

**High System Availability with JP1 for Centrally Managed Center Server  
SLA Requires Precise Operation Analysis for High Level Service**

Sumitomo Forestry Co., Ltd. has been able to maintain a high level of system availability since the year 2000, when it began using Hitachi's integrated systems management software, Job Management Partner 1 (JP1), to manage its open system center server. Then, in 2003, Sumitomo Forestry concluded a Service Level Agreement with its subsidiary, Sumitomo Forestry Information Systems Co., Ltd., which is responsible for IT development and operation. Sumitomo Forestry Information Systems plans to institute strict service-level management based on the importance assigned to various systems, including a 24-hour call center. They decided to install Hitachi's JP1/Performance Analysis - Manager (JP1/PAM). This program provides visual representation and automatic resource management and analysis, and can report the status of the system operation to the end user. Sumitomo Forestry will use the performance evaluation provided by the program in planning future resources, such as hardware enhancements, to further improve system availability.

**USER PROFILE**

<b>Company name:</b>	Sumitomo Forestry Co., Ltd.
<b>Headquarters:</b>	Shinjuku Green Tower Building, 14-1, Nishi-Shinjuku 6-chome, Shinjuku-ku, Tokyo
<b>Founded:</b>	1691
<b>Incorporated:</b>	February 20, 1948
<b>Capital:</b>	27.672 billion yen
<b>Revenue:</b>	564.487 billion yen (FY2002)
<b>Number of Employees:</b>	4,454 (as of the end of March 2003)
<b>URL:</b>	<a href="http://www.sfc.co.jp/e_sumi.html">http://www.sfc.co.jp/e_sumi.html</a>
<b>Business overview:</b>	Provides all types of housing-related services utilizing wood, a natural, renewable and earth-friendly material. Examples of the company's businesses include forestry management; environmental control, waste material recycling and overseas afforestation; the manufacture and distribution of lumber and building materials in Japan and overseas; the construction and marketing of custom-built wooden houses; and the remodeling and marketing of existing homes.

**PARTNER PROFILE**

<b>Company name:</b>	Sumitomo Forestry Information Systems Co.,Ltd.
<b>Headquarters:</b>	Makuhari Techno Garden B Block 7F, 1-3 Nakase, Mihama-ku, Chiba-City, Chiba
<b>Established:</b>	November 1, 1991
<b>Capital:</b>	100 million yen
<b>Revenue:</b>	3.7 billion yen (FY2002)
<b>Number of Employees:</b>	77
<b>URL:</b>	<a href="http://www.sumirin.co.jp/">http://www.sumirin.co.jp/</a>
<b>Business overview:</b>	Provides total support to Sumitomo Forestry and the Sumitomo Forestry Group of companies, including information system consulting, system integration services, network solution services, network operation services, help-desk support, and IT training. The company helps integrate advanced technologies in system development as well as in operation management.

**Integrated Management: Key for both Mainframe and Open Systems**

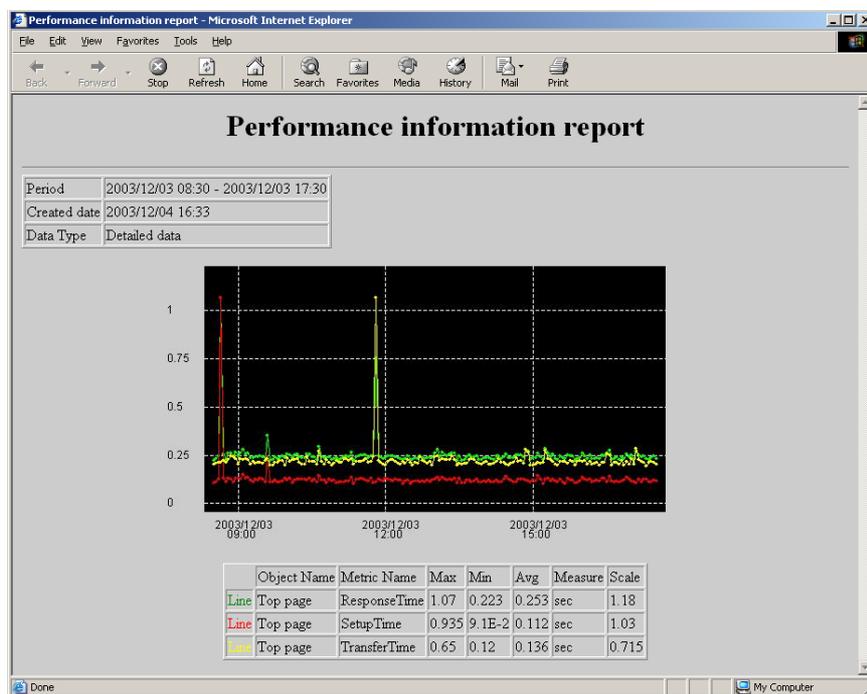
Sumitomo Forestry provides various housing-related services, with the construction/sale of new houses and the distribution of timber and building materials as its two core activities. The company's information system is also divided into two parts: one devoted to the housing business and the other to the timber/building materials business. Expecting that the use of the Internet for business would expand in the future, both were designed as web-based systems from the start.

The Integrated Customer Management System for supporting the housing-related businesses, and the Process Management System for the over 1,500 group companies, are both advanced web-based systems. When the time came to install an open system with a high degree of flexibility, Sumitomo Forestry avoided client-server systems, which require high operational overhead, and instead turned to a web-based system, which can be centrally managed.

As the number of UNIX servers for web-based systems began to increase, Sumitomo Forestry Information Systems set out to revise its operation management policy.

"We used outside consultants to define our operation management requirements under an open system environment," said Mr. Hidekazu Kaneko, acting manager of the Operation Management Section at Sumitomo Forestry Information Systems, "and then developed our management policy. During the course of this effort, we realized that the fundamentals of operation management policy are the same for both mainframes and open systems. Maintaining a high service level through integrated management is a common requirement for any type of operation management."

To implement its advanced operation management policy, the company installed Hitachi's integrated systems management software JP1. Their decision was based on the following:



**Performance Analysis Window**

- 1) The JP1/Integrated Manager (JP1/IM) integrated console allows for central management of all systems. Various types of management information – network monitoring, resource monitoring, batch jobs, and automatic backup – can all be accessed from a single (mainframe) console, making the entire system easy to use.
- 2) JP1 has excellent job management functions. It can not only schedule multiple jobs over multiple servers, but can also centrally monitor job status. Because Sumitomo Forestry's systems involve advanced and complex job operations – sometimes incorporating as many as 300 steps in a single job – high efficiency was extremely important.
- 3) JP1 supports multiple operating systems. Although Sumitomo Forestry normally uses HP-UX in center servers, it also uses Solaris and Windows in some systems, and plans to start using Linux as well. That made it important to lay the foundation for an operation management system that could support any OS needed for future applications.

**JP1: High System Availability, Detailed Management, Full Functionality**

Sumitomo Forestry's system availability requirements are extremely high.

In the housing system, for example, a 24-hour call center handles inquiries from customers to the 54 branch offices nationwide and the three operations centers in Tokyo, Osaka, and Nagoya. Because this call center is able to provide quick answers to customers' maintenance-related questions, including questions about plumbing and electrical fixtures, customer satisfaction levels have been very high. But this requires that the server that integrates the customer management systems used at each key site and at the call center be operational 24 hours a day, 365 days a year.

To satisfy this availability requirement, Sumitomo Forestry Information Systems set the threshold values for operation management not at the server level, but on a level of greater detail: the directory level.

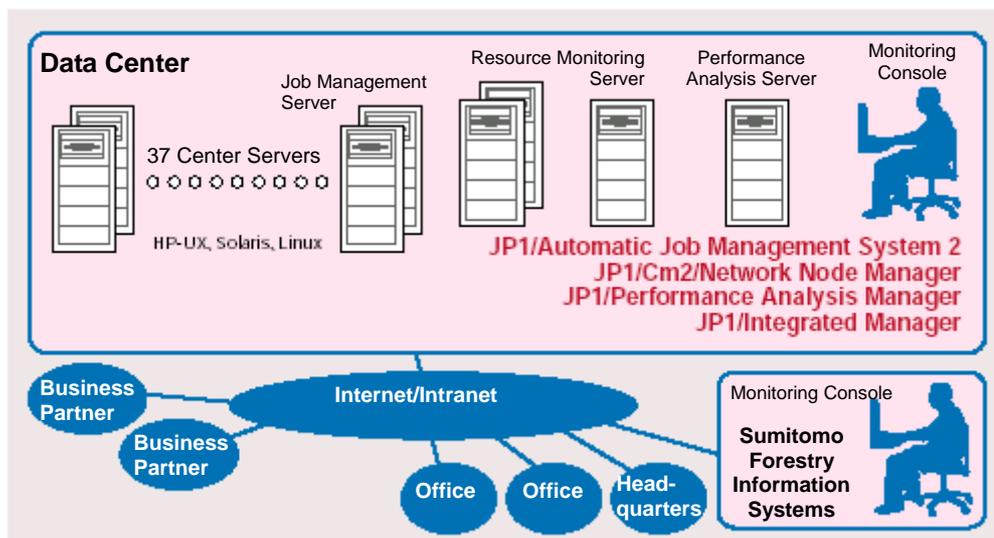
Mr. Kaneko observed that some jobs use resources dynamically and others statically, which means that using standard e-mail notification when "disk usage over 80%" is not helpful in maintaining the high service level that users expect.

Currently, Sumitomo Forestry Information Systems' robust operation management system sorts all messages output by the OS and individual applications into different levels, and forwards the important ones via cell phone. According to Mr. Kaneko, there are four benefits to using JP1:

- 1) Integrated management has reduced labor costs. The mainframe operators who staff the data center 24 hours a day, and the three or four SEs (including Kaneko himself) have been enough to manage all 37 center servers running multiple OSs.
- 2) System availability has improved. Sorting messages according to their importance allows countermeasures to be taken against possible future errors – compressing data when disk usage reaches a critical level, for example. Additionally, a framework has been implemented linking the monitoring system with the job management system to automatically reboot the system whenever an error occurs on the web server.
- 3) JP1 allows flexible, integrated management of all system functions, including proprietary tools developed by Sumitomo Forestry Information Systems itself. For example, the company created convenient subsystems – such as an alarm to indicate the need to fine-tune the database – but even the messages from these subsystems can be centrally managed by JP1/IM.
- 4) JP1 allows administrators to provide feedback, such as suggestions to system developers, based on objective data. System availability can be increased only when there is two-way communication.

As Mr. Kaneko puts it: "JP1 is now like a heart that pumps blood throughout the entire system. At the system development phase, we can even develop batch jobs using JP1 functions."

**Sumitomo Forestry Integrated Operation Management Overview**



## **Performance Analysis Based on Quantifiable Data Means Improved ROI**

The SLA between Sumitomo Forestry and Sumitomo Forestry Information Systems was signed in 2003. Clear target values for three parameters – uptime, error count, and recovery time – were included in the formal agreement. This was an indication of the two companies' goal of increasing system availability while objectively assessing cost performance through quantifiable data.

Which is why Sumitomo Forestry Information Systems installed JP1/Performance Analysis - Manager (JP1/PAM).

Using an array of operation performance information, JP1/PAM monitors and analyzes system status across the board, and automatically provides preliminary identification of system errors. For Sumitomo Forestry, whose mission-critical jobs run on a web system, the ability to integrate management of both the server resource usage status and the responses to end users is tremendously beneficial.

The report window is easy to read and is easily customized, allowing operation status to be accessed by end-users. Additionally, Sumitomo Forestry expects the results from an evaluation of operation performance to provide the data for deciding on future system enhancements, including hardware.

Sumitomo Forestry Information Systems is also planning to install JP1/Extensible Service Probe. This program which collects operation performance information from multiple locations, including headquarters and branch offices, to measure service response for each line size and job. By analyzing performance using both quantifiable data and the users' input, the company aims to improve its ROI.

According to Mr. Kaneko, the task at hand is to develop and build a "truly innovative" operation management system. This requires that the vendor, developer, and administrator work together as a team. "We are counting on Hitachi," says Mr. Kaneko, "to continue as a member of our team."

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