



PRESS RELEASE

OneConnect Financial Technology and Singapore Management University advancing the frontiers of blockchain technology

*MOU signed to jointly ascertain the potential of quantum computing in augmenting
blockchain technology to perform complex calculations at high speed*

SINGAPORE, 6 September 2019 - OneConnect Financial Technology Co. Ltd. (OneConnect), an associate company of China's insurance giant and Fortune Top 29 Company Ping An Group, and **Singapore Management University (SMU)** today signed a Memorandum of Understanding (MOU) to jointly conduct research and develop a Proof of Concept (POC) on the potential of quantum computing to augment blockchain technology.

Whilst in its nascent stages, quantum computing has seen a slew of developments in the past few years. By pushing the envelope of innovation, the alliance between OneConnect and SMU aims to ascertain the potential of quantum computing. Not only is quantum computing inherently faster than current classic computing, it is also potentially capable of handling extremely complex calculations and vast amounts of data to produce highly accurate results.

Blockchain applications are now proliferating, and face new challenges in which the underlying properties such as consensus, must remain robust at ever increasing scale and speed. Given the probabilistic nature of consensus and other areas of blockchain such as searching through on-chain data, many potential gains may be achievable with quantum computers. Quantum computing is already being explored in the financial industry for improved optimisation of the pricing of bonds and for predicting the behaviour of complex financial systems. Also, at the present state of AI technology, some machine learning challenges can be mapped onto quantum systems to potentially work on much larger sets of parameters than on standard systems. It has already been shown that quantum computers can be used to break some current encryption and to improve data transmission security. The technology is moving forward at a fast pace although for most applications, there are currently no quantum computers of sufficient size and low enough noise to realise an advantage over traditional computers.

This research collaboration will focus on studying quantum algorithms that could augment blockchain technology in areas of robust large-scale consensus, efficient on-chain data searching, private record validation, high-speed smart contract processing and interoperability between blockchain networks. A POC will be developed to demonstrate how quantum algorithms can be used in blockchain networks once this technology becomes widely available.

Tan Bin Ru, CEO (Southeast Asia) at OneConnect said: "Unravelling what quantum computing and blockchain can become as a whole, allows OneConnect to be the game changer bringing the best and latest technology to market. This is in line with our commitment to accelerate digital transformation. By incorporating OneConnect's industry expertise along with SMU's strong academic research capability, we hope to make innovative contributions towards the development of the blockchain ecosystem in Singapore and the region."

Professor Pang Hwee Hwa, Dean of SMU School of Information Systems said: "This MOU is the first in a series of planned collaborations between SMU and OneConnect. SMU is



developing R&D expertise in blockchain and quantum computing. Through this collaboration, the industry expertise and resources that OneConnect brings will allow us to test our technology in a “real world environment”, and keep our research well aligned with the financial industry.”

The research team is co-led by Associate Professor Paul Griffin from SMU School of Information Systems – whose main research focuses on blockchain applications and more recently, on quantum computing; and Dr Corey Manders, Head of Research and Development at OneConnect Financial Technology. Members of the research team comprise researchers from the SMU School of Information Systems and engineering staff from OneConnect.

The joint research will see SMU leveraging OneConnect’s business expertise and blockchain infrastructure in the real world to obtain concrete data for the research. In addition, OneConnect will also be providing space and resources during the course of the research, including resources to host multiple nodes in a blockchain-based network for research purposes.

The blockchain technology at OneConnect, named FiMax, is helmed by the co-founder of HyperLedger Fabric. FiMax is an open source collaborative platform that advances cross-industry blockchain technology. OneConnect’s blockchain network recently won “Best Blockchain or Distributed Ledger Technology or Platform Award” by The Asian Banker in 2019, for outstanding technical prowess and rich application scenarios of its blockchain technology.

Following this initial collaboration, OneConnect and SMU are in discussion on forging other partnerships, including student programmes and internship positions at OneConnect. OneConnect also plans to train doctoral students in strategic fields for future resources and intellectual property, under the Economic Development Board (EDB)’s Industrial Postgraduate Programme (IPP).

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NOTES TO EDITORS

CORPORATE BIOGRAPHIES

OneConnect Financial Technology

OneConnect, a leading technology-as-a-service platform for financial institutions, is an associate company of the Ping An Insurance (Group) Company of China, Ltd.

The Company integrates extensive financial services industry expertise with market-leading technology to provide technology applications and technology-enabled business services to financial institutions. These solutions enable our customers’ digital transformations, which help them increase revenue, manage risks, improve efficiency, enhance service quality and reduce costs.

OneConnect provides technology applications and technology-enabled business services to multiple verticals in the financial services industry, including banking, insurance and asset management. The Company now has 12 technology solutions across the full scope of their businesses—from sales and marketing and risk management to customer services and



operations, as well as technology infrastructure such as data management, program development, and cloud services.

For more information, please visit www.oneconnectft.com.sg

Ping An

Ping An Insurance (Group) Company of China, Ltd. ("Ping An") is a world-leading technology-powered personal financial services group. With 182 million customers and 513 million Internet users, Ping An is one of the largest financial services companies in the world.

Ping An has two over-arching strategies 'pan financial assets' and 'pan healthcare', which focus on the provision of financial and healthcare services through our integrated financial services platform and our five ecosystems in financial services, healthcare, auto services, real estate services and Smart City services. Our aim is to provide customers and internet users with innovative and simple products and services. As China's first joint stock insurance company, Ping An Group is committed to upholding the highest standards of corporate reporting and corporate governance. The company is listed on the stock exchanges in Hong Kong and Shanghai.

Ping An ranked 7th in Forbes' 2019 Global 2000, and it ranked 29th in Fortune Magazine's 2018 Global 500 Leading Companies. Ping An also ranked 40th in 2019 WPP Milward Brown's BrandZ™ Top 100 Most Valuable Global Brands. For more information, please visit www.pingan.cn

Singapore Management University

A premier university in Asia, the Singapore Management University (SMU) is internationally recognised for its world-class research and distinguished teaching. Established in 2000, SMU's mission is to generate leading-edge research with global impact and to produce broad-based, creative and entrepreneurial leaders for the knowledge-based economy. SMU's education is known for its highly interactive, collaborative and project-based approach to learning

Home to over 10,000 students across undergraduate, postgraduate professional and post-graduate research programmes, SMU, is comprised of six schools: School of Accountancy, Lee Kong Chian School of Business, School of Economics, School of Information Systems, School of Law, and School of Social Sciences. SMU offers a wide range of bachelors', masters' and PhD degree programmes in the disciplinary areas associated with the six schools, as well as in multidisciplinary combinations of these areas.

SMU emphasises rigorous, high-impact, multi- and interdisciplinary research that addresses Asian issues of global relevance. SMU faculty members collaborate with leading international researchers and universities around the world, as well as with partners in the business community and public sector. SMU's city campus is a modern facility located in the heart of downtown Singapore, fostering strategic linkages with business, government and the wider community.



MEDIA CONTACTS

For and on behalf of OneConnect Financial Technology

Katrina Karim

The Public Relations Company Pte Ltd

Email katrina@thepublicrelationscompany.com

Mobile (+65) 9844 6618

OneConnect Financial Technology

Alicia Neo

PR Manager

Email alicianeo@pingan.com.cn

Mobile (+65) 8200 0022

Singapore Management University

Teo Chang Ching

Senior Assistant Director, Corporate Communications

Mobile (+65) 94318353