Veritas NetBackup Appliances provide data protection infrastructure for Kyushu's new "municipality cloud".
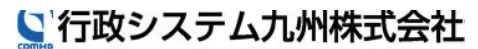
VERITAS™

OVERVIEW

Local Government IT Service Provider Needed More Reliable and Efficient Data Protection in Its Cloud-Based Hyperconverged Infrastructure

Gyosei System Kyushu K.K. provides solutions for local municipalities primarily in Kyushu's cities, towns and villages. Recently, it transferred Acrocity, its business solution specialized for municipal services, from an external Infrastructure-as-a-Service (IaaS) infrastructure to its own, newly built IaaS infrastructure, establishing an environment that can be utilized as a highly scalable "municipal cloud." To protect data in this municipal cloud and to create an environment that follows a business continuity plan (BCP), Gyosei System Kyushu adopted the Veritas NetBackup Appliance, establishing an environment that overcame previous challenges by improving backup precision and shortening the backup window.

ACCELERATING EFFORTS TO IMPROVE BACKUP ENVIRONMENT QUALITY

Gyosei System Kyushu K.K. was founded in 1971 as K.K. Fukuoka System Machines, and today, as a company within the corporate group, Gcom Holdings K.K., it offers a number of solutions including Acrocity, which is specialized for municipal services. It boasts of having the biggest market share in Kyushu: More than 50 municipalities, including cities and towns in all areas of Kyushu, are listed as their customers. Gyosei System Kyushu provides a wide range of business solutions tailored to municipalities to support a variety of services, such as resident information administration, taxation, welfare, health and nursing care, as well as the organizations' internal services, such as human resources and payroll.

As directed by the Ministry of Internal Affairs and Communications in 2010, many municipalities have been working to establish the type of environment for which Gyosei System Kyushu has been building municipal clouds, i.e., an environment in which multiple municipalities can share a core business system. This municipal cloud has gained attention as a mechanism with many benefits, including information-system-related cost reduction and BCP compatibility, as well as being compliant with regulatory changes.

KEY CHALLENGES
As it designed its own IaaS cloud for municipality services, Gyosei System Kyushu wanted to improve data protection reality and create a backup environment that would be more efficient and easier to use.

SOLUTION
Using a Veritas NetBackup™ Appliance within a Fujitsu hyperconverged infrastructure (HCI) solution, Gyosei System Kyushu established a highly scalable and efficient mechanism for backup and recovery of virtual machines (VMs) that enabled reliable business continuity.

BENEFITS
- Realized a highly reliable backup in a short time
- Reduced storage volumes due to high-precision deduplication
- Consolidated backup policies
- Better alignment of daily VM backups between the data administration unit and the business operations unit
- Improved data visibility and operational efficiency with web UI and Instant Access

"We had been providing business infrastructures such as Acrocity for many years toward the goal of realizing this municipal cloud, but until now, we were using an external IaaS infrastructure," says Mr. Shinichi Takenoshita, Chief of the Area Sales Support section of the Area Management department.

The municipal cloud project provided the impetus to update the existing IaaS infrastructure to establish a flexible, highly scalable, and cost-competitive infrastructure. The company decided to build its own IaaS environment utilizing HCI that is easy to scale out.

The challenge here was the quality of the backup environment that was in place to protect the data. Until then, Gyosei System Kyushu had used a backup service provided by a data center vendor, but daily backups on more than 250 VMs meant that sometimes jobs went unfinished. Some VMs experienced delays in their processing, resulting in a variety of issues, including jobs not being able to launch after the backup. "It's not so bad if we were dealing only with a failed job, but if it affects other processes, it may lead to a system failure the next day," says Mr. Takenoshita. "That's why we wanted a high-quality backup environment."

Mr. Shinichi Takenoshita

SOLD ON THE APPLIANCE'S UNPARALLELED QUALITY AND INSTANT ACCESS TO DATA CHECKS

As Mr. Takenoshita explored how to create an environment that enabled safe and reliable backups without delay, the NetBackup Appliance provided by Veritas Technologies caught his attention. "A backup environment provided by a dedicated appliance has no errors in design or build, allowing you to use it in an optimal environment," he says. "I believed that it allowed the operation to be more stable than an environment consisting of software running on a server."

With its extremely high backup performance in a virtual environment, NetBackup Appliance also excelled in its ability to reliably process backups on a daily basis compared to solutions offered by other manufacturers that were initially proposed. "We also reviewed actual comparison materials and came to appreciate the high performance and quality of NetBackup," Mr. Takenoshita says, adding emphatically that the daily synthetic full backup with the incremental data secures full recovery to the previous backup point even if there was a failure. This makes it a hugely attractive feature that enables a new full backup in a short time the next day, using the difference synthesis from the previous time.

NetBackup also gained high marks for its web UI and Instant Access features. These features make it easy to decide whether or not to restore data. Data restores can be easily performed from the browser, so the time for recovery can be significantly reduced. Instant Access also makes things easier. Even administrators on the business-operation side can use this function to identify which data on the virtual machines needs to be restored. This eliminates the need to restore everything to check what is necessary. Mr. Takenoshita expects that "we can significantly reduce the load on the administrator by granting authority to staff on site to restore data on a rolling basis if necessary."

The proven track record of NetBackup and its global market share also received high praise, resulting in the company selecting NetBackup Appliance to serve as the core data protection capability in the new municipal cloud infrastructure it was building.

NETBACKUP APPLIANCE CONTRIBUTES TO BACKUP QUALITY IMPROVEMENT, RESOLVES PROCESSING DELAYS

The transfer of five organizations to the newly built IaaS infrastructure is underway, with about 30 systems designated to run in a VMware environment on PRIMEFLEX, an HCI solution provided by Fujitsu. Data protection for these systems will be performed comprehensively by utilizing a policy set for VMware on the NetBackup Appliance. In addition, a separate NetBackup Appliance will be set up at another data center, where the plan is to perform replication using the Auto Image Replication (AIR) function. "We expect to be able to achieve the quality required of a municipal cloud, such as being able to implement BCP through replication," says Mr. Takenoshita.

In fact, by integrating data protection for the new IaaS infrastructure into NetBackup Appliance, it became easy to see the overall backup job status, enabling settings such as scheduling to be easily performed from the dashboard. Since the backup operation was also integrated, significant benefits can be expected in terms of compression and global deduplication. The incremental backup not only enables backups in a short time on a single VM, but the overall backup window can be shortened by a superior parallel computing technology, which is expected to resolve an initial issue of processing delay.

Gyosei System Kyushu also expects a reduction of the engineers' workload. "As practice, engineers typically perform detailed work to individually backup the present environment before implementing a data restores, in case of any mishaps," Mr. Takenoshita explains. "A function like [NetBackup] Instant Access eliminates the need for such work, reducing not only the resource and workload burdens, but the psychological burdens as well."

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> *Area Sales Support Section Chief,*
> *Area Management Department,*
> *Gyosei System Kyushu K. K.*

Backup Structure: Before

New Backup Structure with NetBackup Appliance
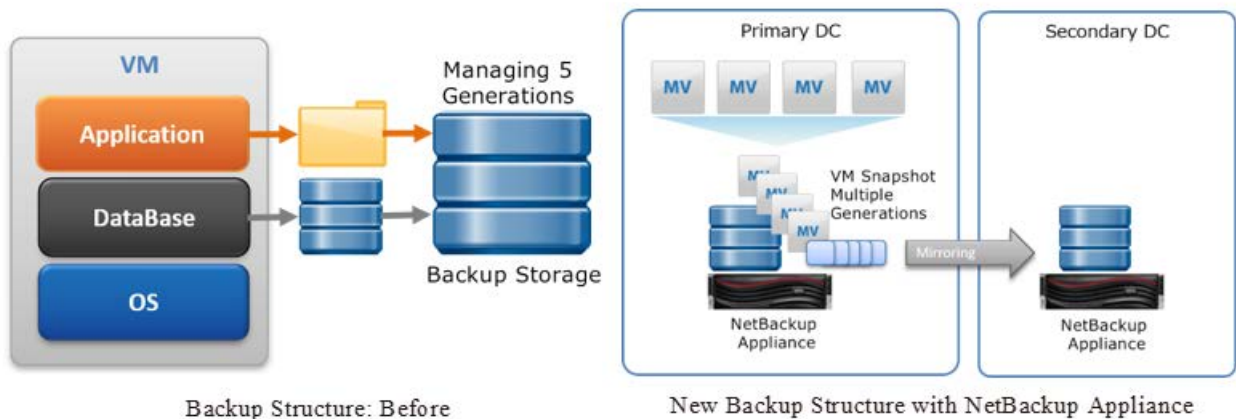
NETBACKUP EXPECTED TO BE KEYSTONE OF DATA PROTECTION FOR 50+ ORGANIZATIONS ON MUNICIPAL CLOUD

While the current plan is to transfer the five organizations the company serves to a new environment, transfers of the remaining 40+ organizations will also proceed. "As the number of organizations under contract increases, the server side will continue to scale out," says Mr. Takenoshita. "We would like to expand NetBackup Appliance as the keystone of the comprehensive backup environment that can keep up with that environment."

Other prospective developments under consideration include setting up a business infrastructure that includes HCI at the company's off-site data center to enable a quick system operation should a disaster strike, and offering new services other than the on-premises business infrastructure that the company offers today. "For example, file servers that remain in municipal offices are currently being backed up individually. We would like to consider offering a backup service using our IaaS infrastructure there," says Mr. Takenoshita. He has high hopes for NetBackup Appliance as a mechanism that supports his vision of expanding the company's IaaS environment to many municipalities to grow it into a "municipal cloud" in the true sense of the word.

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FOR MORE INFORMATION

Please contact your local Veritas Sales Representative or Business Partner, or visit: Veritas NetBackup Appliances

ABOUT VERITAS

Veritas Technologies is a global leader in data protection and availability. Over 50,000 enterprises—including 87 percent of the Fortune Global 500—rely on us to abstract IT complexity and simplify data management. The Veritas Enterprise Data Services Platform automates the protection and orchestrates the recovery of data everywhere it lives, ensures 24/7 availability of business-critical applications, and provides enterprises with the insights they need to comply with evolving data regulations. With a reputation for reliability at scale and a deployment model to fit any need, Veritas Enterprise Data Services Platform supports more than 800 different data sources, over 100 different operating systems, more than 1,400 storage targets, and more than 60 different cloud platforms. Learn more at www.veritas.com. Follow us on Twitter at @veritastechllc.

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