



AU KABUCOM SECURITIES DEVELOPS NEXT-GENERATION SYSTEM TO SUPPORT DIGITAL TRANSFORMATION

Becoming the “MUFGxKDDI Digital Financial Enterprise”

HPE Server and Storage portfolio fully adopted
HPE Pointnext Advisory Services contributed to
realize their vision

“On HPE Superdome Flex, we are deploying our most critical applications, the ordering infrastructure system RAIDEN and the Core Banking system.”

– Yousuke Takeuchi, Junior Specialist, Infrastructure Group System Engineering Department, au Kabucom Securities Co., Ltd.



OBJECTIVE

Renew and relocate the data center consisting of about 1,000 physical servers used for securities trading.

Realize the highest degree of “secure and safe,” “low cost,” and “flexible and agile” next-generation system to support the company’s transformation into a digital financial enterprise.

APPROACH

Fully redefined the system infrastructure architecture and applied tiered system requirements to best meet “disaster recovery,” “disaster control,” and “performance assurance” objectives.

Allocated the most appropriate technology to each system tier and maximized cost performance.

IT MATTERS

- Advisory Services provided support in tiering the system requirements and mapping them per operation/application.
- HPE compute and storage portfolio enables services to be delivered in the “right mix.”
- HPE GreenLake enabled a monthly and pay-as-you-go model for the use of infrastructure.
- Realized service provisioning that links public cloud (AWS/Azure) and on-premises system infrastructure.

BUSINESS MATTERS

- Realized next-generation system to deliver a broad range of services as a digital financial enterprise.
- Reduced the number of servers from over a thousand to a few hundred with the expectation of reducing the total cost of infrastructure by 11% in 5 years.
- Secured hardware buffer resources in advance to enable immediate provisioning as needed.
- Initiated system environment setup automation utilizing APIs and AI-driven infrastructure operations automation.



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au Kabucom Securities Co., Ltd., a Japanese online securities company part of the Mitsubishi UFJ Financial Group (MUFG) is realizing their 2020 vision “Kabucom 2.0,” building upon a transformational idea: “Evolving from an online securities firm to a digital financial securities firm.” Of all the project components, the most significant was to completely revamp au Kabucom Securities’ system infrastructure supporting their core business of dealing in securities. HPE Pointnext Services led the design and architecture of this environment comprising about 1,000 physical servers. au Kabucom Securities is deploying the latest HPE infrastructure offerings in a “pay-as-you-go” business model. The company, which became “au Kabucom Securities” in the winter of 2019, is accelerating growth as the digital financial company of the MUFGxKDDI group.

CHALLENGE

MUFGxKDDI group’s revolutionary transformation to a digital financial enterprise

In December 2019 a new online securities company, au Kabucom Securities, was launched by joining the robust Mitsubishi UFJ Financial Group (MUFG) with KDDI’s economic base to deliver unique leading-edge services.

Kiyoshi Miyamoto, General Manager, System Engineering Department at au Kabucom Securities explained: “au Kabucom Securities has transformed to become the ‘MUFG and KDDI groups’ digital financial enterprise.’ This means KDDI’s strategy of seeking to strengthen online financial services is fully aligned with MUFG’s strategy of accelerating growth in the fintech area.”

In 2018, au Kabucom Securities defined its vision for 2020 as “Kabucom 2.0.” Their stated goal was to become the #1 player in all aspects of the business including product and service innovation, a diverse revenue model, and management efficiency to evolve from an online securities firm to a digital securities firm.

“We are leading the digital transformation strategy set out by MUFG and KDDI, and seek to become second-to-none in product and service innovation. We are promoting the development of services utilizing advanced technologies such as AI and blockchain, while taking a stand on ‘pursuing risk management’ concept as described in our management philosophy,” Miyamoto says.

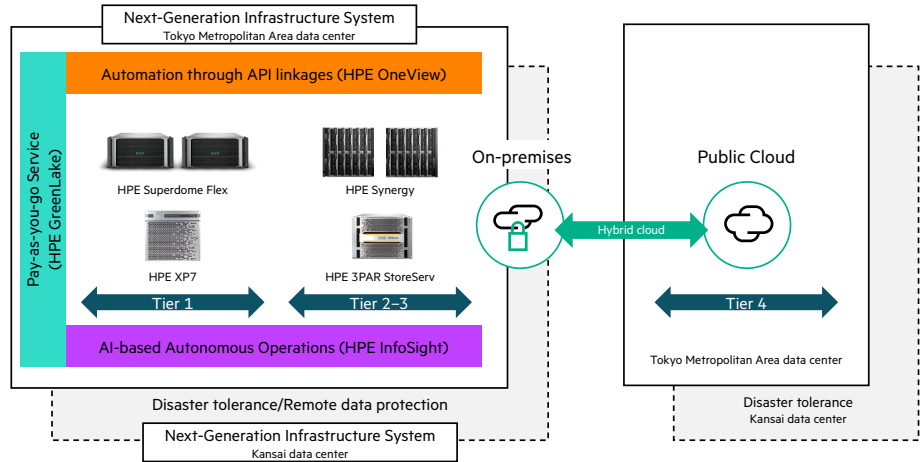
Establishing an API economy and further strengthening cross-industrial collaboration are the keys for au Kabucom to achieve a diverse revenue model. Miyamoto describes this as “a challenge to B2B2C platform business that provides the system infrastructure as service.”

“We have begun offering ‘RAIDEN’, an ultrafast ordering infrastructure system to Mitsubishi UFJ Morgan Stanley Securities, a member of MUFG. We are also expanding the au Kabucom API so that when regional banks and companies from different industries enter the securities business, they can have a smooth and easy access to our securities core system.”

The company is also preparing to provide KDDI’s vast customer base with an innovative “Smartphone First” service. Additionally, the company plans to improve management efficiency by proactively utilizing digital innovation.

“au Kabucom Securities is approaching a significant turning point in its twentieth anniversary, almost like a second launch. Business scale, service quality, and management governance must evolve into a whole new dimension. In early 2018 we decided to relocate our data center and completely revamp the system infrastructure, building a ‘Next-Generation Infrastructure System’ to support the next 20 years.” (Miyamoto)





SOLUTION

Optimize 1,000 physical servers with the “right mix” approach

The decision to build a next-generation system as part of the Kabucom 2.0 vision aligned perfectly to the company becoming part of the MUFGxKDDI group. The goal was to achieve an infrastructure that would allow the company to accelerate new business growth.

Miyamoto recalls, “Prior to revamping the system infrastructure, we reviewed the data center operations across the east and west of the country. We aimed to strengthen our security and disaster prevention measures by leveraging the latest data center facilities, and realize more robust business continuity. The goal was to build a ‘Next-Generation Infrastructure System’ from the ground up at the new data center in Tokyo’s metropolitan area.”

Miyamoto and others defined three requirements during the next-gen system design process: 1) Secure and safe, 2) Low cost and 3) Flexible and agile. “The challenge is how to balance system reliability and speed, mission-critical demands, and business agility while keeping costs down” (Miyamoto). Advisory Services provided a clear answer to this challenge.

“HPE Pointnext’s proposal of placing the right infrastructure in the right place based on operational needs was the most rational approach. In particular, the approach to categorize the systems by tier from the perspective of ‘disaster recovery’, ‘disaster control’, and ‘performance assurance’ based

on the assessment was extremely effective for our vision to take form,” says Miyamoto.

The Advisory Services team analyzed the business requirements in detail and divided the infrastructure requirements into 4 tiers and 7 phases.

“We applied the Tier 1 configuration to mission-critical systems, Tier 2 configuration to technology incorporating embedded automation and systems that emphasize business agility, and Tier 3 configuration to general purpose compute. The ‘right mix’ approach that HPE advocates enabled us to achieve an optimized cost performance while aggressively seeking to simplify the whole infrastructure.” (Miyamoto)

The public Cloud Service was positioned as Tier 4. The full portfolio of HPE infrastructure provided au Kabucom Securities “Next-Generation Infrastructure System” with the right mix.

Automated Provisioning and Autonomous Infrastructure Operations

HPE Superdome Flex, a high-end server that can scale as a single system from 4 to 32 sockets and from 768 GB to 48 TB of shared memory was selected for the Tier 1 mission-critical system. This server is a single system with extreme availability and achieves much higher reliability and fault-tolerance than other standard x86 servers. The memory/processor error recovery features, memory fault-tolerant function, and PCIe error recovery capabilities are unique to HPE Superdome Flex and enable the hardware, software, firmware, and operating system to work effectively in tandem.



au Kabucom Securities develops Next-Generation System to support their transformation to a digital financial enterprise.



“On HPE Superdome Flex, we are deploying our most critical applications, the ordering infrastructure system RAIDEN and the Core Banking system. This setup highly exceeds our availability and fault-tolerance requirements and also has achieved up to 1.8 times as much speed compared to the past system, under the most heavily loaded database environment,” says Yosuke Takeuchi, Infrastructure Group, Jr. Specialist.

HPE Superdome Flex combined with the high-end storage HPE XP7 creates a system that delivers the highest levels of availability and fault-tolerance at the hardware level. “We were able to create a rock-solid environment where one can work with a mission-critical application in a secure and safe manner by fully utilizing an Active-Active cluster, storage QoS function, and data protection capabilities.” (Takeuchi)

As for Tier 2, Ko Shingai, Infrastructure Group, Jr. Specialist explains:

“Provisioning automation and autonomous infrastructure operations are the key in Tier 2. We aim to maximize business agility in an on-premises environment. To achieve this objective, we chose HPE Synergy and HPE 3PAR StoreServ storage with advanced AI-based predictive fault detection.”

Shingai started to tackle the challenge of automating the process from configuring hardware to setting up virtual machines by using Ansible. He noted that HPE Synergy’s composability facilitates the implementation of the integrated hardware/software code control by using the Ansible playbook.

“We also have high expectations for HPE InfoSight, a predictive analytics technology that can be used together with HPE 3PAR. HPE InfoSight helps predict infrastructure faults with high accuracy and respond to problems before they become apparent. I believe this will be a big first step toward realizing autonomous infrastructure operations.” (Shingai)

The power of HPE InfoSight has been proven with the operational result of HPE 3PAR StoreServ reaching 99.9999% availability. HPE InfoSight has been supported on HPE 3PAR StoreServ since late 2017 and many companies have realized value from implementing it. HPE InfoSight support has been extended to HPE Synergy and HPE ProLiant Gen10 Servers.

BENEFIT

Optimize costs by consuming the next-generation infrastructure system in a monthly or pay-as-you-go model

au Kabucom Securities implemented the next-generation infrastructure system using a “monthly or pay-as-you-go” model. This was made possible with HPE GreenLake, a service where HPE owns the hardware and software assets, and users can install and use them at their own data centers, applying their own security policies. There is also a “buffer capacity” option that allows users to prepare server or storage resources in advance, and start using them when needed.



Case study

au Kabucom Securities Co., Ltd.

Industry

Financial services

Solution summary

Hardware

- HPE Superdome Flex
- HPE Synergy
- HPE XP7
- HPE 3PAR StoreServ

HPE Pointnext Services

- Advisory Services
- HPE GreenLake
- HPE InfoSight

“We applied the greatest possible technology available to date to the Next-Generation Infrastructure System. I’m confident that this will further accelerate our business newly formed as ‘au Kabucom Securities’.”

– Kiyoshi Miyamoto, General Manager, System Engineering Department, au Kabucom Securities Co., Ltd.

“As with the public cloud, users can now pay only for what they use, despite the environment being on-premises. The ‘buffer capacity’ option has greatly contributed to reducing costs. It is significantly advantageous that you can use these resources when needed, while lowering the up-front investment in infrastructure. We expect the infrastructure costs to be 11% lower in 5 years,” says Miyamoto.

The benefits of HPE GreenLake also extend to business agility. Shingai assesses: “As the procurement lead time for infrastructure equipment has become zero, we can meet unexpected resource demands immediately. We gained flexibility and agility equal to the public cloud, along with provisioning automation.”

au Kabucom Securities has succeeded as an online securities firm for the last 20 years under fierce competition. With the transformation into the new “MUFGxKDDI Group’s Digital Financial Enterprise” the competition will become even more diverse.

Miyamoto concludes with the following remarks:

“We applied the greatest possible technology available to date to the Next-Generation Infrastructure System to deliver products and services that give us a competitive edge securely and safely,

and that enable us to capture a range of new customers flexibly and swiftly. I’m confident that this will further accelerate our newly formed ‘au Kabucom Securities’ business. We expect continued support from Hewlett Packard Enterprise Japan with a full portfolio ranging from infrastructure offerings to services.”

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HPE Superdome Flex

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HPE Synergy

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