Remote PC Array Case Study

Tokyo Tama City Hall

Remote PC Array
HYPER CONVERGED SOLUTIONS

Realizing teleworking environment while minimizing implementation and maintenance/operation costs with no significant changes to staff work environment

Aiming to create a new work environment for combating the covid pandemic and reforming work styles

Located in the southern part of the Tama region of Tokyo, Tama City is rich in nature surrounded by the Tama River and Tama Hills, and has flourished as the core city of Tama New Town, the largest residential development in Japan.

Since several years ago, Tama City Hall has been considering and researching the introduction of teleworking into their staff work environment as part of their efforts to reform work styles. Against this backdrop, the covid pandemic grew increasingly grave, and in response to this, the City Hall embarked on the development of a new work environment compatible with teleworking from around July 2020, with the goal of promoting measures against covid and reforming work styles.

In preparing for the teleworking environment, the Tama City Hall considered adopting thin client terminals that do not leave data in the mainframe as a means of preventing data breach in the event data got lost, etc. Mr. Ryuichi Yabe, Chief of the Information Policy Section, Planning Policy Department, Tama City Hall, talks about the requirements of terminals for teleworking as follows.

"For staff to be able to work comfortably, we decided that the terminals should have the same specifications as the FAT terminals that we had been using until then. We also thought that an environment running on a client OS rather than a server OS would serve us better for starting the teleworking environment as early as possible.

Adopting a proposal that leverages "Remote PC Array" capable of minimizing the burden of system environment changes on staff while keeping costs low

Tama City Hall invited partner companies to propose teleworking solutions based on the requirements for teleworking. They then compared and discussed the proposals presented to them, from various angles.

"In adopting the telework solution, we compared and studied various options, including building a virtual desktop on-premise using the Virtual Desktop Infrastructure (VDI) method, a desktop virtualization service (DaaS: Desktop as a Service) provided by a telecommunications carrier, and migrating to the new Municipal Information System Resilience Improvement Model proposed by the Ministry of Internal Affairs and Communications (a solution that adopts Microsoft 365)." (Yabe) One of the proposals recommended teleworking solution making use of "Remote PC Array."

"Remote PC Array" provides all-in-one CPU, memory, storage, network switches, management software, etc., necessary for the virtual desktop infrastructure, allowing installation with little or no change to the existing business environment. It also allows use of Windows 10 Pro as the terminal OS.

Tokyo Tama City
Ryuichi Yabe (left)
Naoko Mori (right)

Profile of municipality

Name of municipality:
Tama City, Tokyo

Location of office:
6-12-1, Sekido, Tama City, Tokyo

Population:
148,146 (present as of August 1, 2021)

Tama City is located in the southern part of the Tama region, approximately 30 to 35 km from central Tokyo. Surrounded by the Tama River and Tama Hills, the city has an undulating topography and has evolved as the core city of Tama New Town, the largest residential development in Japan. The city is well connected by private railways, the Odakyu and Keio lines, and the Tama City Monorail, a third sector railway. The area south of Tama Center Station is rich in nature, and as the center of Tama New Town, it boasts numerous mega commercial facilities and leisure facilities, and is home to residents of all ages.
https://www.city.tama.lg.jp/

Tokyo Tama City
Chief, Information Policy
Section, Planning and
Policy Department

Ryuichi Yabe

"Major factors that contributed to choosing this system included the fact that it was easier to implement than other systems, and that it was possible to use the telework terminals with the same operational feel as the existing FAT terminals, thus reducing the burden imposed on staff due to changes in the system environment." (Yabe)

Moreover, the possibility of introducing the system at a low cost was another reason why "Remote PC Array" was chosen. Ms. Naoko Mori of the Information Policy Division, Planning and Policy Department, Tama City Hall, says the following.

"Cost has been a major issue for us in implementing a teleworking environment. Because "Remote PC Array" does not require a hypervisor, costs can be reduced compared to the cost of installing a typical VDI. In addition, fewer components running meant lower maintenance and operation costs. Being able to reduce the cost of such installation and maintenance operations has proved to be a huge advantage. We also appreciated the fact that we didn't have to make any major changes to existing connections." Mr. Jun Igarashi of Sales Department 1, Sales Division 2, Axio Corporation, who proposed this system, explains the key points.

In the case of municipalities, the issue of separating networks is a key point. VDI is inevitably costly and burdensome to maintain and manage. In this respect, Remote PC Array meets needs in terms of cost and operational load, which we believe is why it was well received."

As a result of these considerations, Tama City Hall decided to adopt a teleworking solution that utilizes "Remote PC Array."

Building a two-plan teleworking environment using 200 terminals, with the first objective being to familiarize staff with the teleworking environment

Tama City Hall created two plans with different usage environments and began building a teleworking environment with 100 terminals each.

"The first is "Plan 1," in which all terminals used for daily work by employees in managerial positions and above are shifted to teleworking terminals. The other is "Plan 2," in which employees in general positions below the rank of section chief are loaned teleworking terminals to take with them." (Yabe)

System implementation was divided into two phases: the terminals and the infrastructure (remote PC array), and the lines from the infrastructure to the terminals and their connection methods. The necessary equipment and tools were procured in November and December 2020. Next, in January 2021, construction of the teleworking environment began, and from around May of the same year, test operations were run also for the purpose of verifications. Finally, in July 2021, teleworking was launched in actual work.

Tokyo Tama City
Chief, Information Policy
Section, Planning and
Policy Department

Naoko Mori

Mr. Akiomi Ishikawa, from Group 2, ICT Technology Department, Technology Division, Axio Corporation, who was in charge of the installation says "We needed to set up 200 terminals in a short period of time, but the simple configuration of the Remote PC Array made that easy, allowing us to complete the project on time."

This is how Tama City Hall introduced its teleworking environment. However, since this is the first time the municipal was embarking on teleworking, the first objective of both plans was to familiarize their staff with this form of working style.

"In Plan 1, managers are often on the move in government buildings and have many opportunities to

use teleworking terminals away from their seats. In Plan 2, for example, although departments that focus on counter operations have few opportunities to use teleworking terminals in the office, opportunities to use these terminals from home, etc. are gradually being increased to enable staff to become accustomed to the teleworking environment. As these efforts progress, we are seeing more and more opportunities to use telework terminals for meetings, etc., and as a result, we are gradually going paperless." (Yabe)

The fact that our staff "didn't notice" the new changes in the environment is a significant achievement. We will continue to use the Remote PC Array to improve the workplace environment.
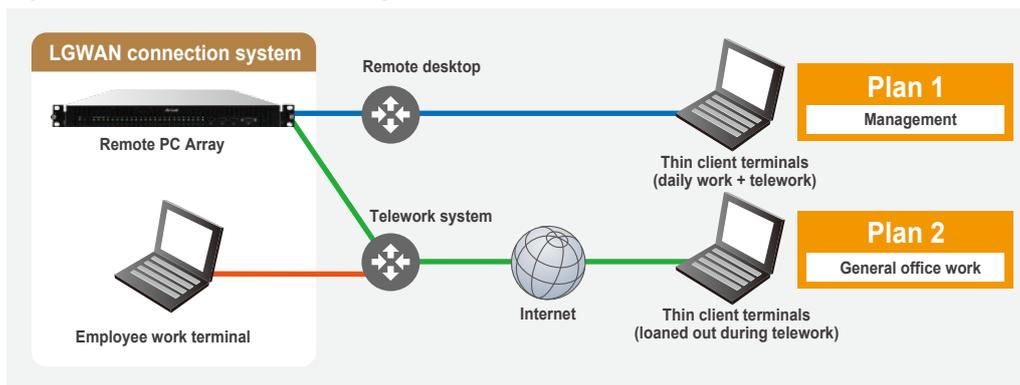
One of the goals of introducing teleworking for Tama City Hall was for staff to be able to shift to a teleworking environment without having to make changes to their current work. The key to achieving this goal was to create a network environment that can accommodate teleworking.

"Key points of the network environment are, for example, how to connect with existing systems and devices, whether it is possible to shift from wired to wireless without disrupting staff work, and whether staff can use terminals stress-free during teleworking. We resolved these issues one at a time as we proceeded with the implementation with our partners. One staff member said ''I didn't even notice'' that the environment had changed. This is a big accomplishment for us." (Mori)

Based on their newly introduced telework environment, Tama City Hall plans to further promote the use of thin clients for terminals based on the "Remote PC Array."

"One of the themes that we hope to achieve is to convert our My Number terminals to thin clients. To this end, we need to understand the requirements of teleworking and seize the introduction of teleworking as an opportunity to build a corporate culture in the organization that will encourage staff to take on the challenges of a new work environment. Moreover, work styles will change as teleworking progresses, so we hope to work on this through discussions with the human resources department and other related departments." (Yabe)

System conceptual diagram

AXIO Corporation
Igarashi

AXIO Corporation
Ishikawa