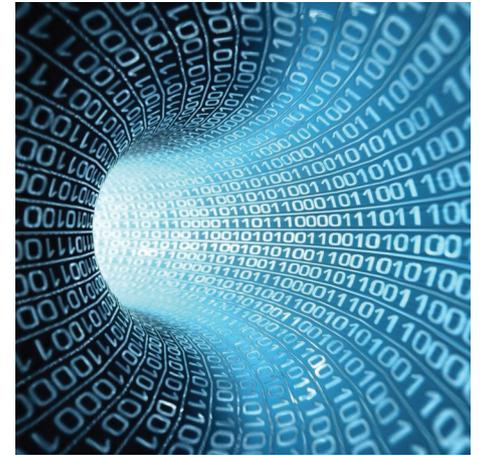


S2 Inc., Ltd.

S2 deploys data centres in Tohoku, Japan. To grow its business, S2 wanted to provide optimised IaaS cloud environments for government, entertainment and gaming. These customers need cloud infrastructure that easily handles peak Internet traffic while minimising downtime or cost fluctuations. The answer was using SUSE® OpenStack Cloud with MidoNet virtual network for a hybrid cloud infrastructure that can be rapidly deployed for reliable commercial services.



Overview

Established in 2006, S2 provides fully customised, comprehensive IT management services to a range of customers in Japan, including companies in local and central government and the entertainment and gaming industries. Its business includes the “Morinomiya Data Garden,” a robust line-up of fully managed data centre hosting services.

Challenge

From its multiple data centres in Sendai and the surrounding Tohoku region, S2 provides and supports system infrastructures for a wide range of customers with specific business needs from gaming to government. Because of its competitive pricing and provisioning of custom-tailored hosting environments, the company has been very successful. However, it

wanted to further expand its business in a manner that best caters to customers’ changing business needs as their market environments evolve and expand.

S2 President and CEO Kohei Sudo explains, “Although we have many customers running small-scale businesses such as restaurants and we deploy infrastructures to rapidly growing start-up companies, our focus is on customers in what we call the ‘B2G’ area, as in Business-to-‘3G’. These account for the major proportion of our sales.”

S2 is committed to building and operating optimised IT infrastructures with all the capabilities its customers require. Many of them have mission-critical business applications that experience demand spikes several times a year. Mr. Sudo remarks: “These customers had been using leading public cloud services which operated like a ‘black box,’ giving them little visibility or control of cost fluctuations arising from these demand spikes.” There was also the inherent danger of vendor lock-in from using proprietary cloud options.

The company went searching for an optimum cloud infrastructure for building a highly scalable hybrid cloud in cases where customer had cost control and flexible resource usage from a high-availability infrastructure. S2 also wanted to be able to leverage the infrastructure as a



S2 Inc., Ltd. at a Glance:

■ Industry and Location

IT Services, Japan

■ Product and Services

SUSE OpenStack Cloud

■ Results

- + *Reduced cloud infrastructure deployment time—from over one year to just three months*
- + *Integrates the services of a variety of vendors to provide the optimum system for S2’s business and its customers*
- + *Provides excellent continuous operation and stability*

“Whereas we had previously struggled for over a year to bring OpenStack to an operational level, SUSE engineers stepped in and we have been able to develop the product to a level we could sell in just three months.”

KOHEI SUDO

CEO and President
S2 Inc., Ltd.

BCP (Business Continuity Planning) solution using a distributed storage technology based on Ceph.

Solution

SEIZING OPPORTUNITIES BY MEETING REQUIREMENTS

The OpenStack Cloud project coincided with the opening of a new data centre in Akita, so the timing was right for S2 for positioning the new data centre as a redundant high-availability location.

S2 took the opportunity to use recycled server assets donated by supporters of the Tohoku recovery efforts. Mr. Sudo recalls, "After the Great East Japan Earthquake, a project was launched to collect surplus servers and personal computers from all over the country and refurbish them with new parts. These were provided free of charge to institutions in the Miyagi Prefecture as part of the regeneration project. While the initial objective was to recycle personal computers, we found that businesses wanted their used servers to be collected, refurbished and reused. This made good sense from a business perspective as well as being beneficial from an ecological and environmental point of view. Our plan is to build them into a distributed software defined storage system using Ceph as part of the new cloud infrastructure. The OpenStack cloud provides the robust foundation to allow the use of this recycled data centre hardware."

SUSE OPENSTACK CLOUD PROVES RAPID BUILD—JUST THREE HOURS

While in the process of studying various cloud infrastructures, S2 heard about SUSE OpenStack Cloud, the OpenStack distribution offered by SUSE. "We had been trying to build an OpenStack cloud

with a large vendor for over a year, but there were too many challenges involving instability and technical support issues. As we struggled to get it up and running, we learned about SUSE OpenStack Cloud through a business associate. The fact that SUSE had a leading position in the development of OpenStack was a reassuring factor for S2 engineers," Mr. Sudo recalls.

Mr. Sudo continues: "When we asked SUSE engineers to build a test environment in our office, they generously stepped in and got SUSE OpenStack Cloud up and running in just three hours. Not only were they able to set up the environment quickly, it was practically operational and stable to a production level straight away. Whereas we had previously spent a year and a half on the project and were not able to add OpenStack to our portfolio, after only three months of validation work with SUSE, we were ready to commercially offer it to our customers."

INTEGRATING WITH MIDONET AND CLOUD METERING SOLUTION

S2 is now deploying private cloud environments based on SUSE OpenStack Cloud for customers at the Sendai data centre. The infrastructure offers a highly scalable environment that will allow customers to effectively handle sudden compute demand spikes. In addition, by building a high-availability geo-cluster with its Akita data centre, the infrastructure will withstand any unforeseen disaster that may occur. By building a shared storage pool, S2 also offers a public cloud environment that is available in 10GB units. "While this solution is currently for a specific customer, we plan to launch what we call 'Highly Scalable Private Cloud' services for all customers shortly," says Mr. Sudo.

"SUSE excels at providing a practical methodology for combining the benefits of public and private cloud features," he adds. The system uses MidoNet, a virtual network infrastructure provided by Midokura Japan, which provides high availability links between Sendai and Akita. It also integrates with Wipro Ltd.'s Cloud Metering Solution for generating customer usage data to be linked to the current billing system. Mr. Sudo considers this a great benefit: "This is the first commercially available service infrastructure in Japan that tightly integrates MidoNet with SUSE OpenStack Cloud, providing functions such as L2/L3 virtual switches and firewalls as well as a load balancing capability."

Results

"This is a new endeavor for us, both technically and from a business perspective. We benefit from SUSE's ability to integrate services from various vendors to build an optimised system best suited for our business and customers," says Mr. Sudo.

He openly admits his appreciation for how SUSE brings both advanced technology, expertise and business-minded proposals to his business. "We can confidently give SUSE a very high rating for the stability of system, which is evidence of their superb technical achievement. The speed of business deployment is the most important thing for start-ups like ours. We have SUSE to thank for getting OpenStack Cloud services up and running so quickly. For some time now, we have also been thinking that we wanted to provide infrastructures that serve as tactical weapons in the arsenal of our systems development customers. There is no doubt that the innovation available from SUSE OpenStack Cloud allows us to provide these environments. It will certainly make a great contribution to

the future of our business,” says Mr. Sudo. He also expresses his appreciation for the way that SUSE works closely with S2 to help collaboratively grow his business.

PARTNERSHIP FOR GROWTH WITH SUSE

Going forward, Sudo wants to use SUSE OpenStack Cloud to build the infrastructures required by his customers. “Starting up the infrastructures required by our target customers quickly and inexpensively is our company’s primary objective. The specifications of many public clouds are designed with the greatest common

denominator in mind. In fact, each industry requires its own features and functionalities. For example, the gaming industry requires very high I/O performance. Our business cannot operate like a vending machine selling prescribed products to everyone. We need to provide tailored services, like a membership dining club,” says Mr. Sudo. He expects SUSE OpenStack Cloud to continuously evolve with his business.

Mr. Sudo also plans to develop a service to fully utilise the new Akita data centre as a BCP (Business Continuity Planning) site

for servers in Tokyo. This will be achieved by using SUSE GeoCluster feature as an extension to SUSE OpenStack Cloud. S2 also plans to expand its footprint overseas. It has already opened an office in Indonesia, where the company will use SUSE OpenStack Cloud as the infrastructure to fuel growth. In reference to S2’s future plans, Mr. Sudo says; “SUSE has a global presence that we can trust to provide support wherever we want to go. We definitely will continue working together with SUSE to build the future of our business.”

**“We can confidently give SUSE a very high rating
for the stability of system, which is an evidence
of their superb technical achievement.”**

KOHEI SUDO
CEO and President
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