IBM Delivers Blockchain-As-A-Service for Developers; Commits to Making Blockchain Ready for Business

New IBM Cloud Services Help Developers Put Blockchain Code to Work - IBM Garages in London,
New York, Singapore and Tokyo to Help Banking and Financial Services and other Industries Start
Using Blockchain - IBM Offers 44,000 Lines of Code as Founding Member of the Linux Foundation's
Hyperledger Project

ARMONK, N.Y. - 16 Feb 2016: To help developers quickly begin exploring the use of blockchain in the enterprise, IBM (NYSE: IBM) has made nearly 44,000 lines of code available to the Linux Foundation's open source Hyperledger Project to help developers easily build secure distributed ledgers that can be used to exchange most anything of value. Today, IBM also made a range of announcements spanning technology and business consulting to rapidly advance the use of distributed ledger technology across multiple industries:

- New blockchain services on the IBM Cloud: New blockchain services help create and manage blockchain networks to power a new class of distributed ledger applications. Developers can create digital assets and accompanying business logic to more securely and privately transfer assets among members of a permissioned blockchain test network. Using IBM's new blockchain services available on Bluemix, developers can access fully integrated DevOps tools for creating, deploying, running and monitoring blockchain applications on the IBM Cloud. Blockchain applications can also be deployed on IBM z Systems, enabling an additional level of security, availability and performance for handling sensitive and regulated data. Blockchain applications can access existing transactions on distributed servers and z Systems through APIs to support new payment, settlement, supply chain and business processes.
- Enabling Internet of Things (IoT) data on blockchain: Using its Watson IoT Platform, IBM will make it possible for information from devices such as RFID-based locations, barcode-scan events, or device-reported data to be used with IBM's Blockchain. Devices will be able to communicate to blockchain-based ledgers to update or validate smart contracts. For example, as an IoT-connected package moves along multiple distribution points, the package location and temperature information could be updated on a blockchain. This allows all parties to share information and status of the package as it moves among multiple parties to ensure the terms of a contract are met.
- IBM Garages for blockchain app design and implementation: To help accelerate the design and development of blockchain applications, IBM Garages will open in London, New York, Singapore and Tokyo to enable IBM experts to collaborate with developers on the design and implementation of blockchain for business. IBM Global Business Services will also expand its blockchain consulting practice for clients in banking and financial services and logistics. IBM Interactive Experience (IBM iX), the largest global digital agency, will also engage clients to co-design new use cases for blockchain in more than 25 IBM Studios around the globe.

New blockchain services from IBM help developers create and manage blockchain networks to power a new class of distributed ledger applications. Developers can create digital assets and accompanying business logic to more securely and privately transfer assets among members of a permissioned blockchain test network. IBM Blockchain user interface designers, Dante Guintu, left and Andrea Lee, work on secure blockchain apps at IBM San Francisco. (George Nikitin/Feature Photo

IBM is working with a number of global partners including London Stock Exchange Group and the Finnish business development organization, Kouvola Innovation. "London Stock Exchange Group is directly engaged in the development of the open blockchain technologies with IBM and we are excited to help enable the creation of solutions that will help manage risk and bring additional transparency to global financial markets," said Moiz Kohari, EVP, group head of technology innovation, London Stock Exchange Group. "We believe this technology has the potential to drive change across the industry but will need to be developed in partnership with customers and industry participants under an open source approach."

"Blockchain provides a revolutionary approach that enables businesses across industries all around the world to completely change their logistics business and operations," said Mika Lammi, head of IoT business development at Kouvola Innovation, Finland. "We're excited about the potential for blockchain to transform logistics value chains into a more seamless process that provides a trusted view of every piece of cargo. The IBM Blockchain fabric, together with the Watson IoT platform, offers great potential to bring together the physical and digital worlds in a way that has never been done before."

This news underscores IBM's recent submission of nearly 44,000 lines of code to the Linux Foundation's Hyperledger Project. As a founding member of the Hyperledger Project, IBM's code was developed through the collaboration of more than 35 global IBM Researchers and software developers dedicated to the Linux Foundation project, and more than 100 technical architects focused on making blockchain ready for business. IBM offered code to the open source Hyperledger Project to help developers easily build secure distributed ledgers that can be used to exchange most anything of value.

IBM's unique capabilities:

- Pluggable architecture to allow developers to use software modules (consensus module for example) that best suits their needs.
- A new consensus algorithm developed by IBM Research tailored to specific blockchain use cases.
- Advanced identity management built with the latest cryptography.
- Smart contracts that can be written in popular programming languages such as Java or Golang and executed in containers.
- Fine-grained privacy and confidentiality control allows authors of smart contracts to precisely specify both who can view them and who can execute them.

"In just a few short months, IBM's vision for making blockchain a powerful new business solution across multiple industries is becoming a reality as our clients begin piloting innovative new code, services and z Systems optimized for distributed ledgers," said Arvind Krishna, Senior Vice President, IBM Research. "These advancements are making it easier for developers to move from understanding the potential of blockchain, to actually using it to change their business processes in powerful new ways."

For more information, visit: www.ibm.com/blockchain

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New Blockchain Services on the IBM Cloud

New blockchain services from IBM help developers create and manage blockchain networks to power a new class of distributed ledger applications. Developers can create digital assets and accompanying business logic to more securely and privately transfer assets among members of a permissioned blockchain test network. IBM Blockchain user interface designers, Dante Guintu, left and Andrea Lee, work on secure blockchain apps at IBM San Francisco.

IBM Unleashes Blockchain As-A-Service For Developers

IBM Blockchain user interface designers, Dante Guintu, left and Andrea Lee, work on secure blockchain apps at IBM San Francisco. To help developers quickly begin exploring the use of blockchain in the enterprise, IBM today announced new blockchain services on the IBM Cloud and IBM Garages to open in London, New York, Singapore and Tokyo. These and other advancements using IBM Blockchain will rapidly enable the use of distributed ledger technology across multiple industries. (George Nikitin/Feature Photo Service for IBM)

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