Part 1

Standard Chartered innovation

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SCB is building payment and transaction capabilities, digitizing the bank internally and selectively going for digital alliances

- Participate in new payment systems
- Work with various partners to build ecosystems for better reach and access to consumers.

Digital Alliances

- Build a platform for a digital bank via enhancing internal system capabilities

Building a Digital Bank

- Digitize the bank internally across the value chain
- Tab banking originations
- STP through AIP solution for lending products

Digitizing the bank internally

- Build Cross-border remittance capability
- Bridge key payment capability gaps – instant transfers, contactless payments, digital payments etc

Bridge Key Payment gaps

- Look beyond traditional plastics as a payment mechanism and invest in wallets working with Visa/Master schemes and building security through Tokenization

Investing in wallets

- SCB wants to be the ubiquitous payment capability service provider – Local & Cross Border
- SCB will be using a combination of internal builds and strategic external partnerships to offer world class capabilities to our clients

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SCB's approach – strategic builds with external partnerships

Some examples in the consumer banking world

Categories	Who?	Where?
OEM wallets	SAMSUNG pay, pay, Apple Pay	HK – Apple Pay, Android Pay SG – Apple Pay, Samsung Pay and Android Pay
Scheme wallets	MasterPass, VISA Checkout	MasterPass – SG, HK, UAE; other markets being planned in phase 2 developments Visa Checkout – SG, HK, UAE, CN, MY
Mobile wallets / P2P payments	支付宝 Alipay.com, dash, M-PESA	Alipay – China O! E Pay – Hong Kong DASH – Singapore MPesa – Kenya
Domestic transfers	IMPS, Fawri+, FAST	IMPS – India KITS – Kenya EFTS – Bahrain FAST - Singapore
Enhanced P2P capabilities	UPI THE FUTURE OF PAYMENTS	UPI – India DASH – Singapore MPesa – Kenya Other internal builds and partnerships being planned

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Part 2

Building technology to support the banking ecosystem

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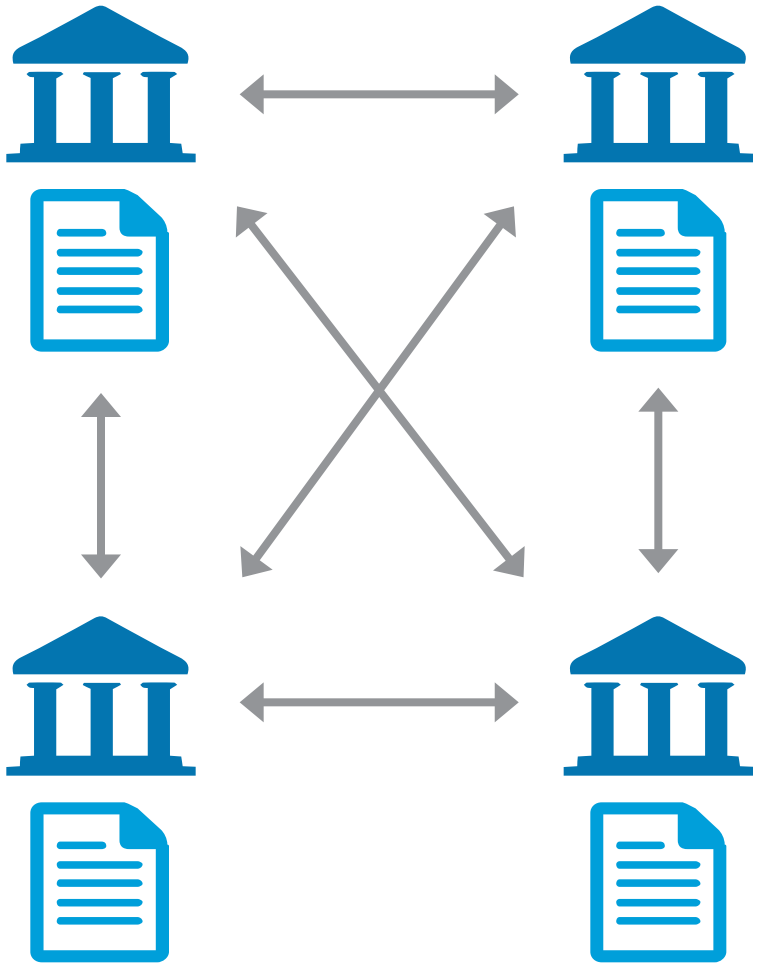
What is Distributed Ledger Technology (DLT)?

Distributed Ledger

- Shared digital record of transactions which are verified by a network of participants
- Records may be private or permissioned and transactions encrypted
- Also commonly termed ‘blockchain’.

Distributed Ledger Technology (DLT)

- Enables multiple parties to create and access a secure, transparent and immutable record of exchange, without the need for a central coordinating body
- Involves an innovative combination of four existing technologies:
  - Peer-to-peer replicated database
  - Cryptographic key encryption
  - Merkle tree hashing
  - Consensus algorithm.



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Example: Real-time cross-border payments via Ripple

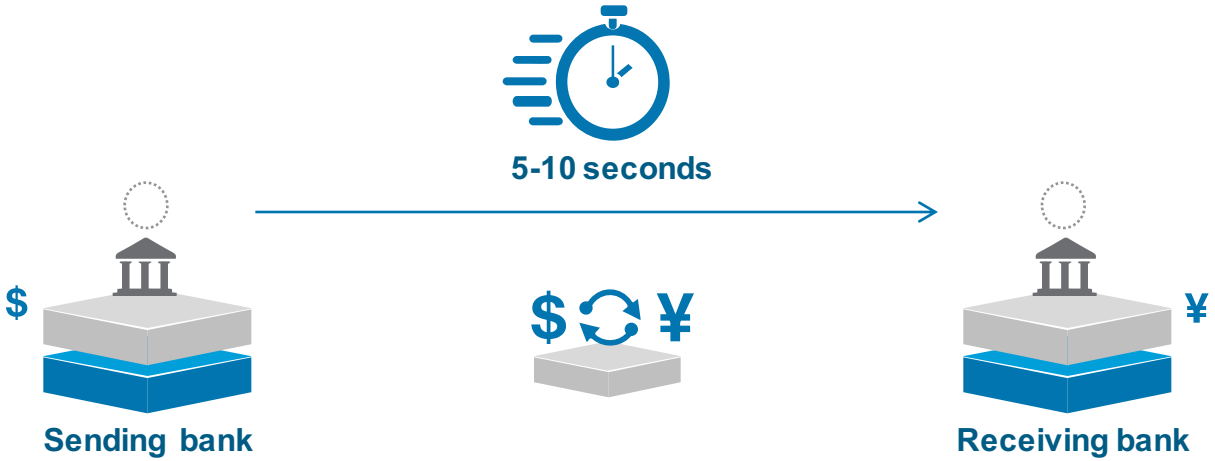
Background

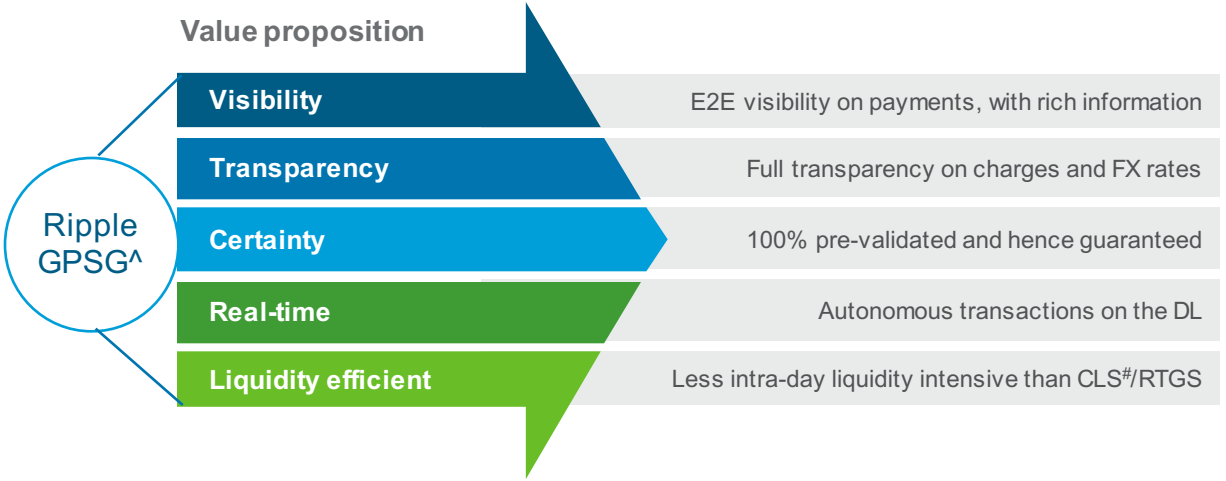
To make interbank payments across countries, most banks relay transactions through a network of correspondent banks which can result in days-long process and increased costs for senders.

DLT* application

Interbank payments can be settled real-time as a straight-through process between Ripple-enabled banks with transactions recorded on the Ripple distributed ledger.

Intrabank transfers can also be optimised with low cost infrastructure and the elimination of reconciliation between multiple internal ledgers.





#CLS: Continuous Linked Settlement

^GPSG: Global Payment Steering Group

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Example: Reducing trade fraud with TradeSafe

Background

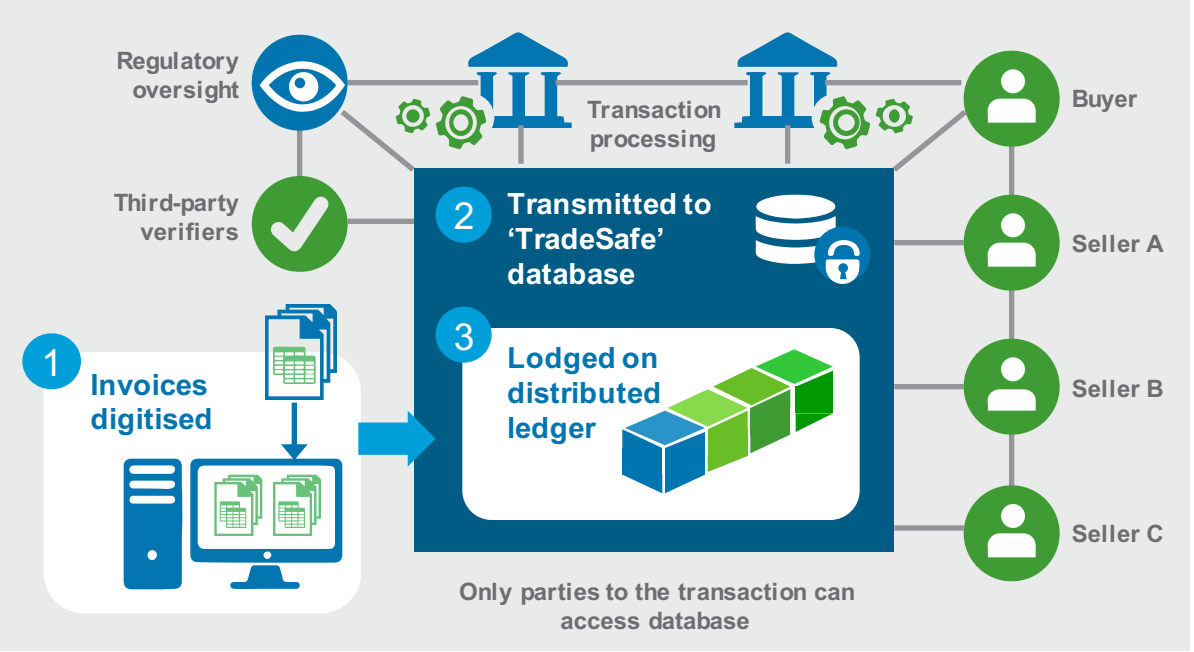
Banks have traditionally used paper documents to verify genuine trades before financing. However, this has never completely removed the risk of double financing or paying fraudulent invoices.

DLT* application

Trade invoices are digitised by banks, giving them unique hash values. These invoices are then transmitted to a database, 'TradeSafe', which lodges them on a distributed ledger. Duplicate invoices are automatically flagged and deleted. Authorised counterparties – whether banks or government bodies – can query and check the status of invoices.

Blockchain improves efficiency and security

How distributed ledger technology can make trade finance more efficient and secure



Further information on TradeSafe

- https://www.sc.com/en/news-and-media/news/asia/2015-12-17-worlds-1st-distributed-ledger-technology.html
- http://growthcrossings.economist.com/article/how-blockchains-might-boost-global-trade/

*DLT = distributed ledger technology

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Part 3

Mobile Money/Mobile Wallet aggregation

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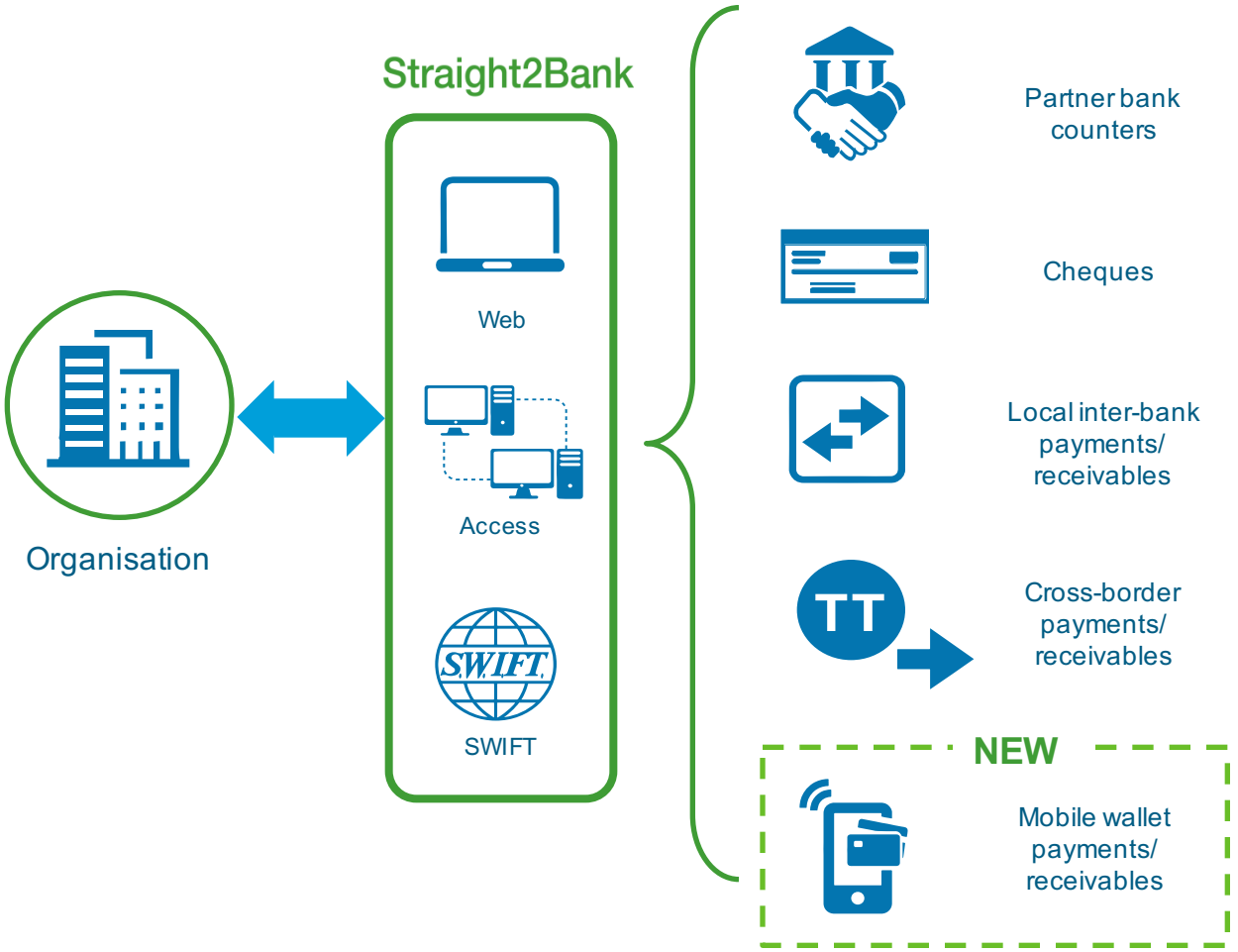
Standard Chartered partners with mobile wallet providers to enable corporate payments / collections with mobile wallets seamlessly



Connectivity to mobile wallet providers via Straight2Bank ensures:

- **Common interface** as other payables and receivables types (ACH, RTGS, TT, cheques etc.)
- **Seamless reporting** with other payables and receivables
- **Control of operational risks** via maker/ checker mechanism in place
- **Standardised processes** are supported through integration between corporate ERP systems with Straight2Bank Access
- **Choice of channel** between Web and Access (Host-to-Host, ERP, SWIFT)
- **Bank-grade security** standards on communication link with MWP, providing peace of mind
- **Connectivity to multiple providers** in one country, ensuring maximum coverage

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Part 3

Case Study Vietnam – Momo

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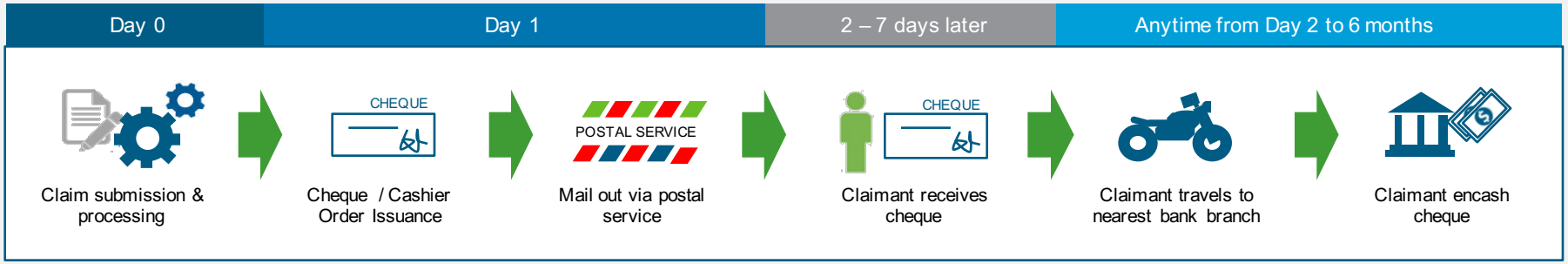
Mobile money payments ensure clear visibility of transactions unlike traditional claim payments via cheque / cashier order

BEFORE

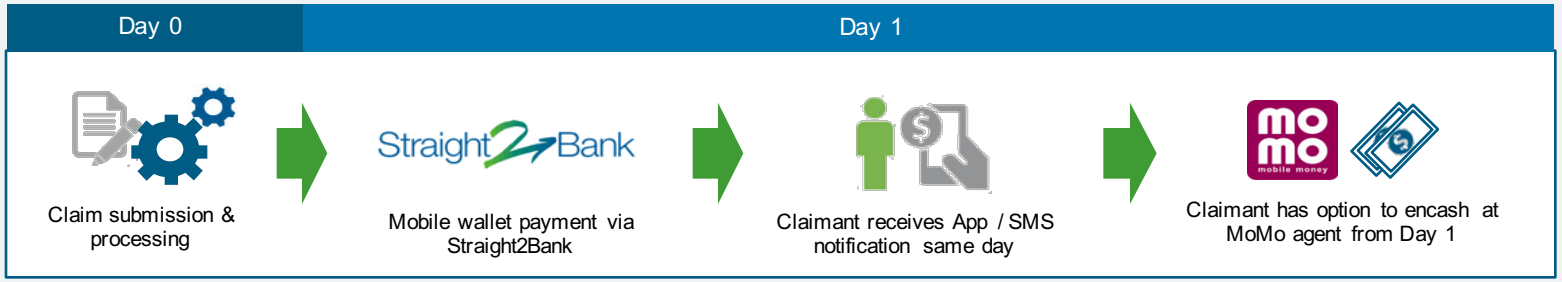


Issues with cheque / cashier order claim payments:

Dates are illustrative only

- Lack of visibility on payment status
- Cheque / cashier order may be unclaimed
- Liabilities remain on company books for extended period of time
- Continuous reconciliation effort required until encashment

AFTER



Benefits of Straight2Bank Wallet payments

- Intra-day payment status update
- Claimant can encash on same day at any MoMo authorized agent / channels

Mobile Money Collections Momo

MOBILE MONEY

Before Mobile Money

Dates are illustrative only

Day 1	Day 2-3	Day 3-4
Individuals	Risks	Client's Bank	Client
Individuals pay bills through cash / bank transfers	○ Cash handling risks ○ Lack of real time confirmation ○ Limited reach to unbanked	Funds credited to client's account	Client receives transaction details ○ Manual reconciliation ○ Delay in settlement / MIS ○ Fraud / human error

After Mobile Money

Day 1	Day 2	Day 1 / 2
Individuals	Mobile wallet provider	Mobile wallet provider's bank		Straight2Bank
Individual pays from the mobile wallet by selecting the appropriate biller ID with appropriate user credentials	Mobile Wallet Provider debits individual's wallet and credits SCB	Funds transferred from wallet provider's account into SCB via interbank clearing	Funds credited to client's account	Client receives collection report with the mobile numbers via Straight2Bank

- Reduced payment lead time
- Reduced cash handling risks
- Available to payers anytime anywhere

- Direct collection from payer reduces financial intermediaries and cost

- Timely, enriched reporting simplifies and automates the reconciliation

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Thank you

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