



Monetary Authority  
of Singapore



The Association of Banks  
in Singapore

## **FOR IMMEDIATE RELEASE**

### **JOINT MEDIA RELEASE**

#### **Source-codes of successful distributed ledger prototypes publicly released to encourage innovation in inter-bank payments**

Singapore, 14 November 2017... The industry consortium led by the Monetary Authority of Singapore (MAS) and The Association of Banks in Singapore (ABS) has released the report and source-codes on distributed ledger prototypes for inter-bank payments.

2 The report<sup>1</sup>: *'Re-imagining Interbank Real-Time Gross Settlement Systems Using Distributed Ledger Technology'* describes the prototypes developed on three Distributed Ledger Technology (DLT) platforms (Corda, Hyperledger Fabric and Quorum) and shares the findings and observations from the project.

3 The source-codes and technical documentation of the three successful DLT based prototypes developed in Project Ubin Phase 2<sup>2</sup> have also been released for public access<sup>3</sup> under Apache License Version 2.0. Central banks, financial institutions, as well as academic and research institutions can now tap on the open source-codes to facilitate their experiments, research and innovation. Academics can use the available resources to perform additional research on areas relating to DLT (e.g. scalability, performance, LSM algorithm optimisation). Financial Institutions can reference the privacy-preservation models for internal projects. In addition, the resources enable central banks to reuse the prototypes to conduct internal trials on domestic inter-bank payments.

4 Phase 2 of Project Ubin was conducted together with 11 financial institutions and five technology companies<sup>4</sup>. The successful development of three software prototypes models for decentralised inter-bank payment and settlements with liquidity savings mechanisms was announced on 5 October 2017<sup>5</sup> in a joint release by MAS and ABS.

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<sup>1</sup> The report can be downloaded at: <http://bit.ly/ubin2017rpt>

<sup>2</sup> For more details on Project Ubin, please refer to our website: <http://www.mas.gov.sg/Singapore-Financial-Centre/Smart-Financial-Centre/Project-Ubin.aspx>.

<sup>3</sup> <http://bit.ly/ubin2017codes>

<sup>4</sup> The participating financial institutions are Bank of America Merrill Lynch, Citi, Credit Suisse, DBS Bank Ltd, HSBC Limited, J.P. Morgan, Mitsubishi UFJ Financial Group, OCBC Bank, Singapore Exchange, Standard Chartered Bank, and United Overseas Bank. Accenture was appointed to manage and develop the prototypes. R3, IBM, and ConsenSys were engaged to provide support on the respective DLT platforms of Corda, Hyperledger Fabric and Quorum. Microsoft was engaged to support the deployment of the prototypes on Azure Blockchain.

<sup>5</sup> <http://www.mas.gov.sg/News-and-Publications/Media-Releases/2017/MAS-and-ABS-lead-consortium-to-harness-blockchain-technology.aspx>

5 MAS will further leverage the collective knowledge of the open-source community through the Linux Foundation and the Hyperledger Project<sup>6</sup> and encourage both institutions and individuals to contribute and improve on the prototypes.

6 Sopnendu Mohanty, Chief FinTech Officer, MAS, said, “Open-sourcing these prototypes will encourage other central banks to conduct similar trials and engender further development on domestic inter-bank payments. We aim to link up such DLT-based systems in the future for improved cross-border connectivity. This is our contribution to the global financial ecosystem, and a step towards developing cheaper, safer and more efficient cross-border payments.”

7 Ong-Ang Ai Boon, Director of ABS, said, “Project Ubin has brought the banks together in experimenting with DLT in a collaborative, and multidisciplinary manner. We see immense benefits from such industry partnership that creates a vibrant ecosystem. We are also encouraged that the fruits of our project can be shared with other central banks and players in the financial industry to catalyse more innovations.”

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<sup>6</sup> MAS is an Associate Member of Hyperledger, hosted by The Linux Foundation, since 3 November 2017.

### **About the Singapore FinTech Festival**

Organised by the Monetary Authority of Singapore in partnership with The Association of Banks in Singapore and in collaboration with SingEx Holdings, the Singapore FinTech Festival will provide a platform for collaborations, connections and co-creations within the FinTech ecosystem in Singapore and beyond. In keeping with this spirit, the Festival is supported by the industry. Festival Grand sponsors include AMTD, Deloitte, and Prudential. A series of back-to-back events that will take place from 13 – 17 November 2017, the Festival will comprise the Global FinTech Hackcelerator, Innovation Lab Crawl, FinTech Awards, FinTech Conference, and Investor Summit. For more information, please visit [www.fintechfestival.sg](http://www.fintechfestival.sg).

### **About the Monetary Authority of Singapore**

The Monetary Authority of Singapore (MAS) is Singapore's central bank and integrated financial regulator. As central bank, MAS promotes sustained, non-inflationary economic growth through the conduct of monetary policy and close macroeconomic surveillance and analysis. It manages Singapore's exchange rate, official foreign reserves, and liquidity in the banking sector. As an integrated financial supervisor, MAS fosters a sound financial services sector through its prudential oversight of all financial institutions in Singapore – banks, insurers, capital market intermediaries, financial advisors, and stock exchanges. It is also responsible for well-functioning financial markets, sound conduct, and investor education. MAS also works with the financial industry to promote Singapore as a dynamic international financial centre. It facilitates the development of infrastructure, adoption of technology, and upgrading of skills in the financial industry.

### **About The Association of Banks in Singapore**

The Association of Banks in Singapore (ABS) plays an active role in promoting and representing the interests of the banking community in Singapore. In doing so, ABS works closely with the relevant government authorities towards the development of a sound financial system in Singapore. Since its establishment in 1973, ABS has promoted common understanding among its members and projected a unifying voice on banking issues. It has brought its members closer together through various guidelines and banking practices as well as the support of projects of mutual benefit to face the challenges of the financial and banking community in Singapore. Today, ABS has a membership of 154 local and foreign banks. Further information on ABS is available on the website: [www.abs.org.sg](http://www.abs.org.sg).