Campus Communication Platform that Knows No Boundary - Mail2000 Messaging System-

”By selecting Openfind Mail2000 Messaging System, we benefit from the ease-of-management and low-cost of maintenance and ownership, while harden their mission-critical message networks across campus”

Ritsumeikan University

Background

Multi-User Sharing IT Environment

Ritsumeikan University currently has about 35,000 undergraduate students and 5,000 faculties, along with the admission of approximately 7,000 new students each year. All email accounts are centrally managed by the Campus Information Center, including email accounts creation, maintenance, and production of system-operation manuals are mission-critical tasks to IT personnel. The Information Center adopted Asahi Net’s RAINBOW network system, expecting it to facilitate the centralized management of equipment distributed across campuses, Kinugasa campus in Kyoto and Biwako-Kusatsu Campus in Shiga-ken.

The hardware and network equipment were introduced in 1994. At that time, there was no standard Internet protocol. Ritsumeikan University used the ATOSON email system and ATOSON BBS System of ASAHI NET. In 1995, when the email system was gradually opened to all students and professors, it triggered an explosion of sent and received email. The computer rooms were always packed with students busy sending and receiving email over the ATOSON system. Some students even stayed online for eight hours at a go! Meanwhile, students greeted each other with “Did you ATOSON today?” ATOSON became a new student movement in its own right.

Although the ATOSON email system helped students get closer to computers, there were still imperfections. For example, the amount of received email was restricted to 100 messages. Once too many students logged on, the system could not handle the burden and tended to crash. Therefore, the Information Center started to seek another email system solution.

Considering that online services are not able to provide to students individually, and have to share computers on a first-come-first-served basis for email. It is important to prevent personal information leaks when students use email on the campuses. Also, it is essential to deliver robust performance, allowing multiple users to login without sacrificing the efficiency of operations. All these were priority concerns for the Ritsumeikan University Information Center in the search for new email system solutions.

Challenges

High-reliability and high-performance priorities

Pre-Implementation Issues

- Less reliable, especially on peak time.
- Did not support distributed system architecture.
- Frequently contained gibberish because of differences in coding methods.
- The old system didn't support HTML-formatted email.

Client Expectations

- Fast response even during heavy email access and storage.
- Allow to be accessed anytime and anywhere with full-fledged WebMail features.
- Streamline architecture for load balancing.
- Support multi-language and HTML browsing/composing

In 2000, Ritsumeikan University originally hoped to adopt a web-based email system that integrated IMAP4 and email servers, mainly because ATOSON delivered email via IMAP4. Though, the web-based interface was easy and user-friendly but unable to survive stress testing, especially in the heavy load on peak time.

For example, if students in computer classes were surfing online by sending and receiving email concurrently. The maximum load the system could bear was 4,000 simultaneous users only. Meanwhile, stress tests found that the system could not cope with a large volume of email and crashed easily. Therefore, Ritsumeikan University started to look for other email system solutions that could meet their growing demands.

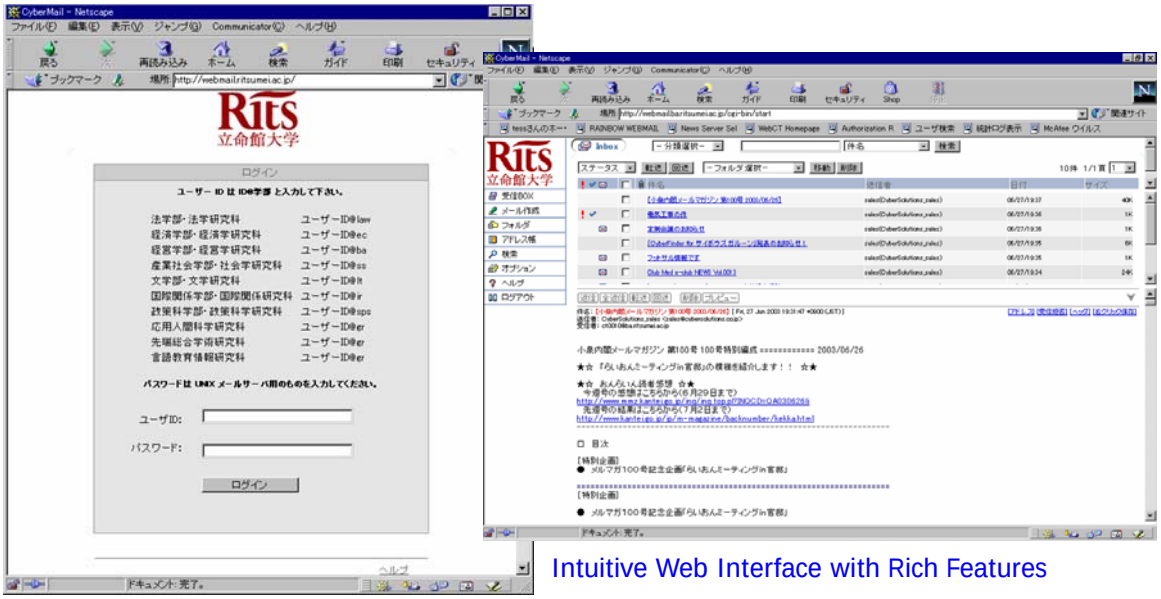
Afterwards, Ritsumeikan University introduced a web-based email system from the United States that was touted as the fastest. This system was in use for about a year. Although it supported distributed servers, it still failed to effectively resolve problems such as multi-language and HTML support.

After a series of tests to compare email systems from different vendors, Ritsumeikan University found that it was not a trivial matter to find an email system that could meet their demand, provide email services to students and offer a rich variety of functions.

Solution

Exceeding Expectations

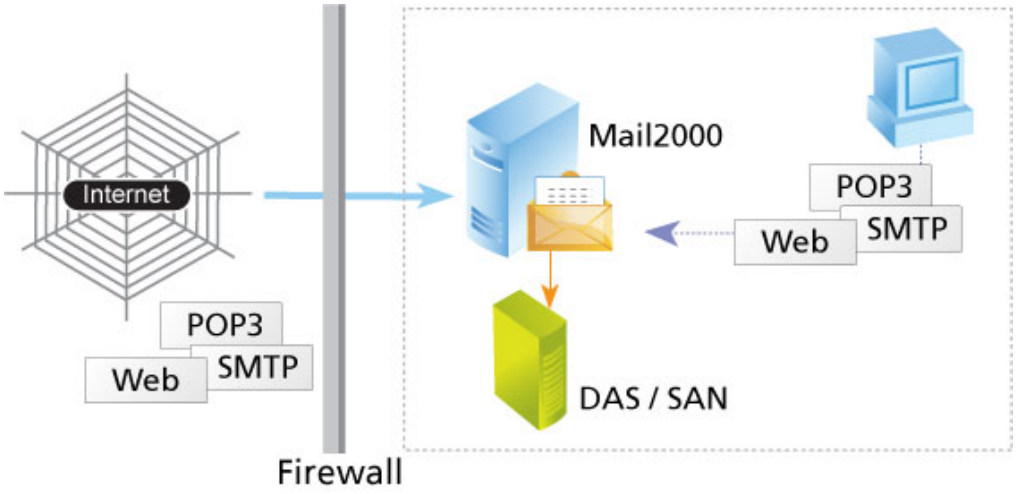
During the second half of 2002, as soon as the University became familiar with Mail2000, they knew that it was a reasonably priced email system that was reliable and fast. “At the time, Mail2000 had just entered the Japanese market and was not well known;” Muneshige Shinyam, Information System Division Director of Ritsumeikan University. “However, as the products of many big companies could not meet our demands, we thought we might as well give it a go.” Surprisingly, Mail2000 far exceeded expectations at relatively low cost. Only installed one standard Linux server can provide stable services even when there were 800 computers accessing email at the same time. In addition, load balancing could be achieved by increasing the number of servers. All these features met the requirements of Ritsumeikan University.



Intuitive Web Interface with Rich Features

With the flexible and simplified system architecture of Mail2000, fault tolerant and load balancing can be achieved simply by using multiple servers and NAS (Network Attached Storage). More than being a web-based front-end for legacy mail servers, Mail2000 is a full-featured comprehensive email system, providing efficient storage utilization, reliable message transmission and support a variety of access interfaces. While some other web-based front-end system has to fetch mails from original mail system, Mail2000 provides complete functions of sending, receiving, and accessing mails. For instance, some mail systems use IMAP4 to retrieve mails from legacy email servers and then offers web interface to users. In the past, the email systems from other vendors could not function normally if there were too many users (computers) logged in. The Information Center staff at Ritsumeikan University was very impressed and pleased with the high reliability and performance of Mail2000.

Since the formal introduction of Mail2000 in 2003, the system has never broken down as a result of heavy traffic. In the beginning, a total of six servers were installed to ensure security. However, Information Center that has taken advantage of the Mail2000 and been pleased with the outcome, decreasing 6 servers to 4 due to the high speed, reliability and low downtime of Mail2000. Even though the volume of email with attachments, HTML email and spam has been growing rapidly, increasing the burden on the servers, Mail2000 remains stable and steady in its services.



▲ Mail2000 Server DAS/SAN System Structure

Benefits

Innovative Functionality Maximizes Productivity

As Mail2000 provides ubiquitous user access, students are capable to use email services, at home, on the campuses and in job searches. They can send and receive email without boundaries. Students tend to rely heavily on email for job searches before graduation because they correspond with employers who have university email accounts. In addition, they can separate personal and business email by transferring all personal correspondence to email accounts on handsets provided by mobile operators.

With the horizontal scalability of Mail2000, administrators can quickly change or configure system settings via browser, and improve downtime while lowering maintenance effort and cost. Moreover, Mail2000 provides My Files features for efficient communication and file exchange between professors and students, such as teachers would take the advantages of Mail2000 Virtual Folder to manage report submission, or provide different quotas based on class or user level.

In the future, Ritsumeikan University will continuous launch Mail2000 to other campuses and affiliated schools. Although the Information Center will get busier and busier, the University will always endeavor to create a more convenient IT environment by using the state-pf-art web-based email system that meets the needs of today's educational environment.

User Profile

Ritsumeikan Asia pacific University was founded in April 2000. With approximately half of its students coming from over 50 different countries, APU is a "multicultural community." More information, please visit :http://www.ritsumei.ac.jp