



Multi-CBDC prototype shows potential for reducing costs and speeding up cross-border payments

- mBridge project builds on initial experimentations from the Hong Kong and Thailand central banks
- Platform can be an alternative to complexities and inefficiencies of the correspondent banking system
- Joining up national digital currencies in common interoperable platforms, offer central banks a technological clean slate

Abu Dhabi (28 September 2021): A prototype of multiple Central Bank Digital Currencies (mCBDCs) developed by the Bank for International Settlements Innovation Hub and four central banks demonstrated the potential of using digital currencies and distributed ledger technology (DLT) for delivering real-time, cheaper and safer cross-border payments and settlements.

The mBridge project is a cooperation between the BIS Innovation Hub Hong Kong Centre, the Hong Kong Monetary Authority; the Bank of Thailand; the Digital Currency Institute of the People's Bank of China; and the Central Bank of the United Arab Emirates.

The common prototype platform for mCBDC settlements was able to complete international transfers and foreign exchange operations in seconds, as opposed to the several days normally required for any transaction to be completed using the existing network of commercial banks and operate in a 24/7 basis. The cost of such operations to users can also be reduced by up to half, according to the project's report published today.

“The prototype is part of our efforts to design CBDC technology,” said Benoît Cœuré, head of the BIS Innovation Hub. “The project includes experimenting with use cases and trials, balanced with analysis of governance, policy and legal considerations with a focus on cross-border use.”

Correspondent banks

Payments, foreign exchange transactions and other operations usually travel across the world within the networks of large global banks, which serve as bridges between jurisdictions, a system generically known as *correspondent banking*. While serving a critical economic role, these networks and arrangements can be complex, sometimes fragmented, and involve operational inefficiencies. For example, banks work in different time zones, subject to the operating hours of national payment systems. Also,



legally required safeguards to combat money laundering, tax evasion or terrorism financing are repeated by financial institutions in the network.

According to the BIS's most recent [Annual Economic Report](#), mCBDCs, which join up national digital currencies in common interoperable platforms, offer the greatest potential for improving today's systems' limitations. They provide central banks with a "clean slate" start, not burdened by legacy arrangements or technologies.

The mBridge project builds upon the initial investigation by the central banks of Hong Kong and Thailand ([Project Inthanon-LionRock](#)), which first proved the viability of a common CBDC platform between two jurisdictions, by testing critical features such as transaction privacy, foreign exchange matching, monitoring and compliance. The current phase of the project broadens the geographic and diversity of currencies and use cases, adding the Digital Currency Institute's experience with rolling out the [e-CNY](#) pilot in China, and the learnings by the Central Bank of the United Arab Emirates from developing a single-currency blockchain solution with Saudi Arabia ([Project Aber](#)).

Going forward, mBridge will continue to explore existing limitations of the current platform, related to privacy controls, liquidity management and the scalability and performance of DLT in handling large transaction volumes. In addition, the project pipeline will incorporate policy requirements and measures to ensure compliance with jurisdiction-specific regulations, along with testing and investigating appropriate governance models. The project's next phases are expected to include trials in a safe/controlled environment with commercial banks and other market participants.

"Enabling faster and cheaper cross-border wholesale payments, including to jurisdictions that don't benefit from a vibrant correspondent banking system, would be positive for trade and economic development" said Bénédicte Nolens, head of the BIS Innovation Hub, Hong Kong Centre. "mBridge investigates these public good outcomes through a new DLT payment infrastructure that sits at the cross-roads of participating central banks."

The [BIS Innovation Hub](#) is currently working with ten central banks in different projects that investigate different uses of CBDCs (e.g. retail and wholesale), processes and technologies.

"We look forward to bringing our regional experience with developing CBDCs and cross-border payment infrastructures in the Gulf region to a more global context with mBridge, and collaborating with other central banks across the world to implement a robust, efficient and secure cross-border CBDC infrastructure," said Saif Al Dhaheri, Assistant Governor – Strategy, Financial Infrastructure, and Digital Transformation of the Central Bank of UAE.

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