MUFG Bank, Ltd.
NTT DATA Group Corporation
NTT WEST, Inc.

MUFG Bank, NTT DATA and NTT West Publish PoC Report on Inter-Data Center Connectivity Using IOWN APN

Tokyo, December 19, 2025 -- MUFG Bank, NTT DATA and NTT West today announced the public release of a new white paper, *"PoC Report: Inter-DC VM Migration and Long-Distance DB Replication for Financial Industry,"* published through the IOWN Global Forum. The report summarizes the results of joint technology validation initiatives designed to assess how IOWN's All-Photonics Network (APN) can support next-generation financial systems.

Financial institutions face stringent requirements for reliability and disaster resilience. As a result, many organizations are exploring the use of geographically distributed data centers. To utilize computing resources effectively across distant locations, systems must be able to transfer workloads and data at high speed while minimizing downtime.

Additionally, rapid infrastructure recovery during large-scale incidents requires secure and stable environments that enable low-latency or near-real-time data replication across remote sites. IOWN APN technology is gaining attention as a way to meet these needs by providing ultra-low latency, high bandwidth and improved energy efficiency.

MUFG Bank and NTT DATA have jointly led discussions on the application of IOWN technologies to next-generation financial architectures. Through the IOWN Global Forum, the companies have previously released:

- A white paper outlining how IOWN can drive digital transformation in the financial sector (July 2024, [1])
- A reference implementation model and comprehensive guidelines for evaluating IOWN-based systems (February 2025, [2])

Building on these efforts, MUFG Bank, NTT DATA and NTT West have now compiled the results of practical validation tests designed to meet financial-grade requirements.

Overview of the Proof-of-Concept

1. **Seamless relocation of workloads across multiple data centers**
   Validation of live virtual-machine migration with sub-second downtime across APN-connected sites.
2. **Long-distance database replication**
   Evaluation of synchronous and asynchronous PostgreSQL replication over distances equivalent to 250–2,500 km, including application-level latency, throughput and RPO/RTO performance.
3. **Long-distance high-reliability storage networking**
   Testing of Fibre Channel SAN operations over APN to assess the feasibility of geographically distributed storage systems.

MUFG Bank, NTT DATA and NTT West will continue to collaborate on developing new ICT systems and services that leverage IOWN technologies. The three organizations plan to further expand technical validation within the financial domain, utilizing APN and other IOWN components.

Through continued contributions to the IOWN Global Forum, the companies aim to share practical insights, foster new industry use cases and promote the wider adoption of IOWN technologies, ultimately helping to create new value across the wider ecosystem.

- End -

[1]: “Services Infrastructure for Financial Industry Use Case”: https://iowngf.org/content-type/use-cases/
[2]: “Reference Implementation Model and Proof-of-Concept Reference of Services Infrastructure for Financial Industry Use Case”: https://iowngf.org/content-type/technology-docs/

About MUFG Bank

MUFG Bank, Ltd. is Japan’s premier bank, with a global network spanning around 40 countries. Outside of Japan, the bank offers an extensive scope of commercial and investment banking products and services to businesses, governments and individuals worldwide. MUFG Bank’s parent, 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 approximately 2,000 locations in more than 40 countries. The Group has about 140,000 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.

About NTT DATA

NTT DATA is a $30+ billion business and technology services leader, serving 75% of the Fortune Global 100. We are committed to accelerating client success and positively impacting society through responsible innovation. We are one of the world’s leading AI and digital infrastructure providers, with unmatched capabilities in enterprise-scale AI, cloud, security, connectivity, data centers and application services. Our consulting and industry solutions help organizations and society move confidently and sustainably into the digital future. As a Global Top Employer, we have experts in more than 70 countries.

We also offer clients access to a robust ecosystem of innovation centers as well as established and start-up partners. NTT DATA is part of NTT Group, which invests over $3 billion each year in R&D.

Visit us at nttdata.com.

About NTT WEST

NTT West is a Value Creation Partner dedicated to co-creating a prosperous future society through safety, security and trust, alongside cutting-edge technology. Leveraging our technology, expertise and assets in the information and communication business space, we create new value. As a testament to our commitment, we serve over 10 million[1] fixed-line broadband service subscribers in western Japan. We empower digital transformation to address diverse societal and industrial challenges, working alongside regions and customers. Through open innovation facilities, we foster co-creation with partners across industries. Ultimately, by leveraging NTT Group's advanced technologies, including IOWN and generative AI, we drive innovation and create new opportunities.

[1] Including Hikari collaboration model.

About IOWN Global Forum

The IOWN Global Forum was established in 2020 as a private sector organization to develop IOWN technologies and use cases. As of the end of 2025, it comprises over 170 organizations. The objective of the IOWN Global Forum is to accelerate innovation and adoption of a new communication infrastructure that meets our future data and computing requirements through the development of new technologies, frameworks, specifications, and reference designs in areas such as photonics R&D, distributed computing, use cases and best practices. For more information, visit IOWN Global Forum – Innovative Optical and Wireless Network.