



HYPERLEDGER

BLOCKCHAIN TECHNOLOGIES FOR BUSINESS

IntellectEU Demo

Smart Correspondent Banking



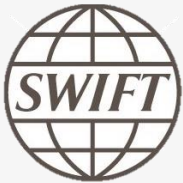
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About IntellectEU

- Custom integration capabilities in **Fintech innovation** and **Blockchain technology**;
- Administer **integration** between large financial networks, middleware, and applications;
- Provide turnkey development, testing and deployment of **Blockchain Proof of Concepts**



10+ years of financial integration experience
20+ countries worldwide
200+ implemented integration projects



SWIFT Integration Partner since 2013
Service Partner since 2009
Solution Partner since 2007



Founding member of Linux Foundation's Hyperledger Project
since early 2016



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Introducing Hyperledger

A **collaborative** effort created to advance **blockchain** technology by identifying and addressing important features for a **cross-industry open standard** for distributed ledgers that can transform the way **business transactions** are conducted globally.



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Hyperledger: Conceptual Definitions

Transaction is a request to the blockchain to execute a function on the ledger. The function is implemented by a **chaincode**.

Chaincode is an application-level code (a.k.a. [smart contract](#)) stored on the ledger as a part of a transaction. Chaincode runs transactions that may modify the world state.

World State is the collection of variables containing the results of executed transactions. It contains key-values pairs stored on the ledger.

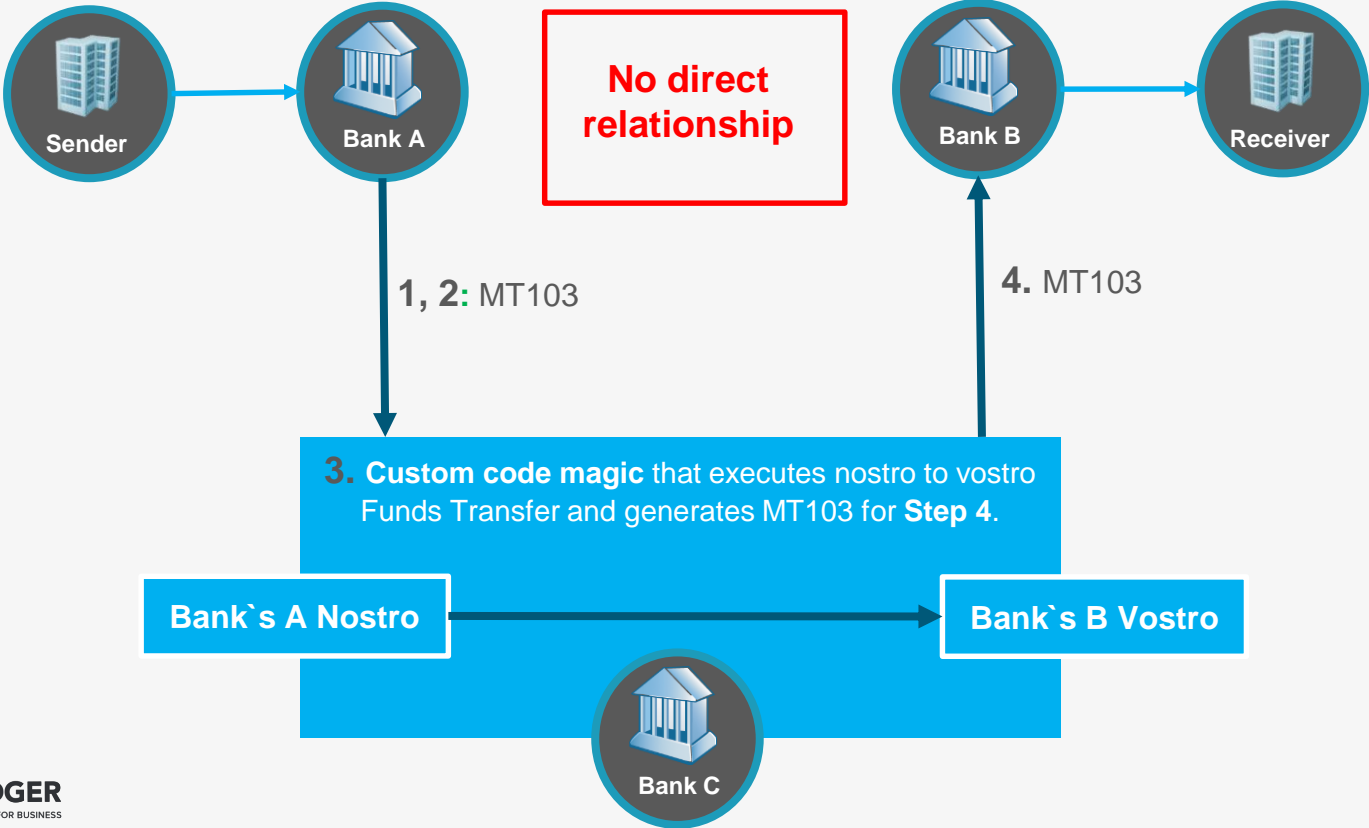
Ledger is a sequence of cryptographically linked blocks, containing transactions and the current **world state**.

Smart Correspondent Banking Strategy

- Preserve existing banking ecosystem, but optimize some of its processes
- Get Blockchain benefits today, rather than tomorrow



Correspondent Banking: Traditional Three Party payment



Smart Correspondent Banking: Concept Definition

- A Smart Contract is the *Financial Product* served by **Bank C** to facilitate correspondent banking operations between **Bank A** and **Bank B**

A **MT103** received from **Bank A** triggers the execution of a chaincode (acting as a Smart Contract) which

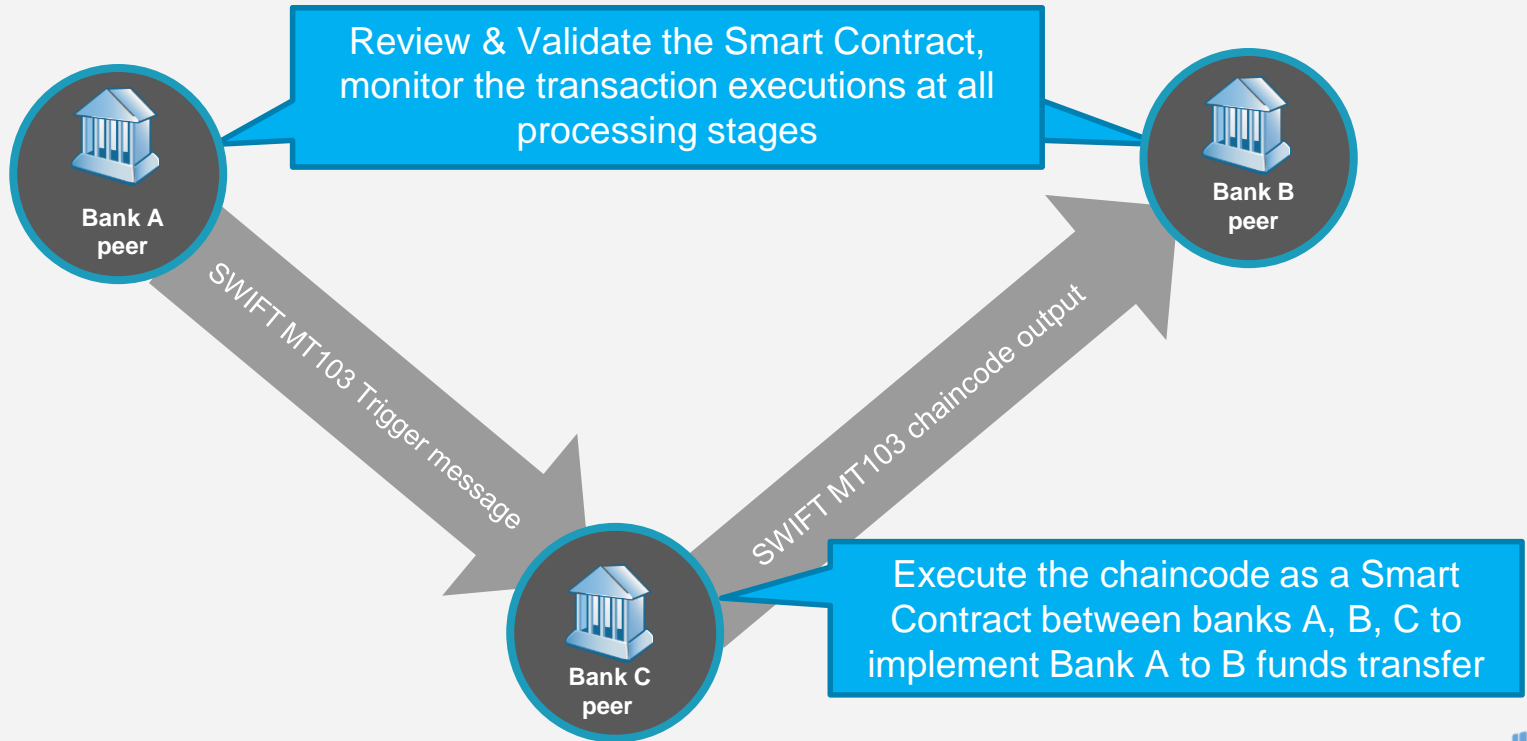
- validates whether bank A's nostro account can be debited and respective bank B's vostro can be credited
- executes Nostro to Vostro funds transfer
- generates MT103 to **Bank B** (optionally)

Smart Correspondent Banking: Concept definition



By Blockchain nature: A smart contract can automate business processes in a trusted way by allowing all stakeholders to process and validate contractual rules as a group (under permissioned model).

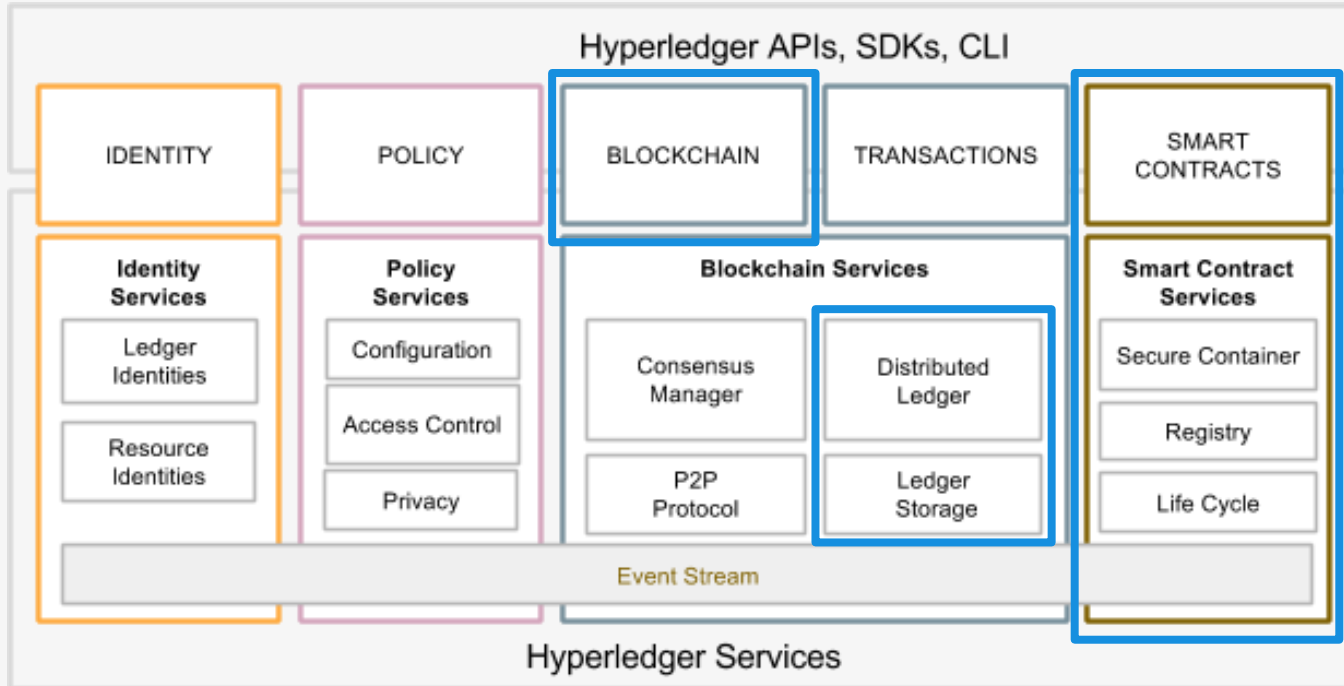
SWIFT & Blockchain eco-system



Goals

- Make correspondent banking transparent and traceable: chaincode and its execution gets viewed & monitored by all parties (under permission model)
- Minimize technical complexity in correspondent banking solutions: exclude middleware and back-office custom code: rely on smart contracts as a single standard.
- Reach **semi-peer-to-peer** funds transfer eco-system

Hyperledger Services





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Q&A

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