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Success Case Study

Remote PC Array Case Study

NetCare Service Co., Ltd

ascentech

Netcare Service Utilizes an Advanced VDI Solution for better Communication and Improved Productivity.

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Netcare Service Comprehensively Supports Network Design/ Construction/ Maintenance

NetCare Service Co. Ltd. (Netcare Service), with headquarters in Osaka, provides network design/ construction/ maintenance as a one-stop solution. Previously a department of an enterprise focusing primarily on software development, the company became an independent, separate entity in 1998. Netcare Service comprises of four main bases of operation including offices in Osaka, Tokyo, Yamagata and the Hagi Technical Center. Netcare Service also has members assigned to work onsite at their clients' companies.

Despite the physical distance between the branches, we've managed to overcome operational difficulties by taking advantage of various communication resources such as video conferencing and online Web meeting systems and BYOD environments using smartphones and PCs. Last year, in addition to the seamless style of working, Netcare Service installed a VDI solution using VMware Horizon in order to create a stable environment in which the operation could run more effectively.

Discussing New Solutions to Solve the Problems of a Conventional VDI Environment

VDI, using VMware Horizon, ensures a secure working environment, regardless of devices and locations. However, all members must share the resource pool, which leads to a high operational processing-load, a decrease in system performance, and a negative impact on other users' productivity. Now we have decided to discuss if there is another solution to handle these problems.

The point of discussion is whether or not an individual can be assigned sufficient resources without expending time and effort. In addition, it is necessary to take into consideration a cost-saving solution.

Netcare Service requires an effectively applicable solution for the mutual functions of information security and system engineering without expending as much workload as possible. Ascentech's "Remote PC Array" is a good candidate solution to fulfill these requirements.

Predominance of Remote PC Array

In the Remote PC Array (RPA), 20 physical PC cases are mounted in a 1U housing. It is a hyper-converged solution that provides all the necessary CPU, memory, storage (SSD), network switches and management software to get the work done. Designed on a physical PC allowing a remote connection, no hypervisor is required. This dramatically reduces the cost of the infrastructure as well as the design and construction period. Consequently, it significantly reduces the cost of the entire virtual desktop system and solves many of the challenges faced by a traditional virtual desktop infrastructure. Also, system expansion can easily be achieved using a 1U (20 x PC) Unit.

When Netcare Service uses Remote PC Array, besides low cost and easy maintenance, each user individually occupies the resource. Remote PC Array does not use hypervisor, so fees for the procurement and maintenance of virtualization software are not required. Through this saving, it is possible to reduce the cost per user by up to 50% compared with the cost of an ordinary VDI installation. This solution is known as a "Blade PC System", a method to independently divide a PC for users, without the need for a hypervisor. However, conventional products have limitations of anti-heating and miniaturization of HDDs, an inferior aggregation ratio compared to VDI and do not achieve sufficient cost saving. Nevertheless, with recent technological breakthroughs, reduced PC sizes and high-functional CPUs have been invented, and HDDs have been made smaller with larger capacities.

SSDs have been implemented. With the innovation of this technology, Ascentech have developed Remote PC Array with the cooperation of Atrust Company. Ascentech has previously dealt with thin client products from Atrust Company, and trust the miniaturization, power-saving technology and high quality of their thin client devices. Moreover, this thin client technology provides flexible responses for our company, for the purpose of improved development of both companies.

Remote PC Array uses cartridge-type PCs, allowing for easy maintenance, even in the event of hardware failure. The hot swap cartridge can easily be changed by removing the respective chassis without the need to stop the operation of other PCs. It is also possible to expand the capacity with the addition of a chassis unit, without the need for downtime. For Netcare Service, this solution is the most compatible for the Small Start application, whereby it is possible to enlarge necessary parts when required.

Easy and Low-cost Implementation of VDI Environment That Can Effectively Use Resources

Remote PC Array has been assessed to satisfy the needs of Netcare Service. Our company contacts with Ascentech deal with the product for reconciliation in more detail. There is no need for performance sizing for hypervisor either. Netcare Service is concerned with design and construction, but the detailed design and construction support services from Ascentech make us more assured. When one PC was immediately installed for trial and used in reality, positive evaluation for from co-workers was received.

Company Overview Profile

Solution Sales Division
General Manager Matsuoka Toshiaki (left)
Manager Naito Ryoji (middle)
Leader Yokoda Kenji (right)

netcare

Name	NetCare Service Co., Ltd
Established	September 1998
Address	5-13-16 Shimizu, Asahi-ku, Osaka-shi, Osaka

Business Content

Developing/selling, software services, and consultant of computer-based technologies.

1. Consulting/design/installation/application/ support of networks.
2. Processing/selling types of communication cables, mainly optical cables.
3. Developing/selling network devices.
4. Accessories of the above-mentioned.

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Users were most satisfied about the fact that each user can be allocated sufficient resources. "With Remote PC Array, each individual can occupy CPU, memory and HDD, etc. resources to remotely connect to multiple desktop environments stored inside the unit. Therefore, even when one user performs a high processing load, it does not impact on other users. In the case of a user's PC going down, it does not impact on other users (Matsuoka). Until now, as using shared resources increased, timing-based performance decreased, but with Remote PC Array it is not a problem any more. The point of appropriate usage, even at the time of concentrated access in the evening, is evaluated highly. Moreover, hypervisor, as used in conventional VDIs, is not required, so the licensing of virtualization software is not necessary either. This point of predominant installation cost is also evaluated highly. "With reduced design and construction time, and with the support services of Ascentech, we can use VDI very easily." (Matsuoka)

Based on High-Evaluation In-house Installation, Deployment towards Other companies in the Future

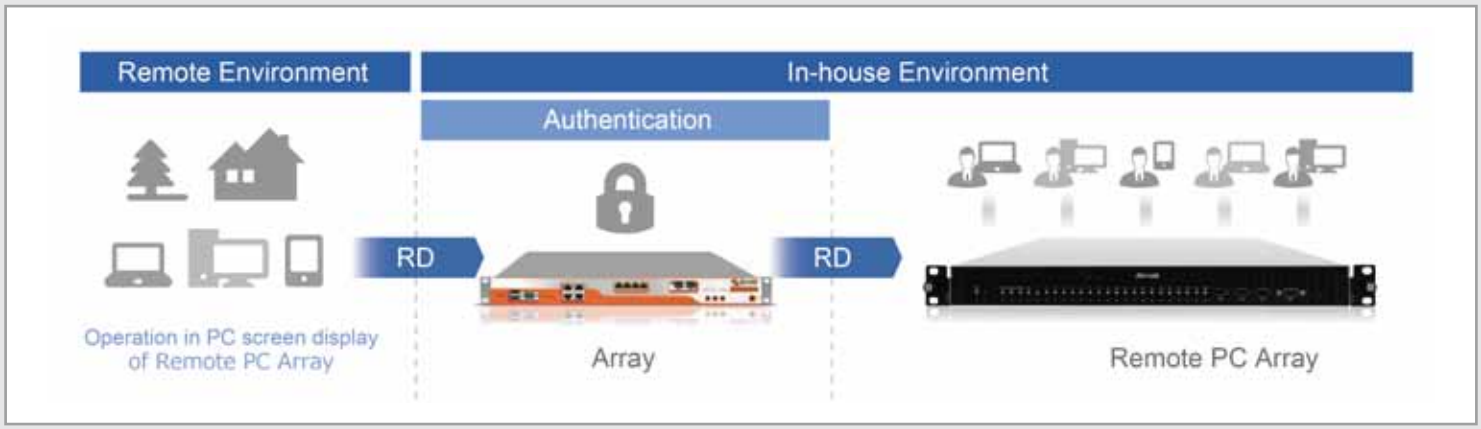
Until now, the cost, design and construction of VDIs are heavy burdens, so many companies still hesitate to make decisions on whether to upgrade. However, if Remote PC Array is added as a selection, it is possible to reduce the cost with Small Start. Besides, companies with VDI installed, can settle on a more robust system for their operation in times of emergency and for high-level, important tasks.

Thanks to the positive evaluation of the Remote PC Array installation, Netcare Service plans to sell this technology to other companies in the future. At that time, the company will handle, sell products and sets supplying load distribution functionality and SSL-VPN functionality, and possibly provide a more secured environment.

The company puts effort into strengthening IT infrastructure, but the analog part also needs taking care of. "We are creating a settled working environment from anywhere. Once a year, employees are gathered for a kick-off. It is also important to consider the balanced combination of not only video conference but also going to the sites, etc. We continue to apply advanced technologies, and the core of our business is to value the connection between people and people. Accordingly, we would like to innovate the working style in conjunction with improved productivity and better communication." (Matsuoka)

Remote PC array specification

Dimension (mm)	1U 43.8(H) × 430(W) × 736.6(D)
Weight	13.5kg (Including 20 Cartridges Fully Loaded, 2 Power Supplies Installed)
Power	2 x 350W Hot-swap
Power Consumption	Dual Core: max 264W / Quad Core: max 314W
Built-in components	PC cartridges x20, KVM switch x1, Ethernet switch x1, Atrust Console Management (ACM) ×1



About Atrust:

Established in 2007, Atrust is a creative, professional, and enthusiastic team which has rich experience in designing, producing thin client, server and management software. The objectives of Atrust are to provide customers with high quality, high efficiency and environmental friendly products as well as comprehensive solutions.

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