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NEC

Business Continuity Solution for Pharmaceutical Company

Matsuda Pharmaceuticals Co., Ltd.

松田医薬品株式会社

Implementing a remote clustering environment to maintain business continuity in the event of a natural disaster

Customer
- Matsuda Pharmaceuticals Co., Ltd.

Challenges
- Risk of HQ located in Kochi City becoming non-operational, affecting the remaining 10 business locations.
- Management of the mission-critical systems was concentrated at Kochi HQ with no backups being made at alternative locations.
- Manual data restoration work estimated to take 20 working days, during which business activities would be forced to stop.

Solution
- Implemented EXPRESSCLUSTER, synchronized Server 1 at HQ and Server 2 in Takamatsu through mirroring.
- Improved availability by connecting all locations under a mesh network.
- Implemented a mechanism to remotely manage Server 1 and Server 2.

Results
- Reduces workload of the information system department for making backups.
- Enables server maintenance even during normal operating hours.
- Provides employees and business partners with a sense of security knowing that crucial systems will not stop even during a large-scale disaster.

Introduction

Matsuda Pharmaceuticals, known for its contribution to the nation's health since its founding in October 1947, is a diversified company specialized in both developing and selling pharmaceutical and quasi-drugs, cosmetics including skin treatment agents and bath additives, as well as selling veterinary drugs. It has one factory, one satellite office and eight sales offices located in the Kyushu and Shikoku regions. With the prediction of a major Nankai Trough Earthquake striking the area of western Japan at its highest in recent years, Matsuda Pharmaceuticals has been looking closely at its business continuity planning (BCP).

President and CEO, Mr. Yasuhiro Matsuda explains, "We had been looking into numerous countermeasures in preparation for a Nankai Trough Earthquake for some time, especially since we heard about the huge damage incurred by the numerous companies hit by the 2011 Great East Japan Earthquake. We realized that we urgently needed to implement robust BCP measures for our company as well."

Challenges

Preparing an adequate BCP measure for a Nankai Trough Earthquake

Matsuda Pharmaceuticals' mission-critical systems and information systems are located at its HQ building in Kochi City. Other business locations access and rely heavily on these systems. Operational data was periodically backed up on tape drives but there was no mechanism to back up the system environment, leading to the risk of all business activities coming to a standstill if the HQ building or the system was damaged in any way.

"The server room is on the third floor so there was no concern about a tsunami hitting," recalls Mr. Yuichiro Matsumoto, Manager of the Computing Office in Matsuda Pharmaceuticals' General Affairs Division. "We back up the data every month and we thought that even if damage occurred, we would be able to restore the data manually.

However, it worked out that manually restoring the 30,000 or more items of data processed each month would take about 20 working days with two people working 12.5 hours per day. We concluded that being unable to conduct business activities for 20 days was simply too much of a business risk, and thus started to look into further BCP measures."

During this process, Matsuda Pharmaceuticals consulted local systems integrator Toyo Business Solutions about constructing and coming up with an operational system that had full scale BCP measures in place.

Solution

Implementation of EXPRESSCLUSTER to enable remote clustering

"To support future business growth, we needed to implement a remote backup mechanism based on a high availability (HA) cluster," says Mr. Teruyoshi Sugino from Toyo Business Solutions Co. Ltd. "After examining the available products, we recommended NEC's EXPRESSCLUSTER, well known as the No. 1 product in the clustering software market in Japan."

A remote cluster system was constructed by using mirroring to synchronize Server 1 at HQ with Server 2 installed at the company's sales office in Takamatsu City, Kagawa Prefecture. The network linking all the locations was updated to a mesh network layout enabling business continuity in the event of failure. A mechanism

was also implemented to allow Toyo Business Solutions to remotely manage both servers at the Takamatsu and Kochi HQ locations whenever required.

"In a trial run prior to implementation, there was an incident where an engineer accidentally shut down Server 1," says Mr. Sugino. "I thought it was going to cause a terrible problem, but EXPRESSCLUSTER immediately failed over to Server 2 located in Takamatsu, so operational continuity was maintained."

"This inadvertent error demonstrated to us the real capabilities of EXPRESSCLUSTER," says Mr. Matsumoto. "Despite Server 1 being forced to stop, all our locations were able to continue their business activities without any problem. This gave us great confidence in the system, and an enormous sense of security."

*Source: IDC Japan, July 2016 "Japan System Software Market Shares, 2015: Expanding Open Source Strategies." (JPE40932116)
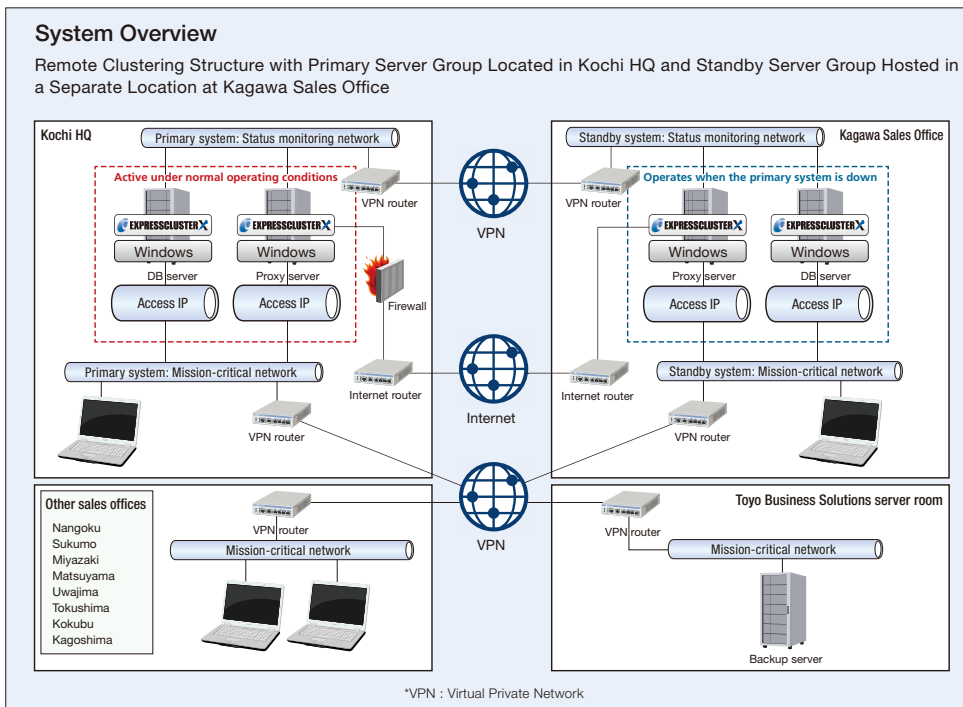
Results

Establishment of a solid business continuity environment against major disasters

Since its release in July 2013, the system has been operating without any issues. The benefits are clear. The work required by the information system department in making backups has been considerably reduced, server maintenance can be conducted even during operating hours and most of all, employees and business partners feel secure knowing that the business systems will not go down even in the event of a major disaster striking Japan.

"A few days ago, there was a network system issue and we decided to switch the information system from Server 1 to Server 2," mentions Mr. Matsumoto, explaining the benefits of EXCPRESSCLUSTER. "But not a single employee noticed this transition taking place and it is this smooth yet stable switching process that creates a great HA clustering system."

Mr. Matsuda described the effects from a business management perspective. "More than anything, the greatest benefit has been the security of knowing that we will be able to continue our business even in the event of a disaster."

System Overview

Remote Clustering Structure with Primary Server Group Located in Kochi HQ and Standby Server Group Hosted in a Separate Location at Kagawa Sales Office

Implemented EXPRESSCLUSTER to create a remotely clustered structure made up of a primary server located in Kochi HQ and a standby server hosted at the Kagawa Sales Office. The servers are synchronized by mirroring the latest data, while operations are failed over to the standby server in the event of a disaster or failure, enabling business continuity at all locations.