

CUSTOMER SUCCESS STORY | TOKYU LIVABLE, INC.

# VDI-BASED SOLUTION PAVES THE WAY FOR WORK STYLE REFORM IN JAPAN

DaaS with NVIDIA GRID smooths company-wide  
migration to Windows 10



Image Courtesy of Tokyu-Livable



# DAAS WITH NVIDIA GRID ENABLES WORKERS TO SEAMLESSLY ACCESS THEIR DESKTOPS FROM THIN CLIENTS—ANYTIME AND ANYWHERE



## OVERVIEW

- > Major real estate agency, TOKYU LIVABLE, deployed virtual desktop infrastructure (VDI) in 2015, targeting its 190 business bases. The company's primary aim is to accelerate work style reform by introducing a virtual desktop environment for employees so that they can access their desktop anytime and anywhere. TOKYU LIVABLE selected a Desktop as a Service (DaaS) solution provided by Hitachi Systems, with NVIDIA GRID® software, which significantly enhances graphics performance. NVIDIA GRID continues to provide stress-free operation for workers even after the entire environment migrated to graphics-heavy Windows 10.

## INTRODUCTION

TOKYU LIVABLE has been a real estate pioneer in Japan since 1972. As a leader in the industry for decades, they've come to realize the value of providing unique services to customers, like LIVABLE's Safe Real Estate Agency Guarantee. They also serve clients through their rental brokerage, real estate solution, and real estate sales businesses.

Though preparation for the 2020 Tokyo Olympics and Paralympics have been beneficial to their economy, the real estate industry in Japan is facing a labor shortage. To help alleviate this issue, TOKYU LIVABLE embarked on a mission to provide employees with the technology to work from anywhere, at any time. To accomplish this, they introduced virtual desktop infrastructure (VDI), company-wide.

## CHALLENGE STATEMENT

Yuichi Munakata, TOKYU LIVABLE Personnel Section Head and Work-Style Reform manager, needed a way to secure talented employees as they further expanded the business. The company has proactively sought cutting-edge work-style innovation since 2010. They experimented with introducing iPads into their real estate business division as part of their customer service enhancement project. In 2012, they also began to distribute iPads to sales staff members in charge of real estate procurement and sales.

## CUSTOMER PROFILE



**Organization**  
TOKYU LIVABLE,  
INC.

**Industry**  
Real Estate

**Location**  
Tokyo, Japan

**Founded**  
March 10,  
1972

**Capital**  
1.3963 billion  
yen

**Website**  
[www.livable.co.jp/corp/en/](http://www.livable.co.jp/corp/en/)



## SOLUTIONS

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**Virtual desktop infrastructure:**  
Hitachi Systems Desktop as a Service (DaaS)

## SOFTWARE

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**Hypervisor:** VMware Horizon

**Graphics Acceleration:**  
NVIDIA GRID vPC

## HARDWARE

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**Server:**  
Supermicro SYS-2029U-TR4

**GPU:** NVIDIA Tesla M10

## KEY APPLICATIONS

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- > SAP
- > Salesforce
- > G Suite
- > BI tools
- > Google Maps
- > Proprietary enterprise applications.

“We found that providing new value for our customers and employees gave us a competitive edge,” explained Seiichi Shimamura, IT Development Manager.

However, to keep pace with fierce competition, Shimamura knew that he’d also need to embrace workplace mobility in order to enhance productivity and sustain employee satisfaction. He began by examining two solutions: a VPN-based environment that enabled employees to access the business online from their secure PCs with HDD encryption and through the introduction of VDI.

“We knew that it would be difficult and unsafe to update physical PCs across all 190 bases, so we decided to introduce VDI,” said Shimamura. VDI eliminated the need to store data on client devices, helping us reduce the risk of data leakage, even in the event of theft or loss of a device.

## SOLUTION STATEMENT

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After receiving VDI environment proposals from several IT vendors, TOKYU LIVABLE selected Hitachi Systems to build their solution. They proposed a DaaS-based VDI, with the VDI environment as a cloud service, using VMware Horizon virtualization servers in one of its data centers. When compared to the on-premise operation, this platform promised a significant advantage over outsourcing server operation and maintenance.

Hitachi Systems also proposed to incorporate NVIDIA GRID software in the VDI environment. NVIDIA GRID technology virtualizes the GPU, making it possible to assign necessary graphics resources to each virtual desktop by virtually integrating all of the physical GPUs installed on servers. When a



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**“Amid an ever-changing business management environment, companies need to evolve in order to provide their customers with new business value. Throughout the past few years, we have considered the need to enhance work mobility. To achieve this, we decided to introduce VDI. With a perspective of the company-wide migration to Windows 10 in the future, we selected Desktop as a Service (DaaS) with NVIDIA GRID.”**

Seiichi Shimamura  
IT Promotion Manager,  
Business Management  
Division of TOKYU  
LIVABLE

user tries to use a graphics-related application, NVIDIA GRID provides the needed graphics acceleration from the physical GPUs installed on servers.

In a VDI environment without GPUs, graphics processing is handled by the CPU. This can burden the server’s CPU, depriving users of sufficient virtual desktop operation. This can also prevent an application that requires high-performance graphics processing from obtaining the necessary power. Many companies use NVIDIA virtual GPU technology, such as NVIDIA Quadro Virtual Data Center Workstation (Quadro vDWS) software, for their engineering applications, such as 3D CAD. Now, with the increasing graphics demands of Windows 10, a GPU is required to realize the operating system’s full potential.

Windows 10 VDI without GPU acceleration can cause issues such as dropped frames. Users could opt to turn off features that require graphics acceleration in Windows 7 and 8.1, but they cannot turn off all the related functions in Windows 10.

Additionally, in many cases, a VDI environment without GPUs provides inadequate performance for browser rendering, video playback, and complicated animation processes used by PowerPoint. TOKYU LIVABLE took all of this into consideration and selected an environment that incorporates NVIDIA virtual GPU (vGPU) technology as the company migrates to Windows 10.

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#### **RESULTS STATEMENT**

VDI dramatically reduced the maintenance load for all of TOKYU LIVABLE’s business segments. Previously, replacing a PC in the event of sudden HDD failure or other problem, was very time-consuming. But the VDI environment eliminated this installation work. Each individual user can now immediately access their own virtual desktop from their PC, smartphone, or tablet with the VMware Horizon client installed at every base location.

Considering various factors, including lost productivity due to PC failures, wasted time related to recovery done by the IT Development Department, and a lower cost for the introduction of new devices, Shimamura anticipates that this new VDI system will significantly reduce their total cost of ownership (TCO).

VDI is unaffected by the status of each individual client PC, which smooths operations for enterprise applications, BI tools, and Google Maps, boosting the value of NVIDIA GRID. While they initially deployed NVIDIA GRID only for certain workers, like designers who required advanced graphics performance, the company is now expanding this function company-wide.

“We have been able to set a great foundation for on-site employees to enhance their job satisfaction. So, we wanted to formulate and implement specific measures to strengthen competitiveness and to achieve sustainable business growth on this foundation,” said Munakata, the company’s Work Style Reform lead.

TOKYU LIVABLE’s efforts have paid off, based on rankings by the Great Place to Work Institute of Japan. Every year, they evaluate companies that exceed certain international workplace-related criteria. And, TOKYU LIVABLE ranked number 22 in the major company section (more than 1000 employees) for 2019.

For more details about NVIDIA GRID, visit: [www.nvidia.com/grid](http://www.nvidia.com/grid)

[www.nvidia.com](http://www.nvidia.com)



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