

CASE STUDY

Teraoka Seiko Co., Ltd.

The Customer:

Based in Tokyo, Japan, the Teraoka Seiko Co., Ltd., provides store automation and production systems for food, manufacturing, and postal industries.

The Challenge:

- Ensure reliability in a widely distributed, mission-critical network
- Reduce the dependence on expert skill sets
- Make updating patches and the distribution of IP addresses more efficient

The Solution:

- Patented Infoblox Grid™ technology
- Infoblox 1550, 1050, and 550 appliances

The Result:

- A high level of reliability in the overall system
- Centralized management
- Automatic updates across the network
- A foundation for future improvements in disaster recovery



The Customer

Since its founding in 1934, Teraoka Seiko Co., Ltd has been involved in manufacturing, selling, and maintaining automatic spring scales, electronic scales, meters, label printers, point-of-sale (POS) systems, recycling machines, and other equipment. Its products are mainly used by customers in food-processing and by food retail business such as supermarkets. Instead of simply following market needs and manufacturing and selling products, the company develops products that uncover new demand. It considers the building of new markets a necessary condition for its business survival and continues to challenge itself in creating new needs and new markets.

The Challenge

Teraoka Seiko operates in 49 locations around the world, with 13 group company bases and approximately 110 distributor bases in Japan. Currently, about 100 of these bases are connected in a network via Internet virtual private networks (VPNs). The group companies manage the infrastructure and servers of the distributors as well, with the number of nodes under management reaching several thousand.



Before Infoblox products were introduced, there was a risk that a failure in the DNS server would affect all the IT systems because a redundant configuration had not been adopted in the DNS server. Since the existing configuration used FreeBSD/BIND, application management could only be done by IT staff with the requisite technical skills. Furthermore, updating of patches in the servers was troublesome.

The fact that management had not been thoroughly carried out for IP address distribution by the DHCP server was also an issue. Because the IT system administrator has to manage the group enterprise-resource-planning (ERP) applications and client PCs in addition to DNS/DHCP, stable operations had to be ensured at all times—without the important DNS/DHCP operations in the network imposing unnecessary operating loads. In addition, the company believed that technology such as IPv6 would become more widespread in future, and the system would not be able to withstand the operating load on its own.

The Solution

Teraoka Seiko's IT organization started to look into a new solution for IP address management and finally decided to adopt the Infoblox solution. However, compared to low-cost DHCP and DNS servers such as Windows and BIND from Free BSD, it was not an easy task explaining to upper management why the adoption of the Infoblox solution was critical. DNS and DHCP are systems that are not clearly visible to employees outside IT, and so their importance is often hard to understand. However, in the event these systems were to stop working, the entire network would become inaccessible to employees. It was thus necessary to convince upper management that importance outweighed cost.

IT pointed out that as long as they were running a “free” system on their own, in the event a malfunction they would have to resolve everything manually. There was also a risk of problems caused by design omissions and settings omissions. Furthermore, because stable operating 24 hours a day was going to be required in the future to cope with the increase in traffic demand and DNS queries, a system that could stably process a large volume of DNS queries and a mechanism that would allow updates to be carried out without disrupting DNS services was essential.

They pointed out that management becomes complex when a system is built using Free BSD/BIND, and Infoblox products have the advantage of allowing application management to be carried out easily using a graphical interface. Considering the operability, reliability, scalability, and malfunction support related to IP address management, Teraoka Seiko's management came to the conclusion that IT should adopt the Infoblox solution.

The Result

Since Infoblox uses patented Infoblox Grid™ technology, multiple Infoblox products can be divided into master and member products and managed separately. The master and members are continuously synchronized. When upgrading the software version, IT only has to update the master, and other members are automatically updated.

Moreover, by adopting a configuration of high-availability (HA) pairs, even in the event of a malfunction in an active machine, the system will automatically switch to a backup machine within five seconds. Since the active machine and standby machine are both synchronized with the database, service can continue to be provided without having to inform the system that there has been a change in the user.

Teraoka Seiko now uses the Infoblox Grid to manage multiple Infoblox products. The entire system is run using an Infoblox 1550 appliance as the grid master with a HA configuration. An Infoblox 550 appliance is running as a secondary DNS server with a HA configuration, and an Infoblox 1050 acts as a DHCP server with a HA configuration. The result has been a high level of reliability in the overall system. Centralized management is also an advantage, as these systems are all deployed at the information center.

Since it is possible to deploy Infoblox products in multiple locations that are physically separated in a grid configuration, a system with a focus on BCP and disaster recovery is also under study.



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