Seven Bank replaces its VDI with PCs powered by the Intel vPro® platform

Achieving a high-performance desktop environment, robust security, and outstanding manageability

Seven Bank, Ltd.

Head office: 1-6-1, Marunouchi, Chiyoda-ku, Tokyo, 100-0005, Japan

Established: April 10, 2001

Capital: 30,724 million yen

Number of employees: 470 (As of March 31, 2021)

Business content: ATM platform business, Settlement and account business, Overseas business

https://www.sevenbank.co.jp/

Celebrating the 20th anniversary since its launching in April 2001, Seven Bank, Ltd. has operations in three major segments: the ATM platform business, the settlement and account business, and overseas transaction services. With the ATM platform business at its core, Seven Bank has been gradually replacing over 25,000 ATMs across Japan with cutting-edge 4th-gen ATMs featuring facial recognition technology since September 2019. So far, ATM replacement in the Tokyo region has completed. In October 2020, Seven Bank transitioned the 1,200 client devices to laptops powered by the Intel vPro® platform ahead of its VDI service contract ending, seeking solid security, premium performance, and manageability.

Two factors spur a move from VDI to fat clients

The 4th-gen ATMs that Seven Bank is currently installing shape the multifunctional platform to deliver the bank's "ATM+" vision. These machines go beyond the simple cash transactions of traditional ATMs, boasting features such as non-contact IC reading, identity document verification, QR code* support, and Bluetooth communication. They feature a universal design prioritizing ease of use, better privacy, and advanced easy-to-read dual displays.

Until recently, the company used a VDI-based environment with over 1,000 client devices. Takako Aoki, Assistant Officer Digital Banking Division IT Platform Office Financial Crime Risk Strategy Planning and Prevention Division, explains the reasons for the change below.

"We have two major benefits in using a VDI environment: ease of ensuring security and simple administration. In terms of security, no data is left on user devices, which eliminates the risk of leaking. For manageability, all OS updates and application patches can be handled collectively on the server side. However, we found various issues while using the VDI environment."

The major problems were the time and effort required to add servers and the stress of increasingly frequent online meetings during the COVID-19 pandemic.

intel® vPRO®
PLATFORM

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* QR code is a registered trademark of Denso Wave Incorporated.

"It's relatively easy to add another client PC for an additional staff member in a VDI environment, but when adding a number of units at once, like when hiring an influx of new graduates, we need to add servers. Dealing with this was a lot of work," says Aoki.

Online meetings have become the norm under the current coronavirus situation, with the meetings involving not only conversations, but discussions based on materials and videos shared on screen.

"Our online meetings on VDI were often plagued by audio delays and screen freezes. We felt that our future client environment would require high-performance devices for our employees," says Aoki.

To gain the necessary level of performance, Seven Bank decided to replace all devices in its client environment with fat-client laptops when its existing VDI service contract expired. Aoki launched the new project alongside Kenji Ishihara, Deputy General Managaer Digital Banking Division and Financial Crime Risk Strategy Planning and Prevention Division, and Kengo Tsutsumi, Associate Digital Banking Division IT Platform Office.

— **Kenji Ishihara**
Deputy General Managaer
Digital Banking Division and
Financial Crime Risk Strategy Planning and Prevention Division
Seven Bank, Ltd.

— **Takako Aoki**
Assistant Officer
Digital Banking Division
IT Platform Office
Financial Crime Risk Strategy Planning and Prevention Division
Seven Bank, Ltd.

Requirements for solid security, premium performance, and outstanding manageability

Seven Bank had three core requirements when installing 1,200 new laptops: security that matches or exceeds the VDI environment, faster processing speeds for client PCs, and easier administration.

Dell Latitude laptops featuring the Intel vPro® platform fulfill all these requirements.

Aoki recognized the benefits of using the Intel vPro® platform even before starting this migration project and had considered setting Intel vPro® platform devices as the default choice for new laptops.

The reason is that the Intel vPro® platform strengthens security at the hardware level with Intel® Hardware Shield to prevent malicious attacks from the outside.

In addition, Seven Bank's employees enjoy the exceptional performance of products from Dell Technologies. Inc with 10th-gen Intel® Core ™ i5 processors—the latest processor series at the time—and 16GB of memory.

— **Kengo Tsutsumi**
   Associate
   Digital Banking Division
   IT Platform Office
   Seven Bank, Ltd.

Intel® Active Management Technology (Intel® AMT) functions provided by the Intel vPro® platform enable efficient patching on OS and applications for easier administration.

"Because we were using a VDI environment, we hadn't needed to perform any resource allocation like security updates over the past five years," explains Aoki. "This means that minimizing administrative workloads in the new client environment was a key requirement in our decision to move to laptops. Intel® AMT answered the big challenge."

Using Intel® AMT + Intel® EMA to cut system administrators' workloads

In addition to enabling administrators to remotely power on or off local PCs as well as those outside of their network segment, the KVM functions of Intel® AMT allow remote operations and troubleshooting, even for PCs with boot problems.

"Intel® AMT slashes the workload of admins applying security updates on OS and applications. And because we can boot PCs whenever necessary, our staff members can turn off their devices at the end of the day, which saves power. Providing

admins with the ability to centrally control power also means that end users needn't stop work to apply update programs. In that sense, Intel® AMT is great for both admins and end users," says Aoki.

According to Aoki, after Seven Bank decided the PC model for the project, Intel demonstrated another evolution of the Intel vPro® platform—Intel® Endpoint Management Assistant (Intel® EMA), which streamlines manageability even further.

Intel released this free web application in November 2019, enabling administrators to centrally manage multiple PCs running Intel® AMT and perform remote operations such as provisioning Intel® AMT, changing the settings, and powering PCs on and off.

"Initially, we were just looking forward to using Intel® AMT, but adding Intel® EMA dramatically improved our manageability to handle our 1,200 laptops. It was great timing," says Aoki.

However, Intel® EMA requires a separate server running Microsoft Internet Information Services (IIS) and Microsoft SQL Server, so Seven Bank partnered with Panasonic Solution Technologies and NEC Capital Solutions to establish the necessary environment.

— **Yuji Ushikoshi**
   Section Manager
   Account SE Section 1, Solutions SE Department
   Panasonic Solution Technologies Co., Ltd.

Completing deployment in just six weeks with seamless cooperation between partners

NEC Capital Solutions supported Seven Bank in deploying Intel® EMA while Panasonic Solution Technologies built the infrastructure.

First, NEC Capital Solutions provided support for activating Intel® AMT on the new PCs as well as various configuration and Wi-Fi connectivity work required for Intel® EMA, which serves as a management console. Seven Bank also adopted PIT-PowerController for EMA, a solution allowing PCs to power on and off based on a configured schedule.

"We reached out to Panasonic Solution Technologies to build an infrastructure for Intel® EMA, and they followed our requests to the letter. With NEC Capital Solutions supporting the web application aspect of the project and Panasonic Solution Technologies handling the infrastructure part, the two companies cooperated seamlessly to complete the deployment in just six weeks. We're extremely grateful to both companies," says Aoki.

This Intel vPro® platform-based PC deployment project started in September 2020 and finished in mid-October. Seven Bank's employees are extremely impressed with the blazing speeds of their new devices.

According to Tsutsumi, who also manages the in-house help desk, Intel® EMA is also quite helpful in terms of following up internal users.

"Our team can troubleshoot inquiries from end users while viewing their screens through the remote desktop function of Intel® EMA. This cuts waiting times for other users because we can provide quicker support," explains Tsutsumi.

In addition to leading the infrastructure build, Panasonic Solution Technologies is also handling post-deployment user support for the laptops. Two of its managers, Yuji Ushikoshi

— **Shinichi Kubota**
Section Manager
Cloud Solution Section, SI Department
Panasonic Solution Technologies Co., Ltd.

and Shinichi Kubota, are finding Intel® EMA extremely useful.

"When Seven Bank began using the new laptops, some end users failed to enter the initial boot password during kitting work," says Ushikoshi. "Even in those cases, we were still able to provide remote support from Intel® EMA with the remote KVM functions, which we can use regardless of the operating state of the OS. I was amazed at the convenience."

Seven Bank has completed several Windows 10 quality updates so far and more feature updates are expected. The company also predicts the working from home (WFH) situation necessitated by COVID-19 to extend.

"Our current desktop environment is limited to our intranet, but we expect more people will work from home in the future. In this course of events, we'll need to further enhance the security and convenience of end-user PCs. We're working closely with Intel, Panasonic Solution Technologies, and NEC Capital Solutions to solve the challenges ahead," says Aoki.

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