

**Mitsubishi UFJ Financial Group, Inc. (MUFG)**  
**Akamai Technologies, Inc.**

## **MUFG and Akamai Develop a New Blockchain Service To Offer New Payment Network Platform**

**Tokyo, May 21, 2018** --- MUFG and Akamai Technologies, Inc. (“Akamai”) are pleased to announce the development of a new blockchain service, to realize the world’s most scalable and fastest payment processing platform with a capacity to process a million transactions per second and the ability to finalize transactions in less than 2 seconds. By combining MUFG’s payments business expertise with advanced blockchain technology implemented on Akamai’s global cloud delivery platform, they aim to offer a new global payment network<sup>1</sup> service from fiscal year 2019 compatible with IoT and other new technologies.

### 1. Details

Blockchain has been attracting attention in the past few years due to its potential to strengthen protection against falsification of transactions and drastically lower costs, and many financial institutions around the world have partnered with IT firms to test various proof of concept designs. In this environment, MUFG has engaged in numerous collaborative research projects with Akamai, focusing on Akamai’s high-speed network and distributed computing technology.

As a result, MUFG and Akamai verified that by using this new blockchain technology under realistic business conditions, Akamai’s platform was capable to process transactions in less than 2 seconds, processing a million transactions per second. There is also potential to further develop this processing ability, permitting the handling of 10 million transactions per second.

### 2. About the Technology

Blockchain’s transaction speed and processing capacity are determined by the speed of consensus decision-making between the nodes<sup>2</sup> that make up the blockchain. The two important factors behind this are the speed of the network between the nodes, and the time required for new blocks within a node to be created and validated. The new service enables higher transaction speed and processing capacity by adopting the following system structure:

- (1) Achieving high-speed communication between nodes by positioning all nodes responsible for consensus decision-making on the Akamai Intelligent Platform<sup>3</sup>.

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<sup>1</sup> Infrastructure that will support a variety of payment transactions.

<sup>2</sup> Computers that relay information.

<sup>3</sup> A cloud delivery platform composed of server groups located at more than 3,800 points across 135 countries, offering high speed transmission of information over the internet.

- (2) Developing a unique design permitting high-speed and high-capacity creation and verification of new blocks within nodes.

Until now, initiatives to increase the speed of blockchain had to sacrifice its fundamental structure or features<sup>4</sup>.

MUFG and Akamai's blockchain-based platform offers higher capacity and increased transaction speed while preserving the intrinsic merits of blockchain<sup>5</sup>.

### 3. Outline of Target Specifications for Network

The new payment network will be a diverse payment service equipped with an interface that can be used as a communications network, and including functions for the transfer and management of value through blockchain. This will allow for a significant reduction of transaction costs for all kinds of payment services, and could support a large expansion in transaction numbers.

MUFG and Akamai, using Akamai's globally deployed high-speed and high-security platform, will utilize this new blockchain's high-speed processing and secure value transfer abilities to promote pay-per-use, micropayments, and other new IoT generation payment methods, and to support the diverse payment options of the sharing economy by offering an open platform.

### 4. About Akamai

As the world's largest and most trusted cloud delivery platform, Akamai makes it easier for its customers to provide the best and most secure digital experiences on any device, anytime, anywhere. Akamai's massively distributed platform is unparalleled in scale with over 200,000 servers across 130 countries, giving customers superior performance and threat protection. Akamai's portfolio of web and mobile performance, cloud security, enterprise access, and video delivery solutions are supported by exceptional customer service and 24/7 monitoring.

#### Company Overview

Name	Akamai Technologies, Inc.
Location	Cambridge, Massachusetts, USA
Date established	1998
Number of offices	58 locations in 28 countries
CEO	Tom Leighton (Professor, MIT)
Business	High-speed transmission of content and applications over the Internet

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<sup>4</sup> For example, creating blockchain from a few nodes installed in the same location in order to increase communication speed between nodes, or processing several transactions but committing only the final differences to the blockchain. In the first example, blockchain loses its inherent high availability (the ability for the system to operate continuously), and in the second example, blockchain's ability to create detailed transaction records is hindered.

<sup>5</sup> All transactions recorded on a blockchain are shared among stable nodes at numerous locations, preventing the falsification of data.

## **About MUFG**

Mitsubishi UFJ Financial Group, Inc. (MUFG) is one of the world's leading financial groups. Headquartered in Tokyo and with over 360 years of history, MUFG has a global network with over 1,800 locations in more than 50 countries. The Group has over 150,000 employees and offers services including commercial banking, trust banking, securities, credit cards, consumer finance, asset management, and leasing. The Group aims to "be the world's most trusted financial group" through close collaboration among our operating companies and flexibly respond to all of the financial needs of our customers, serving society, and fostering shared and sustainable growth for a better world. MUFG's shares trade on the Tokyo, Nagoya, and New York stock exchanges.

For more information, visit <https://www.mufg.jp/english>.

On April 1, 2018 the name of MUFG's commercial bank changed from "The Bank of Tokyo-Mitsubishi UFJ, Ltd." to "MUFG Bank, Ltd." Many of the bank's overseas subsidiaries followed suit on the same day, but branches and subsidiaries in some countries will carry out the name change at a later date. MUFG's New York Stock Exchange ticker symbol also changed to "MUFG."

For more information regarding overseas subsidiaries, visit

[http://www.bk.mufg.jp/global/newsroom/announcements/pdf/201803\\_namechange.pdf](http://www.bk.mufg.jp/global/newsroom/announcements/pdf/201803_namechange.pdf)