

Case Study

HIROSHIMA CONSUMERS' CO-OPERATIVE SOCIETY

HIROSHIMA CONSUMERS' CO-OPERATIVE SOCIETY adopts Express5800/BladeServer and MetaFrame XPa to consolidate product master servers for running cost reduction and response time improvement.

System Overview	Back ground of System Adoption	Effects of System Restructuring	Future Prospects	Customer's Profile
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System Overview

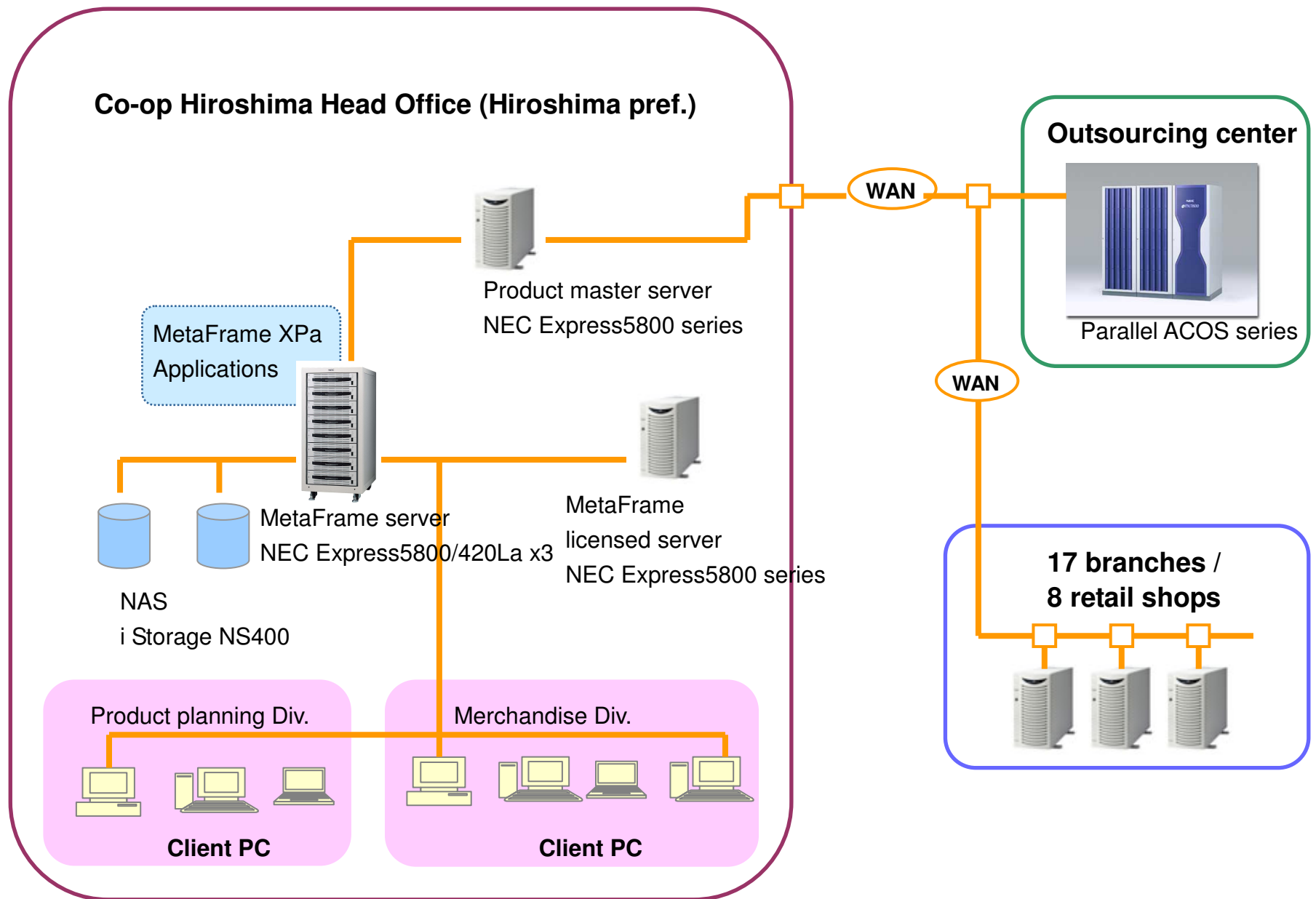
Based in Hiroshima Prefecture, Japan, Hiroshima Consumers' Co-operative Society (Co-op Hiroshima) has been serving its society members with safe and reliable products for more than 30 years. As one of its main business activities, Co-op Hiroshima operates non-store retailing, currently deploying 17 branches to provide the service throughout the prefecture. Along with the non-store retailing business, it also runs 8 retail stores to provide its members with various supports for their quality lives. These stores handle a wide variety of daily essentials ranging from fresh foods to convenience goods and clothes. The number of products that Co-op Hiroshima handles has been further increasing in order to satisfy varying needs of about 330 thousand society members.

The information on all these product lines is managed by the product master control system. Co-op Hiroshima was running its whole management systems, including the product master control system, in the form of client-server system. However, a total of 26 servers, which are located separately across the 17 branches, including the head office, and the 8 retail stores, were boosting the costs for system maintenance and operation. To solve this problem, Co-op Hiroshima prepared a TCO reduction plan to integrate these 26 servers. In September 2002, Co-op Hiroshima has embarked on the first stage of the plan by adopting the space-saving high-density Express5800/BladeServer 420La and MetaFrameXPa to consolidate the head office's product master control system. This was the beginning of Co-op Hiroshima's efforts for building a large-scale server-based computing environment.



▲ With its outstanding flexibility to address future business development, NEC Express5800/420La (accommodated in the enclosures at the bottom inside the rack cabinet) supports the consolidated product master control system. Two of the storage appliance server iStorage/NS400 are located at the top inside the cabinet.

● **Product Master Control System of Co-op Hiroshima - Image of the System**



Co-op Hiroshima's dissatisfaction with their client-server system stimulated their need for server-based computing.



Michihiro Kutsunugi
Director of Product
Management
Co-op Hiroshima

The Cooperative Society Hiroshima (referred to as Co-op Hiroshima hereinafter) was established in 1971 to provide joint purchase-based non-store retailing service to be participated by its society members. While Co-op Hiroshima primarily operates the joint purchasing on the basis of a group of 4 or more members, all the branches also provide individual-basis delivery service to respond to the rapidly changing life styles of the participating members. "For non-store retailing, groups were playing the central part in joint purchasing. But the relationships between neighbors have transformed over the recent years, generating nuclear families. This is now making it difficult to form groups with neighbors. Most of the old members from the time of establishment are the so-called 'baby boom generation,' who are highly concerned about child raising and healthcare. However, they are now in their late 50s. The ages of our whole members and their needs are diversified after these 30 years. Under the circumstance where the increasing number of companies are entering the non-store retailing market, we should not be over-reliant on our success and trust we have achieved but should be more competitive in costs and make efforts for providing precise product information to prove us reliable." said Michihiro Kutsunugi, Director of Product Management.

As one of the steps to take in order to address such a business environment and to make drastic changes in ongoing management and product strategies, it was essential to reinforce the information system for high-mix low-volume retailing and to reduce system management costs. "We reviewed our client-server system from the perspective of running costs, and found out that a total of 26 servers located across our branches had been lifting our operation costs considerably. These costs were coming from the licensing fees for operating systems and applications, and the costs for maintenance and lease hardware. Mr. Kutsunugi, Director of Product Management, brought us an opportunity to review our spending when he raised a question, 'Do we really need all these servers?'" said Mr. Akira Ueda, Manager of Information Service Section, Product Management Division. From the viewpoint of Mr. Kutsunugi, who has been in Merchandise Division before, it seemed futile to him to place several servers in different locations, while they are all playing the same role. However, this became a breakthrough for Mr. Ueda. "We started planning a system restructuring around 2001, when the idea of server-based computing was widely spreading in Japan. Then I had a chance to get to know MetaFrame at an IT promotion event. This made me seriously think about the restructuring methodology," said Mr. Ueda. He then turned to the Japan Cooperative Society, upper management body over all the regional Co-op head offices, and their information system told him that the MetaFrame was already in use for evaluation by some of Co-op local offices. After visiting Co-op Miyagi, which already had adopted the MetaFrame, he came to realize the benefit of the new system and moved on to adopting.

Establishing the server-based computing to consolidate multiple servers of different locations leads not just to reducing the costs for servers but also to simplifying the overall system architecture. However, considering the ongoing lease contracts on the servers in use and the costs for the system restructuring, it was not realistic to make the entire system new all at once. He then determined a gradual system renovation. "We made up a 3-stage restructuring plan. First of all, the product master control system in our head office is replaced by the MetaFrame, followed by 17 branches in the second stage and the rest of the retail stores in the final stage. We also decided to replace pedestal servers with rack-mount models, taking into account their future expandability and space-saving feature. Then we chose NEC Express5800/BladeServer 420La" said Mr. Ueda.

NEC Express5800/BladeServer 420La was adopted in the first stage of the server-based computing plan.



Akira Ueda
Manager of Information
Service Section,
Product Management
Department,

Linked with the parallel ACOS system, Co-op Hiroshima's open-system product master server in the head office processes the requests from internal clients of Product Planning Division and Merchandise Division for the changes and deletions in product lines and the weekly registrations of new products and special sales items for joint purchasing. All renewed data is transmitted to the ACOS at night for data integration and transferred to database servers in the 17 branches and the 8 retail stores for regional reference use. In the first stage of the plan, the MetaFrame architecture was established to cover the product master server and the individual clients of Product Planning Division and Merchandise Division.

In September, 2002, Co-op Hiroshima adopted three of Express5800/BladeServer 420La as one MetaFrame server, together with two of iStorage/NS400 in the head office system. The newly established MetaFrame system amazingly improved response time without upgrading PC capabilities. "3 years ago we carried out open-systemization and strengthened system functionalities. But because of lacking PC resources, the response time was unfavorable, and 2 to 3 minutes were needed to complete a single processing. But with the MetaFrame, it's done in the blink of an eye," said Mr. Ueda. Furthermore, the MetaFrame with a load-balancing function not only improves the response time but also delivers both high availability and space-saving advantages, when combined with the BladeServer that accommodates 6 blades in a 3U chassis. The scalability of the BladeServer makes it possible to expand our system by simply adding blades in the coming second and the third stages.

With its Active Directory and authentication function, Network-Attached Storage (NAS) was adopted at the same time and made accessible over the network. All users are called upon to store their PC data into the NAS. "We adopted the NAS not just as storage, assuming our use of Microsoft Office in the future. Microsoft office is used over the MetaFrame and our data is stored in the NAS. This leaves no data on our client PCs. We believe the leakage of customers' personal data can be prevented within our new system," said Mr. Ueda. As a countermeasure to protect personal data of the members, the adopted system is considered prospective.

Future prospects

Further system expansion, such as web networking, is discussed to meet diverse needs of the society members.

Starting with building the MetaFrame in its product master system, Co-op Hiroshima embarked on integrating the existing servers. The shift to the MetaFrame will take place within the branch system this year and in the retail stores the next year.

When asked about the future prospects of the entire system, Mr. Ueda said, "We are currently considering not just consolidating our servers but also centralizing branch-basis joint purchase orders for OCR processing. By centrally controlling our services as well as servers, we would like to improve our overall cost structure." Co-op Hiroshima is distributing some of the product items through its website and considering further expanding the on-line service. "In order to meet diversifying needs of our customer members, we believe the Internet has great potential as a distribution tool. But for the on-line order service, we have to deliver the same level of ease and convenience as simply filling out order forms and sending by fax, like our customers do now. Special consideration is needed for elderly customers."



**Head office of Co-op Hiroshima
(Saeki-gun, Hiroshima pref.)**

"Networking leads to improved efficiency in in-house businesses, such as sales performance analysis, product distribution analysis and information sharing. So we are interested in building web networking in our system, in the light of system operation as well. We are now trying to find out the best way for it, considering system architecture, operationality and security," said Mr. Ueda. Behind Co-op Hiroshima's continuous efforts for the betterment in their system environment and business efficiency, there is a sincere attitude towards engaging in their primary mission to satisfy the needs of the customer members. With this attitude Co-op Hiroshima will be able to further strengthen the trust it has achieved so far.

Customer Profile

Name: HIROSHIMA CONSUMERS' CO-OPERATIVE SOCIETY
Address: 1-2-10 Onohara-cho, Saeki-gun, Hiroshima Pref., Japan
Establishment: 1971
Total members: 325,152
Capital: 10.259 billion yen
Turnover: 45.841 billion yen (as of March 2002)

Co-op Hiroshima, one of the leading co-operative societies, has been operating mainly in the city of Hiroshima since its establishment of 1971. Currently it operates 17 branches and 8 retail stores, with participation of 330 thousand society members. Primarily engaging in joint purchasing (non-store operation) and store retailing, Co-op Hiroshima also runs a variety of other businesses, including "CO-OP mutual benefit society," house cleaning, travel services, housing renovation and so on. Furthermore, Co-op Hiroshima is proactively getting involved in community-based activities by managing a welfare information consulting center and environmental conservation activities, while committing itself to grassroots peace-keeping activities that can be seen nowhere but in Hiroshima.

Co-op Hiroshima URL: <http://www.yumeichi.ne.jp/hcoop/>

* Interview date: June 5, 2003)