



INFORMATION-TECHNOLOGY PROMOTION AGENCY, JAPAN

Activity overviews and outcomes of the “Introduction & Demonstration for Open Source Software Utilization among Municipalities” project promoted by IPA

Information-technology Promotion Agency, Japan
Open Source Software Center

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2005 Activity Overview

- Conducted following the 2004 project “Introduction & Demonstration for Open Source Software Utilization in the School Education Scene.”
- For substantial propagation of OSS desktops among municipalities:
 1. To clarify potential areas for effective utilization, required features, economic effect, and problems associated with their introduction and operation by introducing OSS desktops to municipalities’ operations. To establish efficient transfer procedures to permit the utilization of existing resources from OSS desktops.
 2. To allow other municipalities to advance into trial and regular operation by summarizing outcomes from this introduction & demonstration project including effective utilization methods, user training, introduction procedures, operation methods and case examples as an introduction guidebook.
 3. To define the support required by municipalities by clarifying desirable arrangements and methods for OSS utilization through this introduction & demonstration project.
- 4 target municipalities were chosen out of 14 applications received through open invitation.

2005 Target Municipalities

Tsukumi City, Oita
demonstrated integrated,
centralized control of an OSS
desktop in a network boot
environment

**Sapporo City
Waterworks Bureau**
demonstrated competence in
waterworks bureau's
operations involving multiple
remote bases

**Urasoe City,
Okinawa**
verified the feasibility of
OSS desktop - general
business system connection

**Ninomiyamachi,
Tochigi**
demonstrated competence in
practical aspects of the town's
operation through a total shift
to OSS

Ninomiyamachi, Tochigi

Objectives of Introduction & Demonstration



- To demonstrate its competence for a municipality's operations through a total shift of the town's "Information system terminals" to an OSS desktop.



Themes

- To demonstrate competence for a municipality's operations.
 - Existing data transfer
 - Establishment of training methods for employees with differing skill levels.
 - Clarification of the types of support
 - Cost comparison with a non-OSS desktop
 - Operation management levels comparable to those available in the existing environment

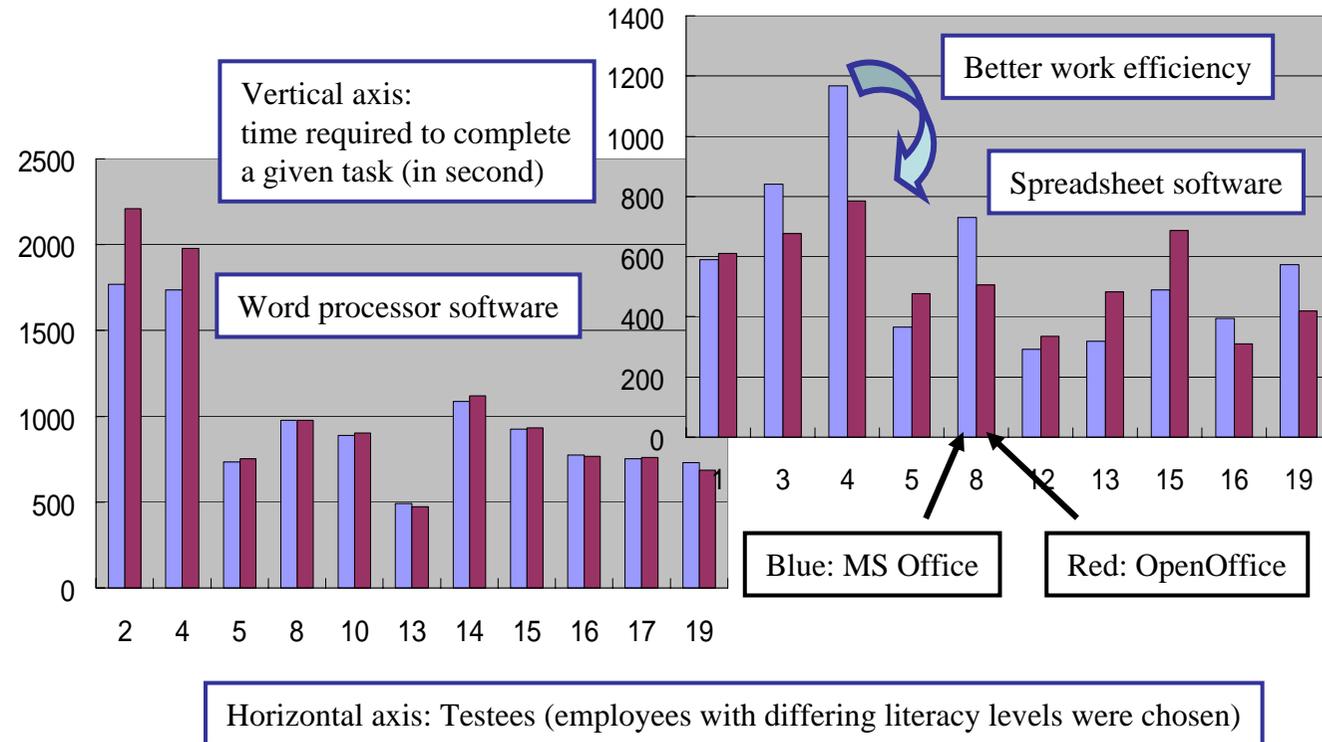
Ninomiyamachi, Tochigi

Admissibility to Employees with Differing Literacy Levels



- Based on comprehensive status studies, all tasks performed with the existing system were carried out without a hitch during and after the shift to an OSS desktop.

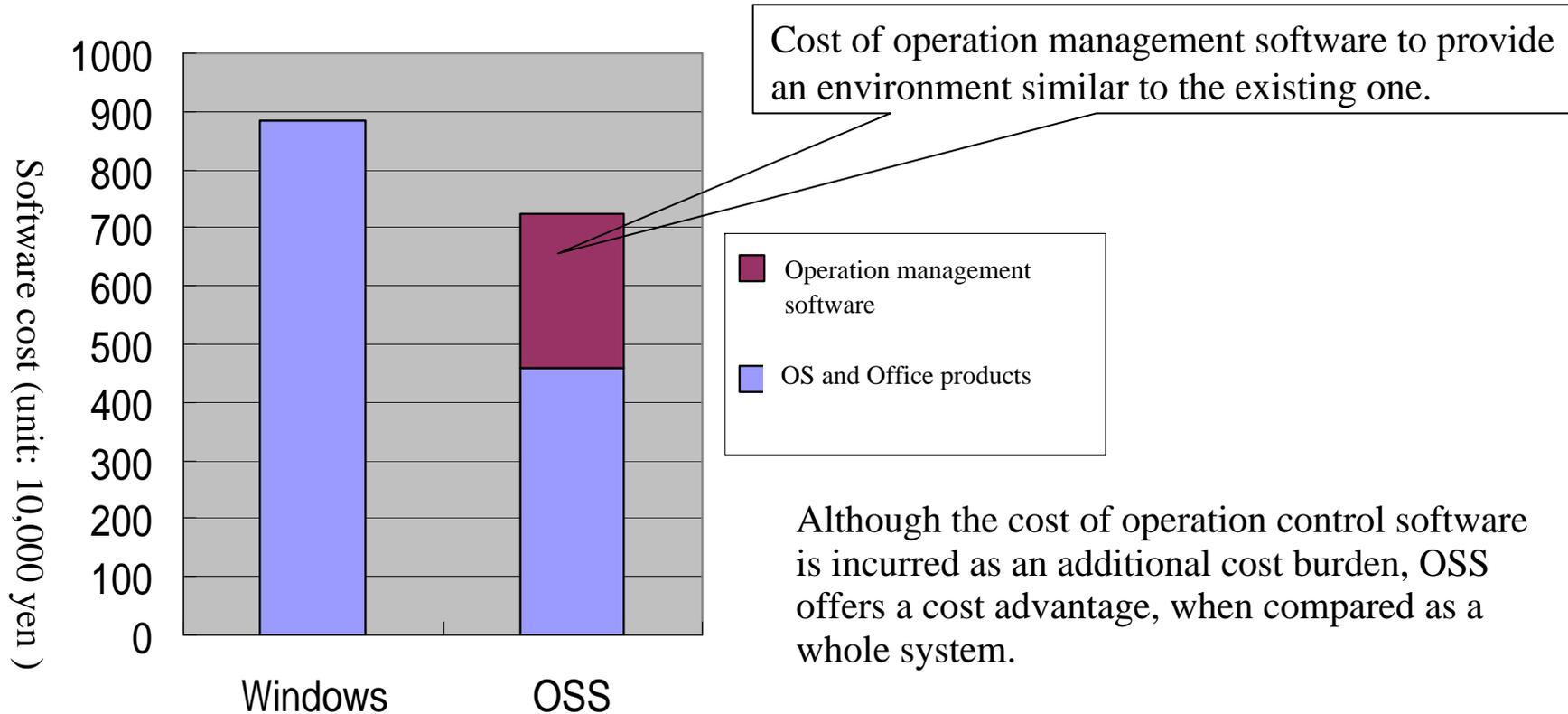
- Some employees reported better work efficiency after the shift to an OSS environment.



Ninomiyamachi, Tochigi

OSS Desktop vs. Windows Desktop Cost Comparison

- Condition: To maintain the current levels (functions, automatic updating, etc.)
Compared by the price of software purchased for the 139 OSS desktops introduced



Ninomiyamachi, Tochigi

Points and Outcomes of a Shift to an OSS Desktop

- Comprehensive status studies and careful scheduling are required.
- Development of training curricula for data transfer and literacy level improvement are required.
- Arrangements to render support in cooperation with the O O O community are required.
- Improvement of operation management efficiency through the introduction of operation management software is required.



Outcomes

- Transfer of know-how was summarized as a written procedure.
- In Ninomiyamachi, everyday tasks are being performed on an OSS desktop at present. OSS has proven competence in municipality operations.
- Data and materials for the development of diverse curricula targeting employees with differing skill levels were obtained.
- Various applications also required support.
- Most of the existing data were transferable, but improvement was desired for the even spacing and soft return inhibition functions.

Sapporo City Waterworks Bureau

Objectives of Introduction & Demonstration



- To demonstrate the effectiveness of OSS communication tools in the waterworks bureau's operations involving multiple remote bases by introducing an OSS-based "Video conference system" to Sapporo City Waterworks Bureau.

Themes

- Verification of the practicality of multimedia software built as OSS, which is thought to have weakness in multimedia.
- Establishment of supportive arrangements jointly with local IT businesses.
- Clarification of the menu of support for OSS desktop introduction.

Sapporo City Waterworks Bureau

Features and Outcomes of Sapporo City Waterworks Bureau's Shift to an OSS Desktop



- Supportive arrangements formed jointly with local IT businesses
 - A support desk organized by local businesses can serve for the purpose.
 - Developed on the site and immediately put in commission, thanks to their OSS-related development capability.
 - Software necessary for a video conference system was verified, and parameters were defined for documentation as technical information useable in different locations.
 - A menu of support required for OSS desktop introduction was summarized based on support experience in the field.
- 80% of employees found motion picture images agreeable in an OSS-based video conference.
 - It was proved that OSS-based multimedia software had a practical level of competence, in spite of the generally negative image.
 - Know-how for the utilization of a video conference system was acquired.

Objectives of Introduction & Demonstration

- To demonstrate its competence in a municipality implementing centralized control of an OSS desktop by network boot

Themes

- Adoption of network boot type KNOPPIX
- Adoption of OpenOffice.org
- Utilizing an OSS desktop at facilities within the city via a high-speed, large-capacity, optical fiber wide area network

Tsukumi City, Oita

Features and Outcomes of a Shift to an OSS Desktop

- System setup simplified with centralized control from servers.
- Security levels improved with the adoption of network boot.
- Accessibility to Tsukumi City's websites improved through the utilization of OSS (Nvu etc.).
- Made available for general citizens at public halls and libraries.

Urasoe City, Okinawa

Objectives of Introduction & Demonstration

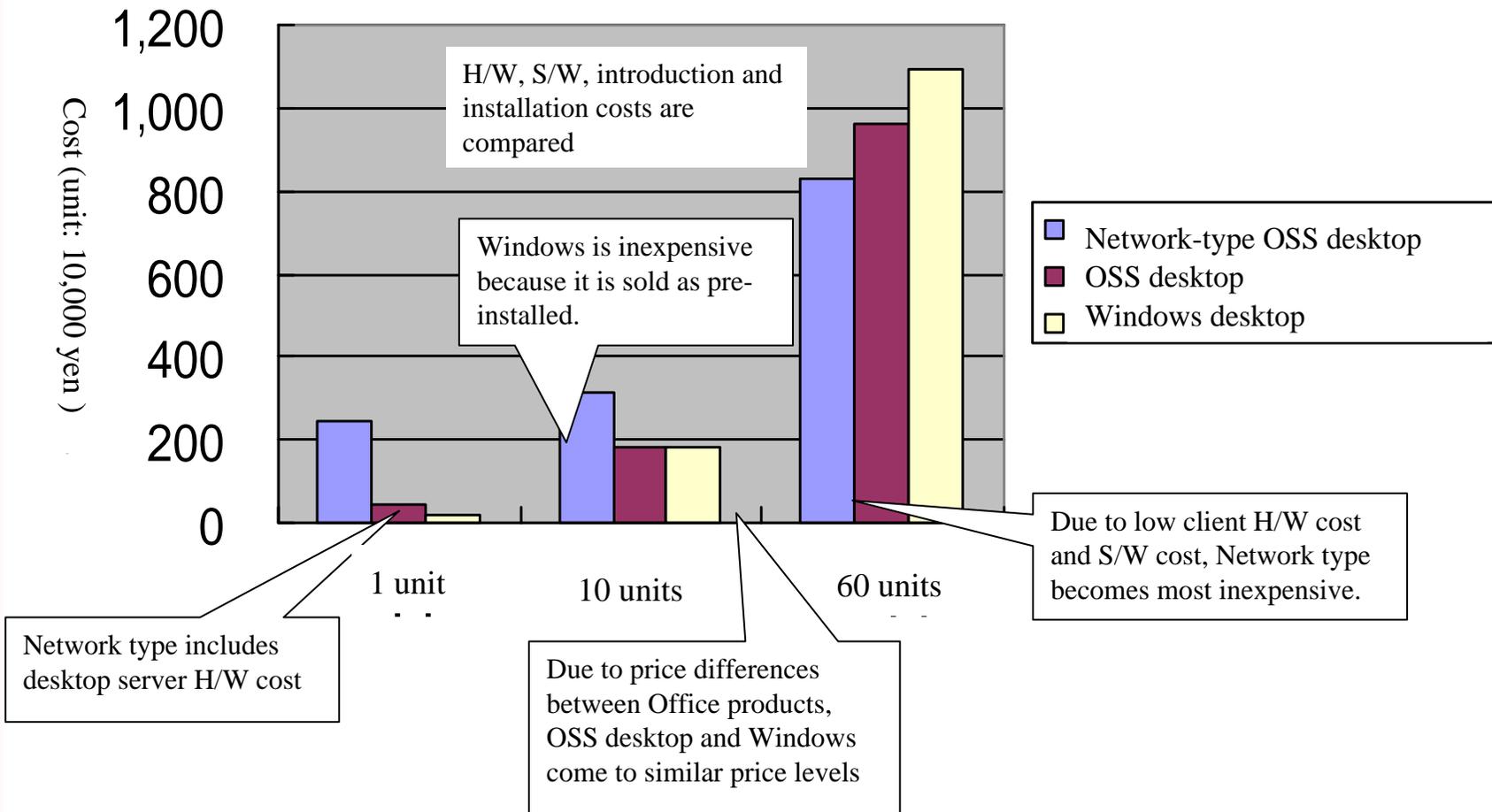
- To suppress the municipality's ever-increasing IT-related expenses.
- To connect an OSS desktop with the general business system.
- Exploitation of potential opportunities for local businesses to enter the municipality IT market.

Themes

- To verify economy and robustness with a network-type OSS desktop.
- To verify the adoptability of a non-Linux OSS desktop (Solaris10).
- To verify the feasibility of connection via Windows between an OSS desktop and the general business system.
- To show measures for local businesses to enter the market and demonstrate their feasibility.

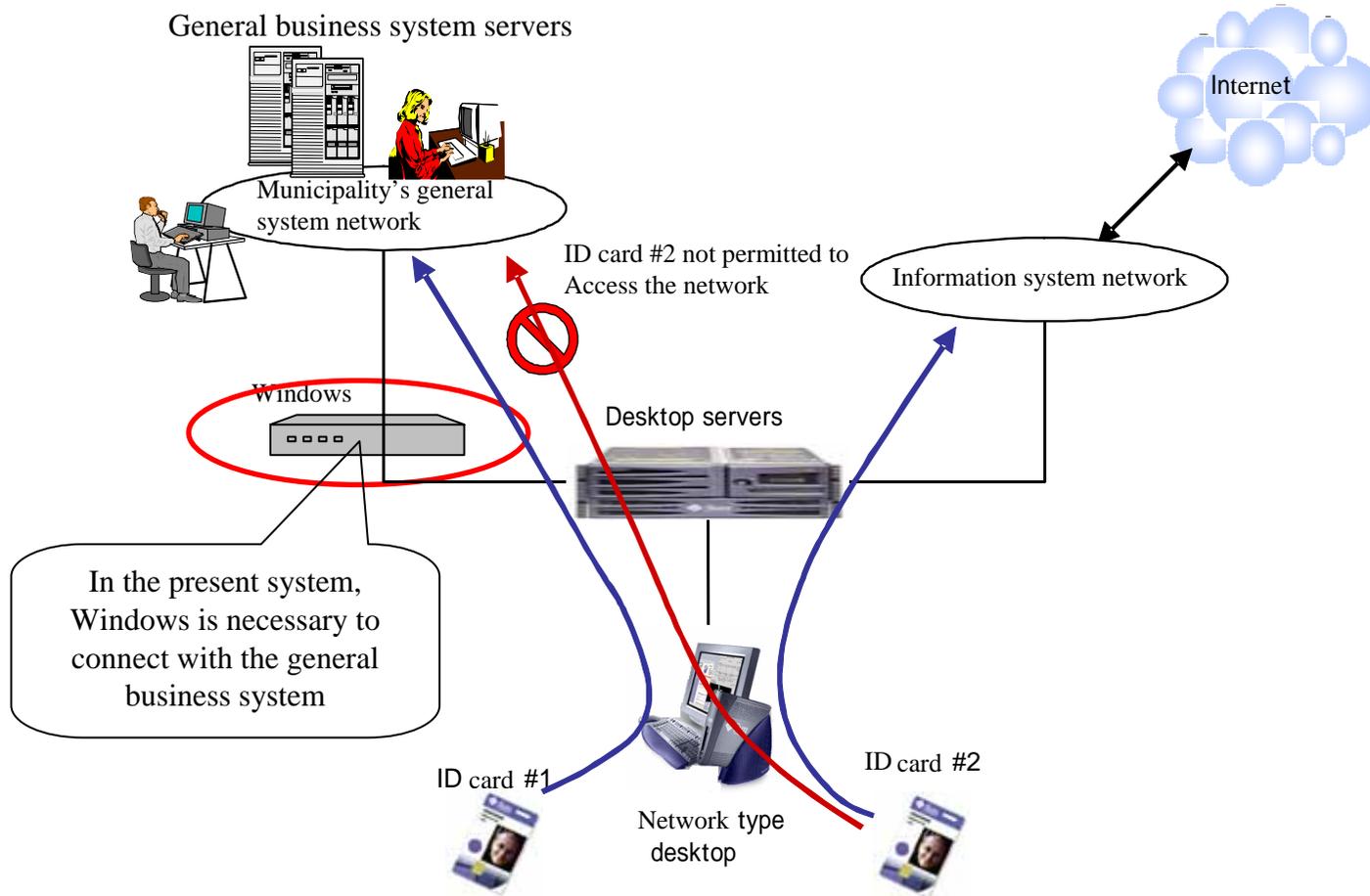
Urasoe City, Okinawa

OSS Desktop vs. Windows Desktop Cost Comparison



Urasoe City, Okinawa

Connection with the General Business System

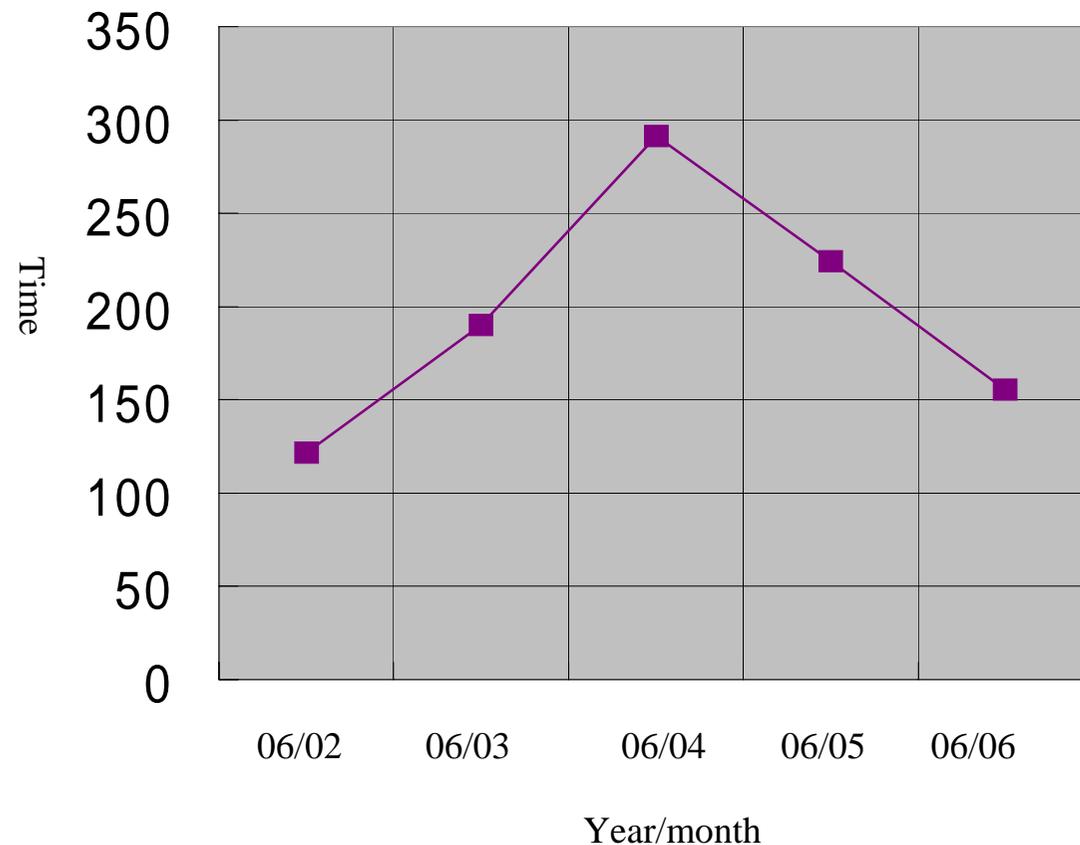


Urasoe City, Okinawa

State of Helpdesk Workload

- A helpdesk has been operated by the municipality.
- Workload increased in April due to personnel relocation.
- Workload increased slightly in March as a result of OSS desktop introduction, but it decreased later.

Monthly helpdesk workload



Urasoe City, Okinawa

Features and Outcomes of a Shift to an OSS Desktop

- Reduction in introduction cost demonstrated with a network-type desktop through which OS and applications are run on servers.
- By using Windows together, connection with the general business system and the effective utilization of existing Windows data were ensured.
- OSS utilization could open the way to multi-vendor contracts for building a system, instead of requiring a blanket contract with the dominant vendor.
 - Accumulation of know-how to help local businesses enter the market.
 - Development and test of helpdesk tools.
 - Development and test of user management tools.
- Urasoe City has decided to shift 200 PCs to OSS at its own expense.

2005 Activity Outcomes Summary

- OSS desktops are appropriate for municipalities' operations.
 - OSS Office suite and browser are in use (Ninomiya, Sapporo, Tsukumi, Urasoe)
 - 80% of employees found motion picture images agreeable in an OSS-based video conference (Sapporo)
 - Centralized control of PCs in the city hall and branches realized with a network boot OS (Tsukumi)
 - Connection between an OSS desktop and a general business system was tested (Urasoe)
- Arrangements for supporting municipalities by local businesses were satisfactory.
 - Through cooperation between a municipality's system engineers and supporting businesses, attentive support was rendered. As for technical issues, further developments to cooperate with user communities were also observed (Ninomiya)
 - Support desks organized by local businesses can serve for the purpose (Sapporo, Tsukumi, Urasoe)
 - Developed on site and immediately put in commission, thanks to their OSS-related development capability (Sapporo)
 - Suggestion of measures for local businesses to enter the market other than the support business (Urasoe)

Remaining Problems from 2005 Activity and IPA's Action



- Infrastructural systems such as for user authentication and document management lack cooperability, which makes it difficult to introduce an OSS desktop in tandem with an existing system for a shift.
- System development techniques utilizing open standards, which encourage local, small- to medium-scale IT vendors to enter the market, are desired.
- Consistent, low-cost support techniques are desired to solve contingent problems arising from OSS operation.
- Further enhancement of individual OSS functions and performance (OpenOffice.org etc.) is necessary.
- Enhancement of sophisticated operation functions such as one permitting coexistence with the existing environment is necessary for peripheral equipment including printers.
- Enhancement of font and character code management and processing capability is necessary to deal with user-defined characters and OS-specific character sets.

Municipality-level introduction & demonstration projects will be continued in 2006



Further introduction & demonstration based on these project outcomes including connection with a general business system will be considered in 2007.



Development and studies will be commissioned as part of 2006 theme development projects

2006 Activity Overview

- On the basis of problems identified in 2005 activity:
 - To construct systems etc. satisfying either or both of the following conditions and demonstrate their effectiveness through application to practical tasks performed by municipal employees.
 - **Project involving an effort to solve problems hampering OSS introduction with an eye to OSS desktop introduction on a substantial scale.**
 - **Project involving an effort to solve problems arising from the operation of an OSS desktop.**
 - To permit other municipalities to utilize outcomes from such projects and develop similar systems etc.
- 4 target municipalities were chosen out of 11 applications received through open invitation.

2006 Target Municipalities

Oita Prefecture

“Introduction & demonstration for open source software utilization in the Oita Prefectural government’s general business system”

Yamagata Prefecture

“Yamagata Prefectural government document management system introduction & demonstration experiment”

Ichikawa City, Chiba

“OSS introduction & demonstration with a public facility booking system”

Ninomiyamachi, Tochigi

“OSS desktop introduction to Ninomiyamachi, Tochigi and neighboring municipalities and development of an extensive cooperative base”

“OSS Desktop Introduction to Ninomiyamachi, Tochigi and Neighboring Municipalities and Development of an Extensive Cooperative Base” Ninomiyamachi, Tochigi - NEC Corporation



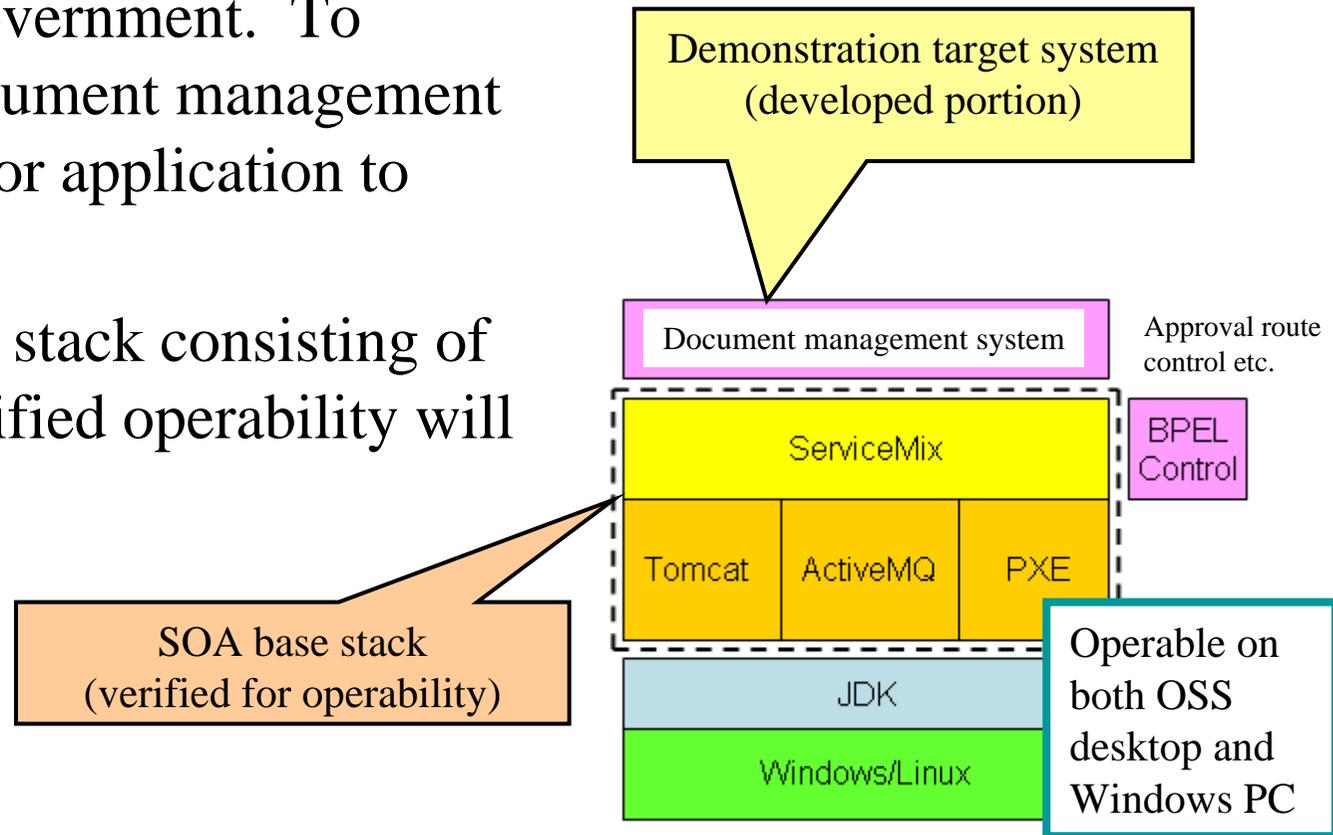
- Efforts to realize extensive area joint administrative service provision utilizing OSS to promote OSS desktop propagation and completely stop using Windows environments will be made in Ninomiyamachi, a target municipality of 2005 activity.
 - Development of a system and provision of support covering an extensive area to help neighboring municipalities introduce OSS such as OpenOffice.org etc.
 - Practice of extensive area joint administrative service provision including confidential information exchange.
 - Adoption of VBA compatible features and operation of document data conversion functions with OpenOffice.org.
 - Establishment of ODF conversion techniques for existing documents and templates and documentation of procedures as manuals.
 - Implementation of training to improve OSS utilization skills in non-document areas such as database and digital image processing.

“Yamagata Prefectural Government Document Management System Introduction & Demonstration Experiment”

Yamagata Prefecture – SRA TOHOKU, INC.



- To construct an SOA base stack combining OSS within the prefectural government. To develop a document management system on it for application to operations.
- An SOA base stack consisting of OSS with verified operability will be employed.

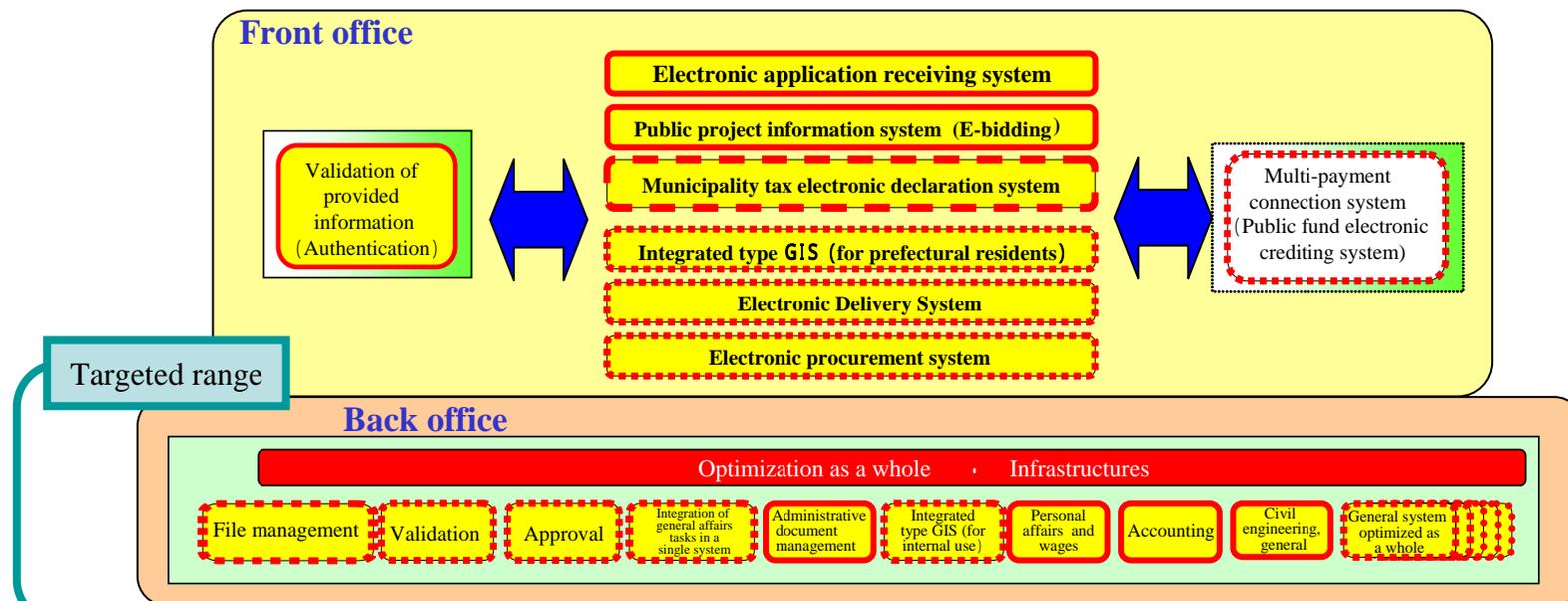


“Introduction & Demonstration for Open Source Software Utilization in Oita Prefectural Government’s General Business System”

Oita Prefecture – Institute for HyperNetwork Society



- To construct three infrastructural systems for employee authentication, electronic approval and file management with OSS for application to actual operations.
- The employee authentication system shall cover all the tasks that are performed through the existing employee portal system. The electronic approval system shall cover various report/computation systems.

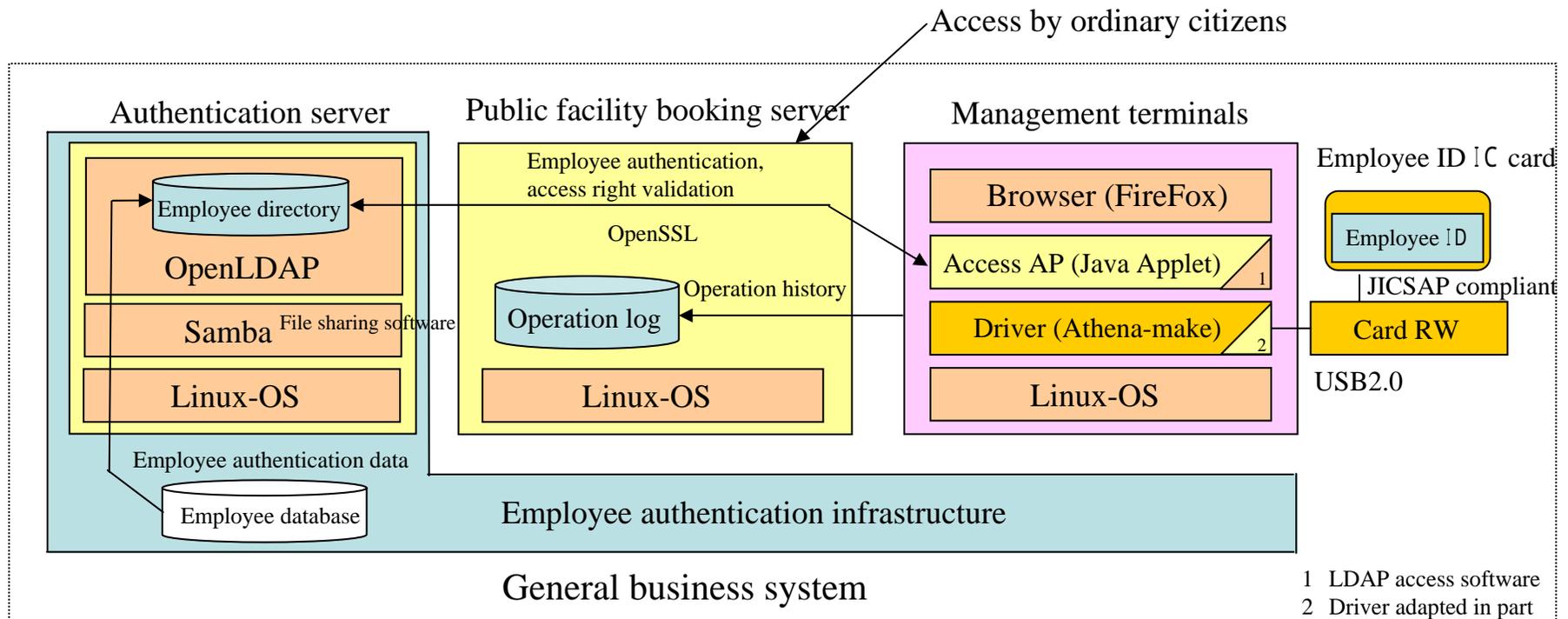


“OSS Introduction & Demonstration with a Public Facility Booking System”

Ichikawa City, Chiba – NTT PC Communications



- To construct a public facility booking system with OSS and operate it to provide service to general citizens.
- The target system is one actually in use and processing 46,000 records per year (actual result in 2005).
- To develop an applet to access an IC card reader/writer and make it available as OSS.
- Provision of ASP service to other municipalities is also planned.



Publication of Findings, Commercialization – Propagation Scheme



- Covered in detail in the 2005 activity report and other reports on project outcomes published on IPA's websites
 - A number of documents of value as reference to other municipalities and businesses are made available.
- Included in OSS iPedia as introduction case examples (underway)
- Introduced in various books and magazine articles.
 - Report on 2005 activity outcomes is covered in the December issue of “Monthly LASDEC” published by the Local Authorities Systems Development Center.
 - Book titled “Let’s Introduce Open Source Software to Municipalities! – Desktop Part” will be published by Ohmsha (shortly)
- PR activity by participating businesses (also exhibited in this session venue)
 - Turbolinux, Inc. (participating in the project in Sapporo)
 - Novell K.K (participating in the project in Ninomiyamachi)
 - Institute for HyperNetwork Society (implementing the project in Tsukumi City, Oita)