

AN INTRODUCTION TO

The UK's Interbank Payment Schemes



Introduction

This overview is for use by organisations considering their options for joining the payments industry in the United Kingdom, or for those already in the industry who are looking to extend their proposition.

This document provides a basic overview of the Payment Schemes, what they offer and then directs the reader to the appropriate contact for engagement with a particular scheme.

There is also a glossary included to provide definition of some of the basic terms used within the industry, to help with common language in early discussions.

“Simple, clear and fair requirements will help make it easier to gain access to the UK’s Interbank Payment Systems. As the economic regulator for the £75 trillion UK payment systems industry, we welcome the work that has been undertaken to produce this guide – which should help introduce organisations to the different access options available to them in each of the payment systems.

The guide also demonstrates progress by the PSOs in taking forward some of the work recommended by the Payments Strategy Forum. It is an encouraging first step in moving towards common terms across the different payment schemes and we look forward to the PSOs continuing to build on this during 2017.”

Hannah Nixon
Payment Systems Regulator

Overview of the Industry

There are many schemes available for different purposes



Six payments schemes in use in the UK



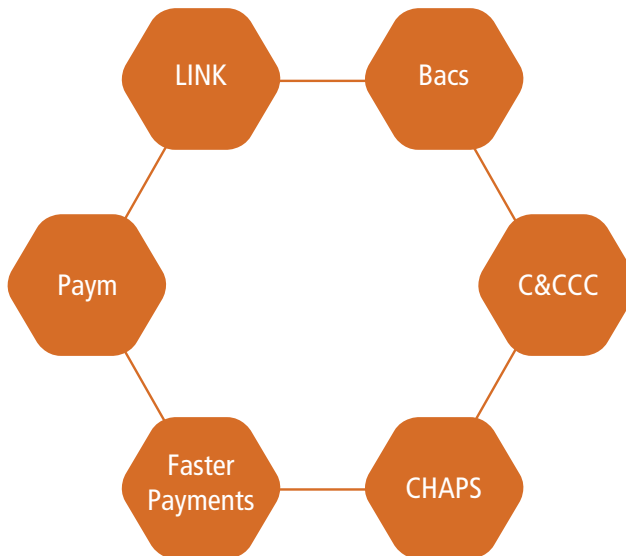
LINK facilitates end-users' access to cash via the UK's largest ATM network.



Paym is the UK's mobile payment service, offering a centralised mobile phone (and other proxies) to bank account lookup service to participating Financial Institutions.



Faster Payments enable real time credits: on-line, telephone and mobile applications.



Bacs is the scheme for regular bulk, file-based credit transfers and Direct Debits.



C&CCC is responsible for managing the processing and settlement of cheques and other paper payment instruments in Great Britain.

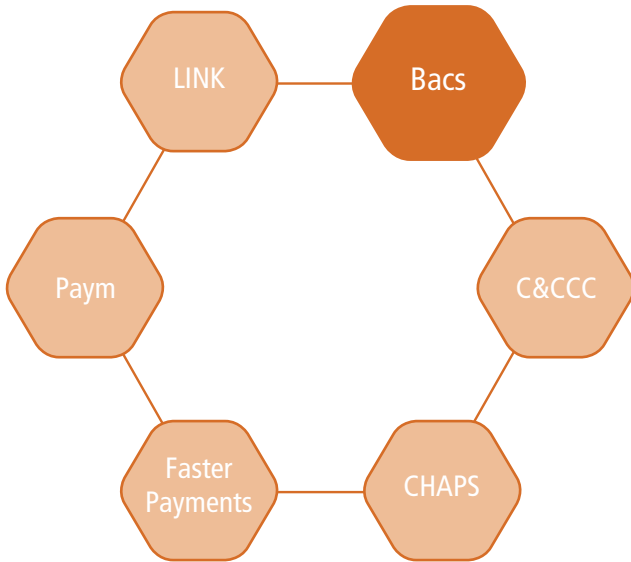


CHAPS is the UK's same day high value payment system for both wholesale and retail payments. Payments are irrevocable and settled same day in central bank funds.

Each payment scheme offers unique properties
The following pages will describe each payment scheme in more detail.

Bacs is the bulk system for high volume, regular retail payments

Bacs is generally used for regular, high-volume, payments



What it is and what it does

- Bacs is the UK's bulk payment system
- It is used for credit transfers and Direct Debits
- The system settles on a multilateral net basis
- Payments are submitted two days prior to the value date

Speed



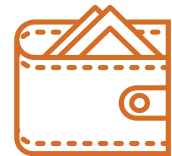
Payments take 2 days to complete

Submission



24/7

Value limit



£20m (Customer grade participants)
£999m (Government and Bank grade participants)

Use cases

Regular, scheduled payments are sent via Bacs:

- Business to Business and Business to Customer
- Bacs Direct Credits
 - Payroll
 - Pensions
 - Benefits
- Direct Debits
 - Supplier payments
 - Utility bills
 - Subscriptions

Operational details

Bacs is the bulk system for high volume, regular retail payments. Bacs Payment Schemes Ltd. (Bacs) sets the rules for the system. It is open for submission 24 hours a day with a cut-off time of 22:30 two days before settlement on value date. Bacs calculates multilateral net settlement totals and forwards payment files to all participating banks, at which point each bank posts transactions to recipient accounts. Posting and settlement occur at the same time on the same day; two days after payments are submitted.

Three access models to join Bacs

Each model varies in responsibilities, implementation complexity, and cost

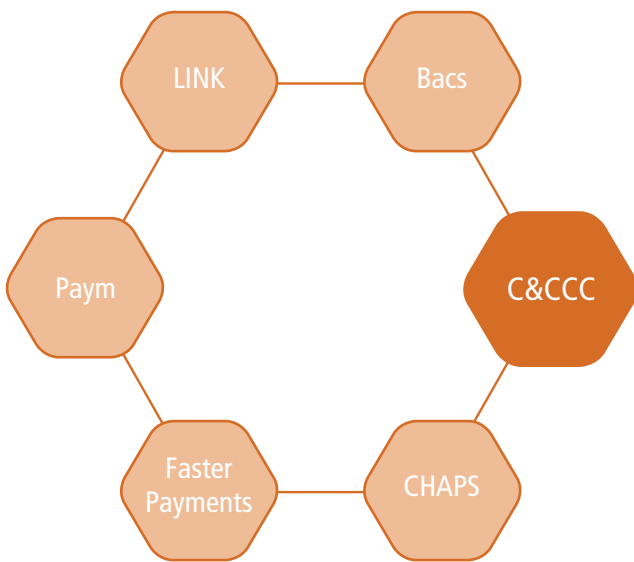
Direct Settling Participant	Direct Non-Settling Participant	Indirect Participant
<ul style="list-style-type: none">• Bank of England settlement account is mandatory• Meet operational and technical requirements• Be a credit institution• Liquidity and risk management tools	<ul style="list-style-type: none">• Settlement sponsored by Direct Settling Participant• Connects directly to Bacs infrastructure• Responsibility to meet operational and technical requirements shared with settlement sponsor	<ul style="list-style-type: none">• Commercial relationship between sponsoring Direct Settling Participant and Indirect Participant• Not responsible for operational and technical requirements• Settlement account at Bank of England not required

Cost considerations for joining scheme

Relative cost		
High	Medium	Low
<ul style="list-style-type: none">• Technology build• Assurance costs• Operational costs	<ul style="list-style-type: none">• Connectivity cost• Security e.g. PKI and HSM• Transaction costs	<ul style="list-style-type: none">• Liquidity costs• Scheme membership• Settlement account cost

C&CCC is the cheque clearing system operator in Great Britain

The system managed by the C&CCC is used for processing & settling cheques and other paper instruments



What it is and what it does

- C&CCC manages the cheque clearing system in Great Britain
- It is used for cheques, bank drafts, warrants, travellers' cheques, government payable orders, and postal orders
- The system settles on a multilateral-net basis
- Cheques can be stopped and returned
- The clearing system also processes credits
- The clearing of cheques and credits in Northern Ireland is managed by the Belfast Bankers' Clearing Company

Speed



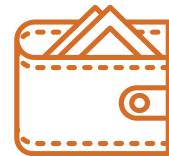
Earn interest from day 2
Can be withdrawn day 4
Cannot be bounced after day 6

Submission



Monday to Friday
Bank opening hours

Value limit



None

Use cases

Uses of cheques:

- Utility bill payments
- Paying tradespeople
- Paying clubs, societies and charities
- Person to Person
- Paying trade suppliers
- Paying wages, salaries & employee expenses
- Refunds

Operational details

The cheque and credit clearing process managed by the C&CCC is for sterling cheques and credits drawn on UK banks and paid into bank accounts in Great Britain. It involves the exchange of items and settlement of payments for customers whose accounts are held either at different banks or at different branches of the same bank in Great Britain. The term bank is used in this context to describe any bank or building society which offers customers a payment account facility.

The cheque clearing which operates to the 2-4-6 cheque clearing timescales give customers certainty on interest, withdrawal and fate. The clearing does not operate on Saturdays, Sundays and bank holidays as settlement across Bank of England accounts can only take place Monday to Friday.

Access models to join C&CCC

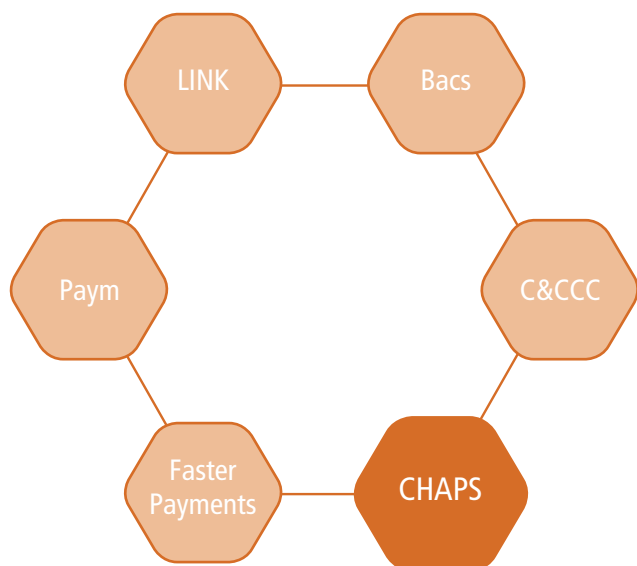
The C&CCC is currently working with the banking industry to agree the changes to the infrastructure and technological capabilities that are required to introduce a new, easier and faster way of clearing cheques across the UK. Called the 'Image Clearing System' (ICS), it will enable cheques to be processed much more quickly than at present by the use of new technology. Timescales for its implementation will be announced in due course.

Access models are currently being developed for the new system.

Participants wishing to access the new system will need to gain the most recent update by contacting the C&CCC directly.

CHAPS is the UK's Real Time Gross Settlement (RTGS) system

CHAPS is used for critical, high value real-time payments



What it is and what it does

- CHAPS is the scheme for high-value wholesale and retail payments
- Payments are irrevocable and settled same day in central bank funds.
- It is chosen for critical payments
- Participants can choose urgent payments (in real-time) or non-urgent same day payments

Speed



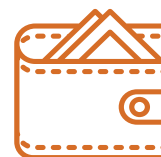
Real-time settlement

Submission



06:00-18:00
Monday - Friday

Value limit



Unlimited

Use cases

Time-critical irrevocable high-value payments are sent via CHAPS:

- Wholesale payments
- Commercial payments
- Corporate payments
- Large value Business to Business transactions
- Retail purchases including house and car purchases
- International sterling payments
- and other time critical payments

Operational details

The CHAPS system is open for settlement from 06:00 until 18:00, with the possibility of extension to 20:00, Monday – Friday. Settlement is continuous during opening hours. Participants can choose to make urgent payments, which settle immediately, or non-urgent payments, which benefit from optimised liquidity management. Each bank's settlement account is credited or debited at the Bank of England in real-time as each payment is presented. The Bank of England sends confirmation of settlement to each participating bank. Processing between Direct Participants is governed by the scheme.

Two access models to join CHAPS

Each model varies in responsibilities, implementation complexity, and cost

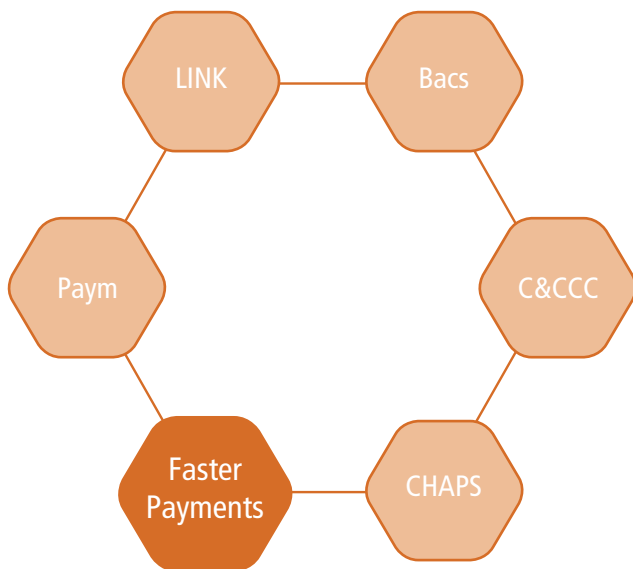
Direct Participant	Indirect Participant
<ul style="list-style-type: none">• A Bank of England settlement account is mandatory• Must become a shareholder of the scheme company• Must comply with legal, operational and technical rules / requirements	<ul style="list-style-type: none">• Commercial relationship between sponsor bank (who is a Direct Participant of the scheme) and the Indirect Participant• Responsible for meeting the criteria set out by the sponsoring bank in support of the overall scheme• Settlement account at the Bank of England not required

Cost considerations for joining scheme

Relative cost		
High	Medium	Low
<ul style="list-style-type: none">• SWIFT• Infrastructure, operational and security requirements	<ul style="list-style-type: none">• External fees• Participation charge (usage based)	<ul style="list-style-type: none">• One off Vocalink charge• Bank of England account management fee• Shareholder charge

Faster Payments is the UK's 24/7 real-time system

Faster Payments (FPS) enables payments to be made in real-time



What it is and what it does

- FPS is a functionally rich, real-time system, 24/7
- Real-time confirmation to sender, and immediate funds availability
- It supports three types of credit transfers:
 - Single immediate payments, forward dated payments, and standing order payments

Speed



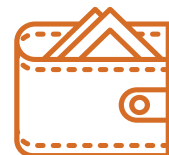
Real-time posting
(may take longer for some indirect participants)

Submission



24/7

Value limit



£250,000.00*

Use cases

FPS is used for time sensitive low-value payments up to £250K:

- Online banking and mobile payments
- Bill payments
- Forward dated payments
- Standing orders (recurring payments)
- Person to Person, Person to Business, Business to Business & Business to Person transactions

Operational details

The Faster Payments Service (FPS) is the UK's low-value real-time system and is one of the richest systems of its type in the world. The rules for the system are set by Faster Payments Scheme Ltd. Posting occurs in near real-time. For some indirect participants, however, posting is slower. Each participant's net settlement totals are forwarded to the Bank of England for settlement three times per day (Monday – Friday, except bank holidays).

*This limit will be reviewed during 2017.

Three access models to join Faster Payments

Each model varies in responsibilities, implementation complexity, and cost

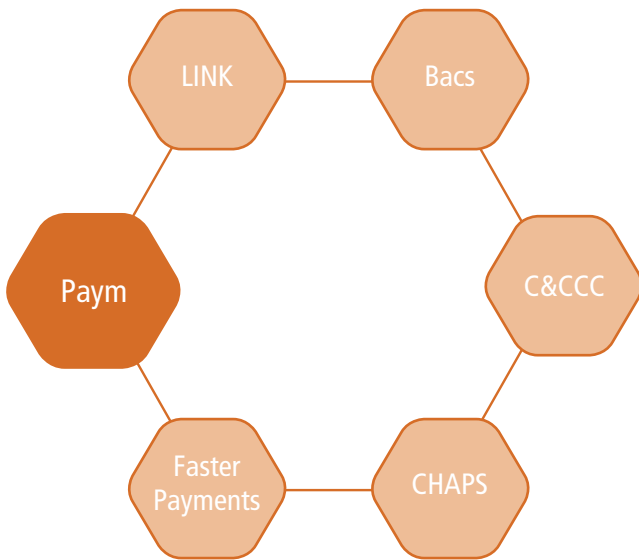
Direct Settling Participant	Direct Non-Settling Participant	Indirect Participant
<ul style="list-style-type: none"> • Bank of England settlement account is mandatory • Participant is solely responsible to meet operational and technical requirements • Ability to receive 24/7 • Liquidity and risk management tools required 	<ul style="list-style-type: none"> • Settlement sponsored by Direct Settling Participant • Direct Non-Settling Participant connected directly to FPS infrastructure • Responsibility to meet operational and technical requirements shared with settlement sponsor • 24/7 availability mandated 	<ul style="list-style-type: none"> • Settlement account at the Bank of England not required • Reduced service level as compared to Direct Settling Participant and Direct Non-Settling Participant • Not responsible for operational and technical requirements • 24/7 not required

Cost considerations for joining scheme

Relative cost		
Higher	Medium	Lower
<ul style="list-style-type: none"> • Technology build • Operational costs • Assurance costs 	<ul style="list-style-type: none"> • Connectivity cost • Security e.g. PKI and HSM • Transaction costs 	<ul style="list-style-type: none"> • Liquidity costs • Scheme membership • Settlement account cost

Paym is the UK's mobile payments service

Paym is typically used for settling IOUs between friends and paying sole traders



What it is and what it does

- Paym is the UK's mobile payments service
- It is a proxy database for initiating payments via Faster Payments or LINK
- Paym transactions settle on a multi-lateral basis via Faster Payments or LINK

Speed



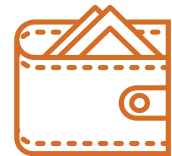
Real-time

Submission



24/7

Value limit



Varies per account holding PSP. £500 in most cases, but can be higher.

Use cases

Paym is used for low-value payments:

- Settling small debts (IOUs) between private individuals (P2P)
- Payments from customer to small businesses or sole traders (C2B)

Operational details

The system is run by the Mobile Payments Service Company Ltd (MPSCo). Paym is a proxy database for initiating payments via Faster Payments or LINK. Users link their mobile phone number (or other proxy) to their bank account, which allows payments to be received using just the proxy – no sort codes or account numbers are needed.

The payer gets added assurance with a confirmation of the recipient's name, before payment is sent.

Depending on the access model, Paym transactions are cleared and settled according to either Faster Payments or LINK procedures.

Paym participants have their choice of FPS or LINK

Each model varies in responsibilities, implementation complexity, and cost

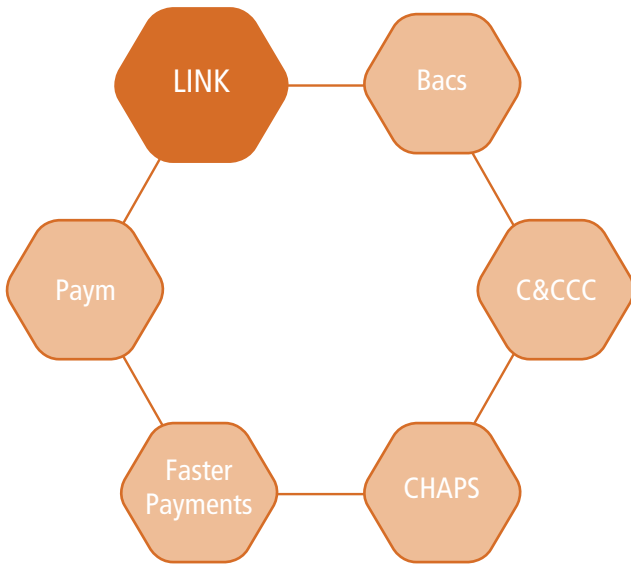
Paym	Faster Payments	LINK
<ul style="list-style-type: none"> • Must be a licensed PSP • Must be able to receive a FPS payment • If a member of LINK, the PSP must be prepared to receive mobile payments via the LINK network • Where both FPS and LINK are available payment routes to the beneficiary, it is the sender's choice as to which one to use 	<p>Direct Participant</p> <p>or</p> <p>Indirect Participant</p>	<p>General Member</p> <p>or</p> <p>Card Issuing Only Member (Only Debit or ATM cards can be registered, not credit cards)</p> <p>or</p> <p>Mobile Payment Only Member</p>

Cost considerations for joining scheme

Relative cost		
Higher	Medium	Lower
<ul style="list-style-type: none"> • Connection to service (could be shared with Bacs) • Security hardware 	<ul style="list-style-type: none"> • Assurance costs • Utility certificate 	<ul style="list-style-type: none"> • Fee based upon volume of usage • No joining fee

LINK is the UK's largest ATM network

LINK is predominantly used for cash withdrawals and balance enquiries



What it is and what it does

- Almost every cash machine in the UK is connected to LINK
- LINK gives bank and building society customers access to cash across the whole of the UK
- Cash machine operators join LINK in order to offer cash to the 100 million plus LINK-enabled cards in circulation
- LINK offers cash withdrawals, balance enquiries, PIN management, charity giving, mobile transactions via Paym, and optional services

Speed



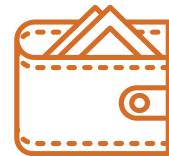
Real-time

Submission



24/7

Value limit



Varies. The daily withdrawal limit is set by the card issuer.

Use cases

LINK is used to facilitate:

- Cash withdrawals
- Balance enquiries
- PIN management
- Charity giving
- Mobile payments processed via Paym
- Optional services*

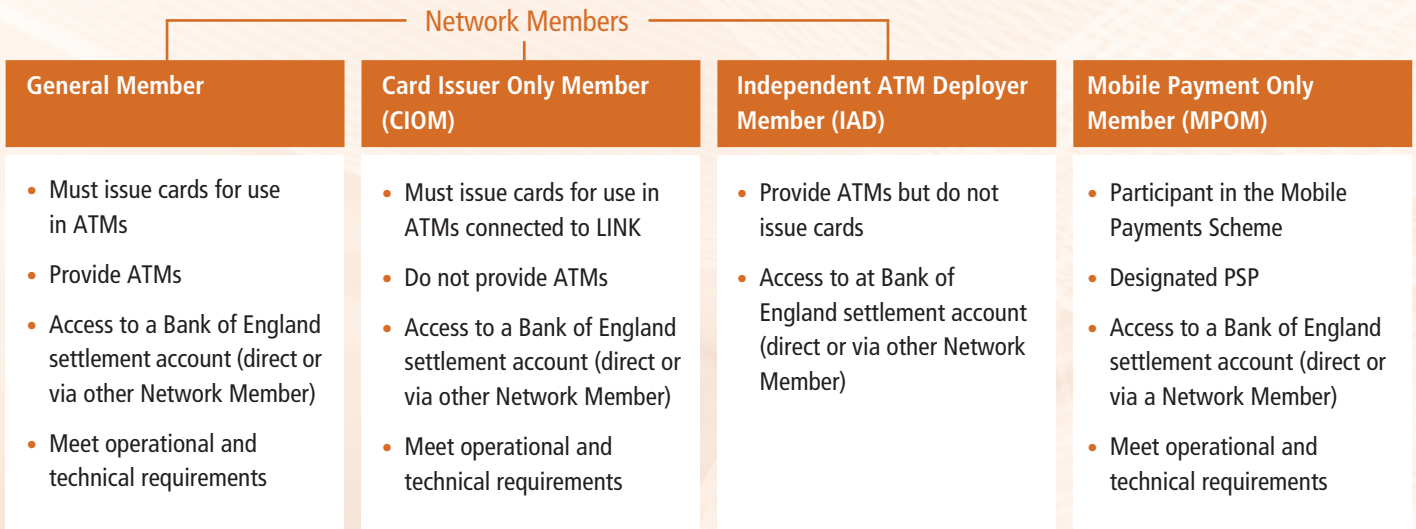
Operational details

LINK is the largest ATM network in the UK, and is operated by Link Scheme Ltd (LSL). It is a real time, message network, which connects all LINK members. LINK processes 24 hours a day with a cut-off time at 20:00 with settlement occurring the following business day (D+1).

*Contact the scheme executive to find out more about optional services.

Membership models to join LINK




Each category of membership varies in responsibilities, implementation complexity, and cost




Cost considerations for joining scheme

- Membership cost
- Processing costs
- Service bureau or direct connection costs depending on connection type

Comparison of electronic payment schemes

	 CHAPS Co	 Faster Payments	 bacs
	CHAPS Payment	Faster Payments	Bacs Payments
Max Payment	Unlimited value	£250k value limit	£20m value limit (Customer grade participant) £999m value limit (Government and Bank grade participant)
Speed	Normally posts to Participants' account within seconds	Normally posts to recipient within seconds	Pre-submitted at least two days in advance
Availability	Monday to Friday 6:00 – 18:00hrs (with possible two hour extension)	Open for submission 24/7	Open for submission 24/7
Settlement	Real Time Gross Settlement (minimal credit risk)	Deferred Net Settlement 3x daily	Deferred Net Settlement daily
Funding	Bank of England Reserves Account pre-funding required	Bank of England Reserves Account pre-funding required	Bank of England Reserves Account pre-funding required
Other Features	Optimised liquidity management	Confirmation to sender	Most suited to bulk submission of payments e.g. payroll payment run
Examples	Wholesale Commercial, Corporate and Retail Payments (including Car / House Purchases)	On-line and telephone banking payments, standing orders	Bacs Direct Credits: Payroll, B2B Direct Debits: Utility Bills






Higher Relative cost per transaction Lower


How to determine which schemes you need to join

The following pages provide some direction as to which schemes could provide the underlying services required to support the features of your propositions.



Summary of Access Options for Interbank Payment Scheme Operators

  	Direct Settling Participant	Direct Non-Settling Participant	Indirect Participant
	Direct Participant		Indirect Participant
	Direct Settling Participant	Direct Non-Settling Participant	Indirect Participant
	<p>Direct connection to the scheme for submitting and receiving messages & reports</p> <p>Settlement occurs via their own Settlement Account at the Bank of England</p>	<p>Direct connection to the scheme for submitting and receiving messages & reports</p> <p>Settlement is performed by a separate Settlement Provider</p>	<p>Indirect Participant sends and receives payments via a Direct Participant</p> <p>Settlement occurs via the Direct Participant's Settlement Account at the Bank of England</p>

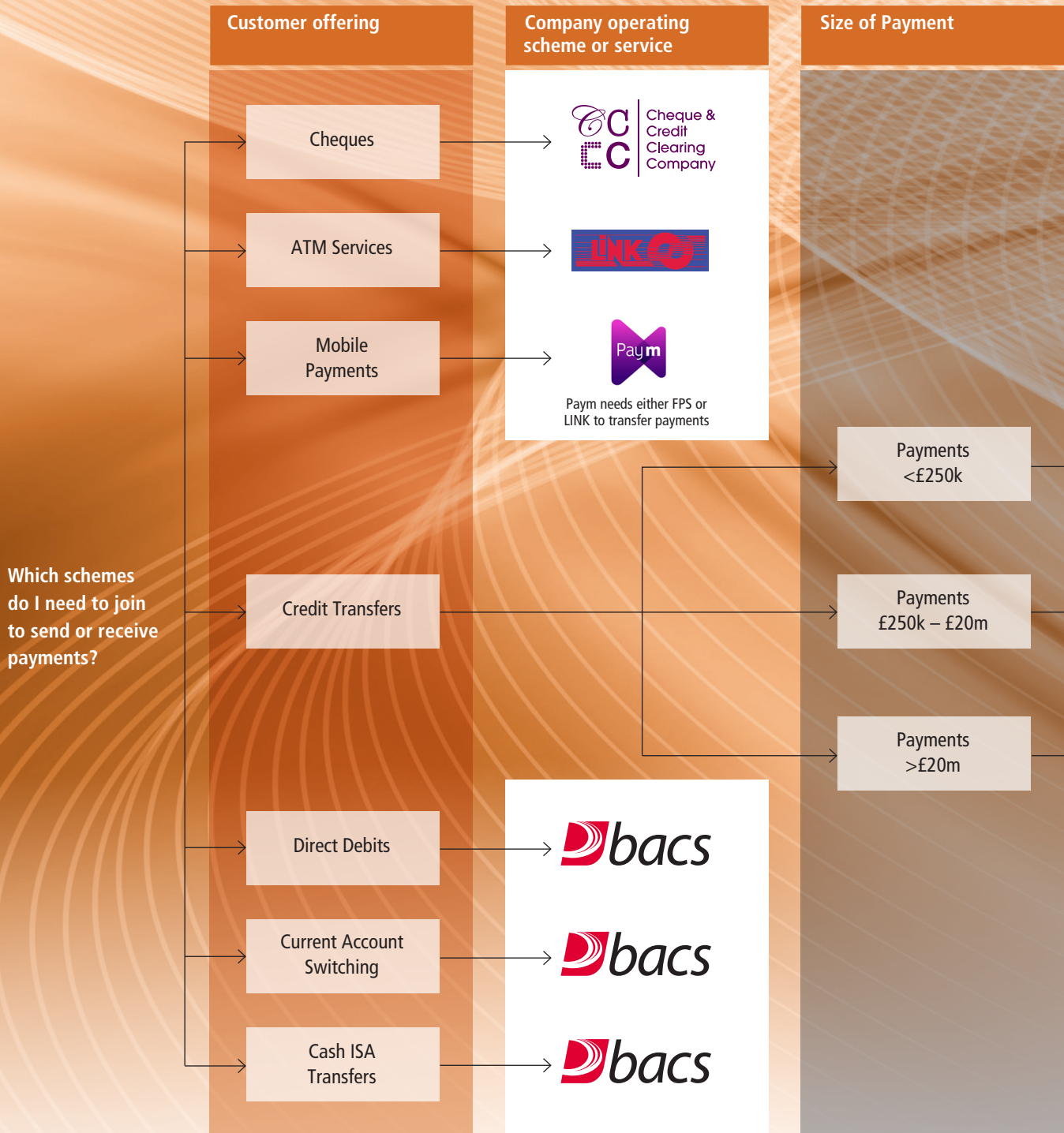
Listed above are the various different options for accessing each scheme. They are arranged by the type of connection and settlement method.

	<p>The Cheque and Credit Clearing Company is currently designing their new access model and should be contacted directly for the latest position.</p>
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Access Options for LINK and Paym

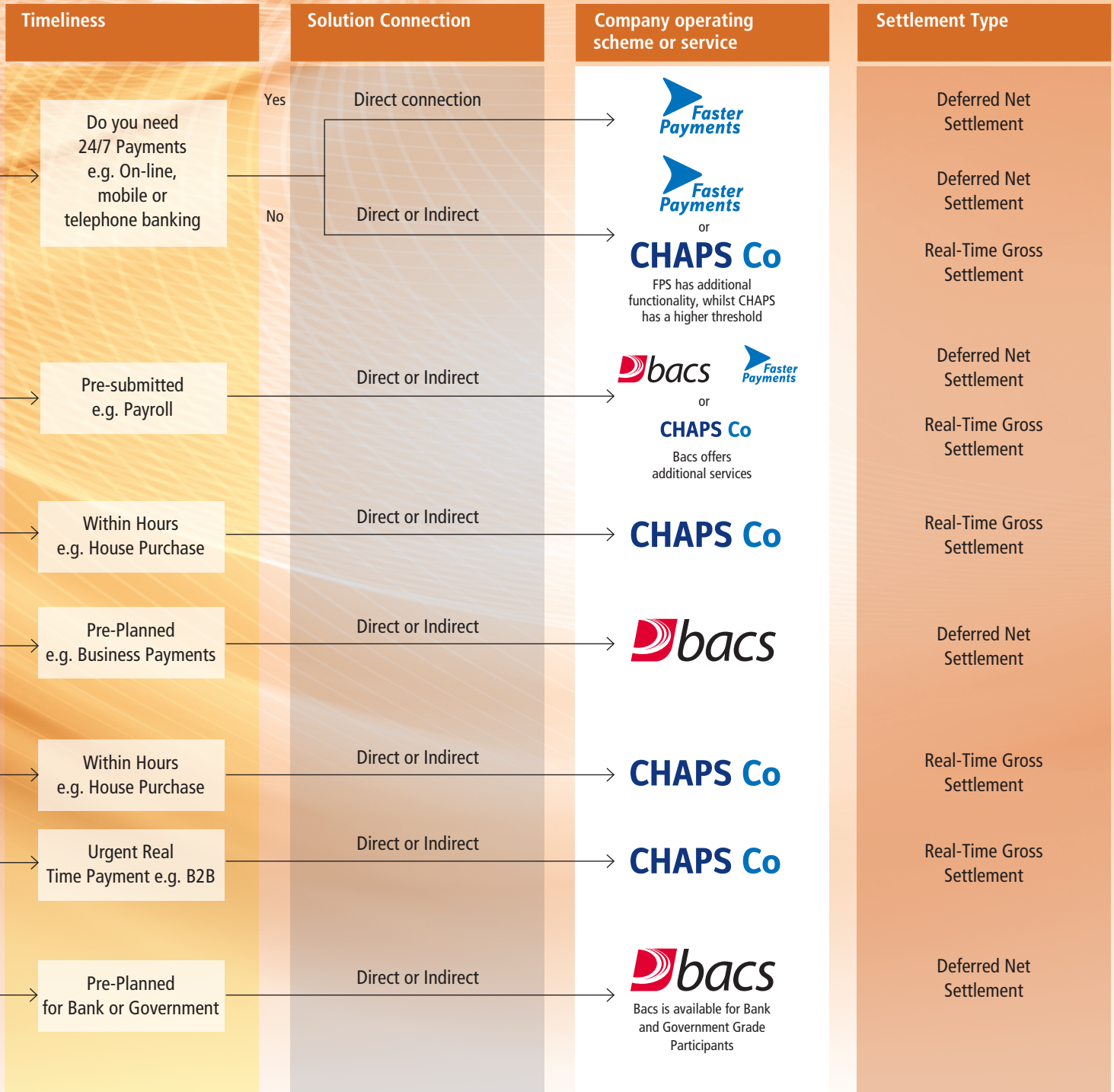
 	General Member	Card Issuer Only Member (CIOM)	Independent ATM Deployer Member (IAD)	Mobile Payment Only Member (MPOM)
	Participant			

Decision tree to help identify which schemes or services I need to participate in to support my customers



Note: The purpose of this diagram is to help a PSP identify the PSOs they need to join to support their proposition. It is important to remember that to allow customers to send or receive payments you need to participate in the appropriate scheme.

Scheme availability can be seen on page 16.



Access Criteria

Having determined which PSOs offer the Scheme or Services you are interested in, you should next look at what will need to be completed to join.

Below is a table which reveals common access criteria for each PSO, which will help you understand what membership will entail.

Topic	General Access Criteria for a PSP to join a PSO
Participant Status	<p>Be a PSP authorised or registered with the FCA (Financial Conduct Authority) to provide payment services under the Payment Services Regulations (2009), or if exempt from above;</p> <p>Provide evidence of the current FCA Part 4A permission under the Financial Services and Markets Act 2000</p> <p>For LINK the Participant should be either an ATM operator or a Card Issuer. Card Issuers must be regulated in a manner accepted by the Bank of England.</p> <p>For CHAPS the Participant must be within the definition as set out in the Financial Markets and Insolvency Regulations 1999</p>
Settlement Arrangements	<p>Must meet the PSO (Payment Systems Operator) requirements for settlement by either:</p> <ul style="list-style-type: none"> • Holding a Settlement Account at the Bank of England, or • Have access to a Settlement Account through a settlement Participant
Legal Opinion	<p>Where the Participant is domiciled outside the UK, you may be asked to provide independent council / legal opinion confirming that the PSO agreements are legally binding and enforceable</p>
Legal Documents	<p>Must sign all legal agreements as required by the PSO</p>
Member / Shareholder	<p>Depending upon which PSO you want to join, you may be required to become a member / shareholder / Guarantor</p>
Costs	<p>Must agree to pay your share of the PSO costs, as required</p>
Compliance	<p>Must agree to comply with the PSO rules and technical requirements and be prepared to undertake assurance activity as required by the PSO or Regulators, before go live and then on-going per the PSO rules</p>

This is a guide to access criteria, specific criteria are published per PSO.

The alternative to joining a PSO is to buy the services from a scheme participant which, depending on your circumstance, might be the most cost effective solution. Should you wish to explore this you should contact the corporate banking division of your chosen bank.

Key Contacts

Having identified the PSOs you are interested in the next step is to make further enquiries. Here is a list of contact details by PSO.

PSO	Contact email	Website
	access@bacs.co.uk	www.bacs.co.uk
CHAPS Co	chapscoenquiries@chapsco.co.uk	www.chapsco.co.uk
	info@chequeandcredit.co.uk	www.chequeandcredit.co.uk
	access@fasterpayments.org.uk	www.fasterpayments.org.uk
	http://www.link.co.uk/contact-us/	www.link.co.uk
	access@paym.org.uk	www.paym.co.uk

Common Terminology

You are likely to come across various terms which are specific to the payments industry, to help here are some of commonly used terms.

Term	Definition
Affiliate	An organisation who is part of either of the industry interest groups: <ul style="list-style-type: none"> • Electronic Payments Affiliates Interest Group • CHAPS Service User Group
Aggregator	An organisation that provides one or more PSPs with technical access to one or more payment systems
Automated Teller Machine (ATM)	A device that enables customers to withdraw cash from their accounts and/or access other services
Bacs	Frequently used as shorthand for either BPSL and/or the Bacs schemes i.e. Direct Debit and Bacs Direct Credit
Bacs Approved Bureau	An organisation that sends payments to Bacs on behalf of another organisation
Bacs Payment Schemes Limited (BPSL)	The PSO that operates the Bacs schemes and other Bacs services (CASS, Cash ISA Transfer Service, BPRS)
Bulk Payment Redirection Service (BPRS)	A service that automatically redirects certain payment types (e.g. Bacs and Faster Payments), and that is primarily used to support the transfer of (typically large volumes of) accounts between PSPs
C&CCC (Cheque & Credit Clearing Company)	The PSO that operates the cheque and credit clearing scheme
Cash ISA Transfer Service	A service that enables customers to transfer cash ISAs between participating providers
CHAPS	The scheme typically used for high value payments which are settled in real-time
CHAPS Co	The PSO that operates the CHAPS scheme
Cheque	A paper instruction to transfer funds from the payer to the payee
Clearing	The processing of a payment between two PSPs
Current Account Switch Service	A free to use service that lets consumers and small businesses switch their current account from one participating bank or building society to another. It has been designed to be simple, reliable and stress-free and is backed by the Current Account Switch Guarantee.
Bacs Direct Credit	The Bacs scheme by which an organisation makes payments in bulk to individual bank accounts e.g. paying salaries
Direct Debit	The Bacs scheme by which an organisation collects pre-notified payments in bulk from individual payers' bank accounts e.g. utility bills
Faster Payments	The scheme used for real-time payments, including Standing Orders, and also supports Paym
Faster Payments Scheme Ltd (FPSL)	The PSO that operates Faster Payments
Image Clearing System (ICS)	The payment system which will support the processing and clearing of cheques and credits by image
Infrastructure Provider	The provider of (or any part of) the infrastructure used for operating a scheme
ISO 20022	An international standard for the development of financial messages
ISO 8583	An international standard used for ATM, credit and debit card and Faster Payments messaging

Term	Definition
LINK	The UK's largest ATM scheme that enables customers to use ATMs and also supports Paym
Link Scheme Ltd	The PSO that operates the LINK scheme
LIS5	The message format used for LINK messages based on ISO 8583
MPSCo (Mobile Payments Service Company Limited)	The company that operates the Paym service
Participant	A PSP that uses a scheme or service
Participant Agreement	The contract between the participant and the scheme/service operating company
Payee	Person or business credited by a payment
Payer	Person or business debited by a payment
Paym	A service that enables payments to be made using a proxy, such as a mobile phone number, to make a payment via Faster Payments or LINK to a bank account
Payment System Operator (PSO)	A company that operates one or more schemes. All PSOs are regulated by the PSR and additionally certain PSOs are supervised by the Bank of England
Payment Service Provider (PSP)	An organisation that provides payment services to their customers typically including making payments and enabling money to be paid into and withdrawn from an account
Payment Systems Regulator (PSR)	The competition-focused, economic regulator of the payments industry established under the Financial Services (Banking Reform) Act 2013
Pre-Funding	Funds held in reserves account at the Bank of England to cover the maximum debit position for each Participant in a scheme
Real-Time Gross Settlement (RTGS)	The real-time settlement of payments on an individual basis i.e. without netting. RTGS is also the name of the Bank of England's RTGS system.
Scheme	A set of rules and technical standards for making payments
Settlement	The movement of money across Bank of England Settlement Accounts to resolve obligations between scheme participants
Settlement Account	An account used in payment processing to facilitate settlement
Settlement Participant	A participant with a settlement account at the Bank of England
Sponsorship	The arrangement by which a scheme or service participant authorises other organisations to use a scheme or service. Sponsorship may also include accepting responsibility for payments of sponsored organisations.
Standard 18	The Bacs standard file/record format used by the Direct Debit and Bacs Direct Credit schemes
Standing Order	An instruction from a payer to their PSP to pay a set amount at regular intervals to the payee's account. The majority of Standing Orders are processed by Faster Payments.
Society for Worldwide Interbank Financial Telecommunication (SWIFT)	The organisation that operates an international network which facilitates the exchange of payment and other financial messages
The Bank	The Bank of England



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Faster Payments Scheme Limited, Link Scheme Limited, Mobile Payments Service Company Limited