Today, the Gotemba City is using the system for its administrative services and the real-time broadcast of its parliamentary sessions. The city is planning to apply NEC’s thin client solution to its meeting rooms to take the advantage of mobility of the system, which enables users to use their own environment from any terminal. "Instead of bringing in a PC with data stored on it, meeting participants will be able to access their client environment to retrieve necessary information and take a look at it in the middle of a meeting," says Mr. Sakaue.

**Project members**

- NEC Corporation
- Administration Department, Expert of Administration Section, Mr. Fumiaki Osada
- Information Management Section, Senior Manager, Mr. Tsuyoshi Sakaue

**Customer Profile**

**Gotemba City, Shizuoka Prefecture, Japan**

Address: 483 Hagiwara, Gotemba, Sizuoka Prefecture, Japan

Population: 90,375 (May, 2009)

Overview: Gotemba City is located about 65 miles from Tokyo. It continues to grow as the metropolitan city. It is contributing to the development of businesses and as an Inflate infrastructure for e-government. According to Mr. Fumiaki Osada, Assistant CIO of Information Management Section, "We have set a policy for strict security measures. This policy includes access authority based on Active Directory, file management through common folders, and prohibiting the use of notebook PCs outside city hall."

While the city promoted its progressive approach, several challenges became obvious. One of the striking issues was increased maintenance costs. The city found that management costs and IT staff workloads were gradually increasing because a limited number of staff members had to maintain many PCs located both in city hall and branch offices. To resolve the situation, the city selected NEC’s desktop consolidation solution “VirtualPCCenter.” The city deployed 630 thin client terminals for mission-critical tasks which sustain administrative services. With this solution, the client environment of users can be efficiently delivered. The city also expects improvements in operational performance thanks to application compatibility, optimal resource allocation of CPU and memory, and the quick launch of applications.

**Concurrent deployment of 630 thin clients as a desktop consolidation solution. Consolidated management of the client environment in city hall and municipal branch offices.**

**Drastic reduction in maintenance costs**

Gotemba City has long promoted the introduction of IT by providing a PC environment for each staff member. But the city found that management costs and IT staff workloads were gradually increasing because a limited number of staff members had to maintain many PCs located both in city hall and branch offices. To resolve the situation, the city selected NEC’s desktop consolidation solution “VirtualPCCenter.”

**Increased workloads of IT staff with more developed and diversified systems**

**Overview of the customer and its progressive approach to IT**

Gotemba City, with the population of about 90,000, is located in the north-east area of Shizuoka Prefecture, Japan. Located at the foot of Mt. Fuji, the city is on a plateau which abounds with beautiful natural surroundings. Many tourists visit the city throughout the year. It continues to grow as a commercial and residential center for Tokyo and Yokohama as it is in the economic zone and workers can easily commute from the city.

Bearing well-known as an advanced IT municipality, the city had provided each staff member with a PC in order to develop an infrastructure for e-government. According to Mr. Fumiaki Osada, Assistant CIO of Information Management Section, "We have set a policy for strict security measures. This policy includes access authority based on Active Directory, file management through common folders, and prohibiting the use of notebook PCs outside city hall."

Simplifying maintenance and enhancing security were the goals...
The Gotemba City Government

Virtual desktop thin client systems enable consolidating management and enhance security

The city started to compare many possible systems. The IT staff discussed the installation of new systems from many aspects including evaluating systems from some vendors, attending seminars, and so forth. Among the vendors, NEC’s thin client system “VirtualPCCenter” received high marks during the evaluation process. Eventually the city narrowed the list of vendors down to few companies including NEC. In December 2008, it held a selective tendering. VirtualPCCenter, a virtual desktop thin client solution, was selected as the system which fulfilled the city’s requirements.

The features of “VirtualPCCenter” fulfill advanced requirements

VirtualPCCenter is a system which virtualizes each user’s unique PC environment on a server. It displays the output of the OS and application processes, which run on virtual machines, on the thin client terminals. About 50 virtual PC’s can be consolidated on one server. This enables more efficient updates and delivery of the OS, application software, and patches. Moreover, most of the applications are compatible with the system. So, existing applications on the city’s host computers can be used without any problem.

In the municipality, the budget to deploy and use IT devices is limited. Therefore, the city expects to use devices for a long time. The thin client terminals have a longer life expectancy than business PCs because they are diskless and fan-less. This is one of the great benefits of thin client terminals. Virtual PCs for office staff can be easily added by replicating master images which are prepared in advance. Delivery of OS patches and application installation are completed collectively. Data and applications are consolidated on servers. Therefore, there are no risks of data loss from retiring employees or PC disposal. In other words, from a life-cycle point of view, consolidated management is available from the initial installation through daily operation to final disposal. According to Mr. Tsuyoshi Sakaue, “The system enables a drastic reduction in on-site work hours by consolidating management of the client environment. Compared to the fat PC, we expect better cost performance for the municipality.”

Quickly deploying the thin client systems

Starting in February 2009, setting up was completed at the city hall in about a month. Following this, a total of 630 thin client terminals “US110” were installed across local branches and became fully operational in April. If these had all been standard desktop PCs, it would have taken tremendous time and effort to install the operating system and application software on every single PC.

“NEC’s VirtualPCCenter solution allows us to manage all remote terminals from a single server. The installation took much less time than I expected,” says Mr. Sakaue.” Mr. Osada adds, “NEC has excellent experience in deploying its thin client system for enterprises and local governments. That explains why NEC was able to install the system smoothly within a short period of time.”

Ensuring the continuity of public services

The picture of system design is the overview of the system installed for the city. A total of 630 US110 terminals were installed at 43 locations including the city hall, branch offices, kindergartens, child care centers, libraries, and school meal service facilities. The remote terminals are all managed as virtual PCs on virtual PC server NEC Express5800/120Rh-1 and have access to NEC Storage D3-10.

Consolidated management is enabled by NEC’s platform management software, SigmaSystemCenter. If a virtual PC server should fail, it automatically moves the failed virtual PCs to a standby server and enables continuous operation without rebooting. Mr. Osada says, “The city hall staff members are able to work on their terminals even in the event of a severe failure and continue to provide high quality administrative services.”

Dramatically reduced troubleshooting and improved operational performance through quick-launch

Reduce workload for terminals and other devices. Allow workers concentrate on their individual tasks

Replacing existing PCs with NEC’s thin client terminals was the right decision to reduce demanding management tasks. Since the new system started operations in April, no failures have been reported. “One of the major benefits of NEC’s solution is that we no longer have to travel to remote sites as we did for PC users. Now we can remotely install the OS and software updates on the central server in a machine room, and focus more on system management and maintenance tasks,” says Mr. Tsuchiya.