



CASE STUDY

LOGISTICS SYSTEM MAINTENANCE



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PROJECT OVERVIEW

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A leading logistics company in Japan had a vast system that needed monitoring, management, and optimization. Drawing on deep technological expertise and industry insights, Luvina Software partnered with the client to enhance operations and continuously evolve the system with new features, delivering ongoing support for over two years.

Region: Japan.

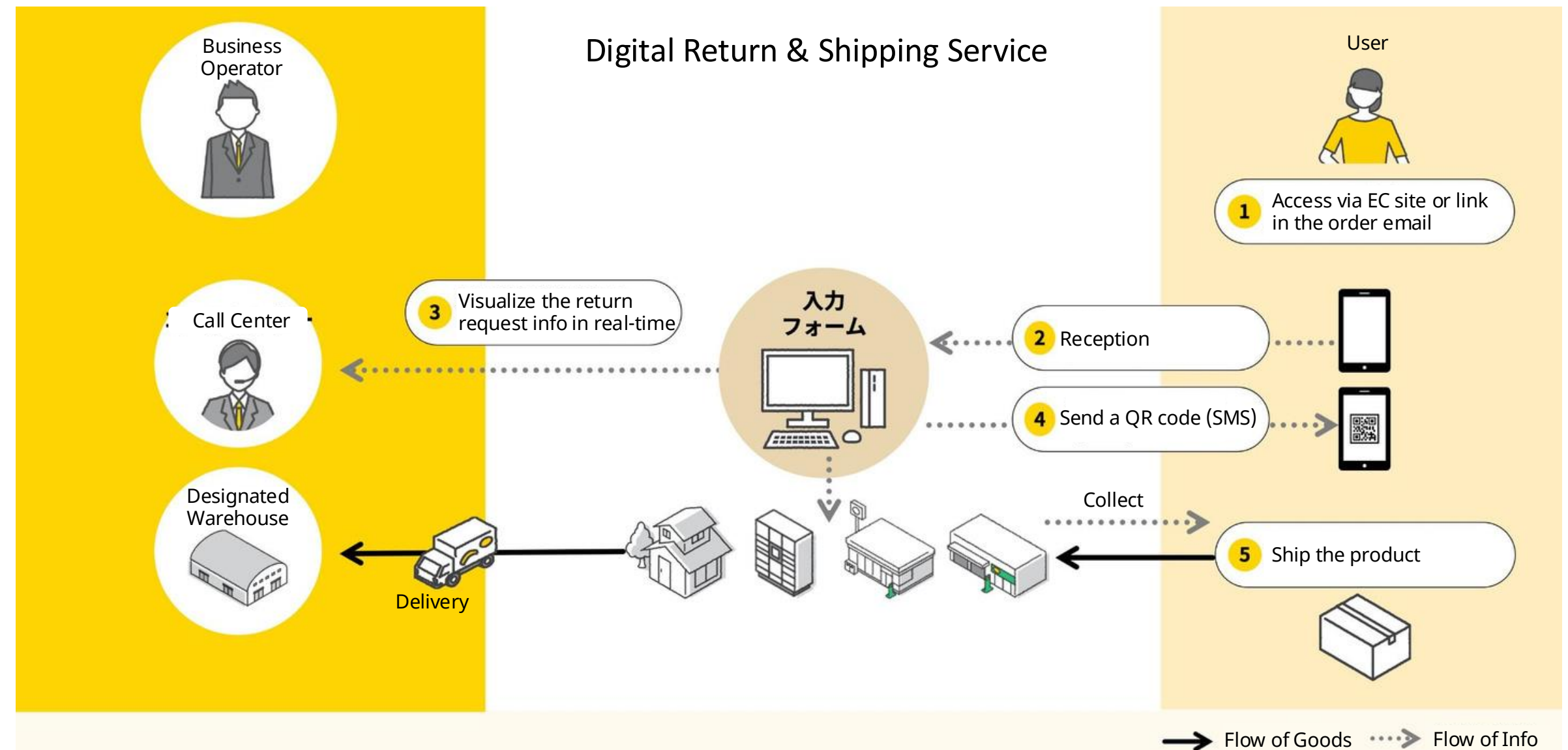
Industry: Logistics.

Duration: May 2022 - present.

Size : 80MM (PEAK 4MM)

Service: IT Managed Services

Key technology: COBOL, SHELL, DB2





PROJECT OVERVIEW

ABOUT THE CUSTOMER

Our client is one of Japan's leading logistics companies, operating over 4,000 domestic distribution centers and warehouses, with offices in 22 countries and agents in 18 more. They provide global logistics services, including sea, air, and land transportation.

Given their large-scale operations, the client had complex requirements for their logistics system:

- **Regular Maintenance:** To ensure continuous and stable operations, including software updates and security patches.
- **Issue Resolution:** Quick repairs to system errors to maintain uninterrupted service.
- **Customization:** Flexible development and system adjustments to meet new business needs or regulatory changes.

CUSTOMER'S CHALLENGES

- **Labor Shortage:** In Japan, finding experienced COBOL programmers became increasingly challenging. Many seasoned developers had retired, while younger generations no longer studied this language.
- **Complex Systems and Specialized Operations:** The client's large-scale system, combined with intricate business processes, required a maintenance team with deep technical and industry expertise.
- **Sudden Requests:** Unplanned maintenance and upgrade demands from partners could arise unexpectedly, often with tight deadlines to meet market needs or comply with new government regulations.

PROJECT OVERVIEW

LUVINA'S ADVANTAGES

- **Extensive Experience:** With over a decade of expertise in COBOL development for major Japanese banks, insurance companies, and securities firms, LUVINA has built a strong foundation in COBOL systems. Our seasoned team brings a wealth of knowledge and proven success to every project.
- **Skilled Team:** Beyond technical excellence, LUVINA's professionals are deeply familiar with Japan's logistics systems. This unique blend of technical skill and industry know-how allows us to swiftly implement, enhance, and maintain complex systems, ensuring seamless operations for our clients.

LUVINA'S STRATEGY

- **Talent Development and Training:** Focused on enhancing the existing team's COBOL expertise, LUVINA implemented specialized training programs to deepen their project knowledge, improving both technical skills and business understanding.
- **ODC Strategy:** By establishing an independent Offshore Development Center (ODC) dedicated to COBOL projects, LUVINA created a self-managed team capable of optimizing workflows and reducing dependency on the client, delivering greater efficiency and flexibility.





ACHIEVEMENT



- ✓ **Developed and Released Critical Functions**
Luvina swiftly developed and released several key functions for the system based on client's demands. (More details below).
- ✓ **Improved System Efficiency**
 - Optimized workflows, resulting in a **40% increase in operation efficiency** compared to the beginning time of the project.
 - Enhanced the system's performance, increasing **task processing speeds by up to 50%**.
- ✓ **Documented 50 Previously Undocumented Functions**
Identified and created documentation for nearly 50 system functions that previously lacked any design specifications.

ACHIEVEMENT

Develop the new service called Ku* Yu-Mail

Client's Problem

High shipping costs for thin, small packages and mail services were becoming a burden for the client.

Solution

We developed and deployed *Ku** Yu-Mail, a new mail delivery service designed to replace *Ku** DM-Bint. This service operates by having the client collect packages and send them to Japan Post for sorting and delivery. To ensure seamless operation, the system needed to synchronize order statuses between the client and Japan Post, allowing both parties to track shipments accurately.

Result

- **Cost Reduction:** Shipping costs were significantly reduced through collaboration with Japan Post.
- **Improved Delivery Efficiency:** The new service streamlined the delivery of mail and small packages, ensuring faster and more accurate delivery times.
- **Enhanced Order Tracking:** Customers can easily check their order status via the synchronized system, providing convenience and increasing trust in the client's service.

ACHIEVEMENT

Develop Tailored Gift Delivery Management and Monitoring Function

Client's Problem

According to surveys, the client's gift delivery service was rapidly growing. However, they lacked a comprehensive system to manage and monitor orders from this service. This made it difficult to track and update the status of gift packages, as well as offer promotions to customers subscribed to the service.

Solution

We developed and integrated a gift delivery management and monitoring function for the client. This project synchronized the gift delivery system with the Online KiKan system, enabling accurate and timely tracking of gift packages. The new system also manages special promotions for customers subscribing to the gift delivery service.

Result

Improved Management Efficiency:

Clients can easily track and monitor the gift delivery service, ensuring precise and timely updates on the status of gift packages.

Enhanced Customer Service:

The new system provides unique promotions to customers subscribing to the service, enhancing customer experience and satisfaction.

Service Growth:

The solution empowered the client to expand their gift delivery service, meeting the increasing market demand.



ACHIEVEMENT

Development of a Locker-Based Pickup System at Convenience Stores

Client's Problem

Recently, there has been a growing trend among customers wanting to pick up their packages from lockers at convenience stores. However, our client lacked a unified system to collaborate with these lockers, which made it difficult to offer a convenient pickup service to their customers.

Solution

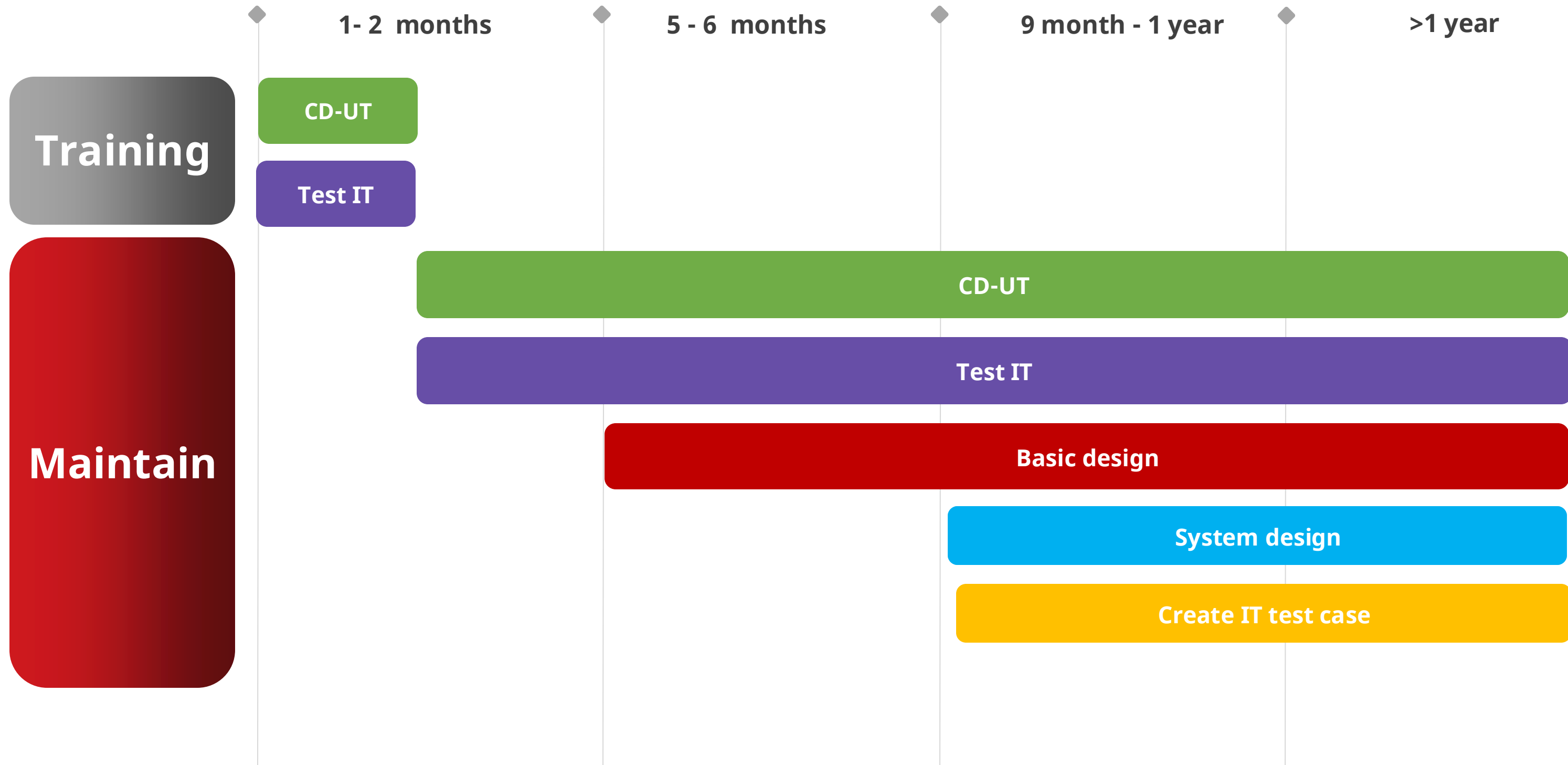
We developed and synchronized the client's system with convenience stores to facilitate deliveries through the locker system. The new system allows them to update package delivery statuses and offer locker-based pickup options at convenience stores for their users.

Result

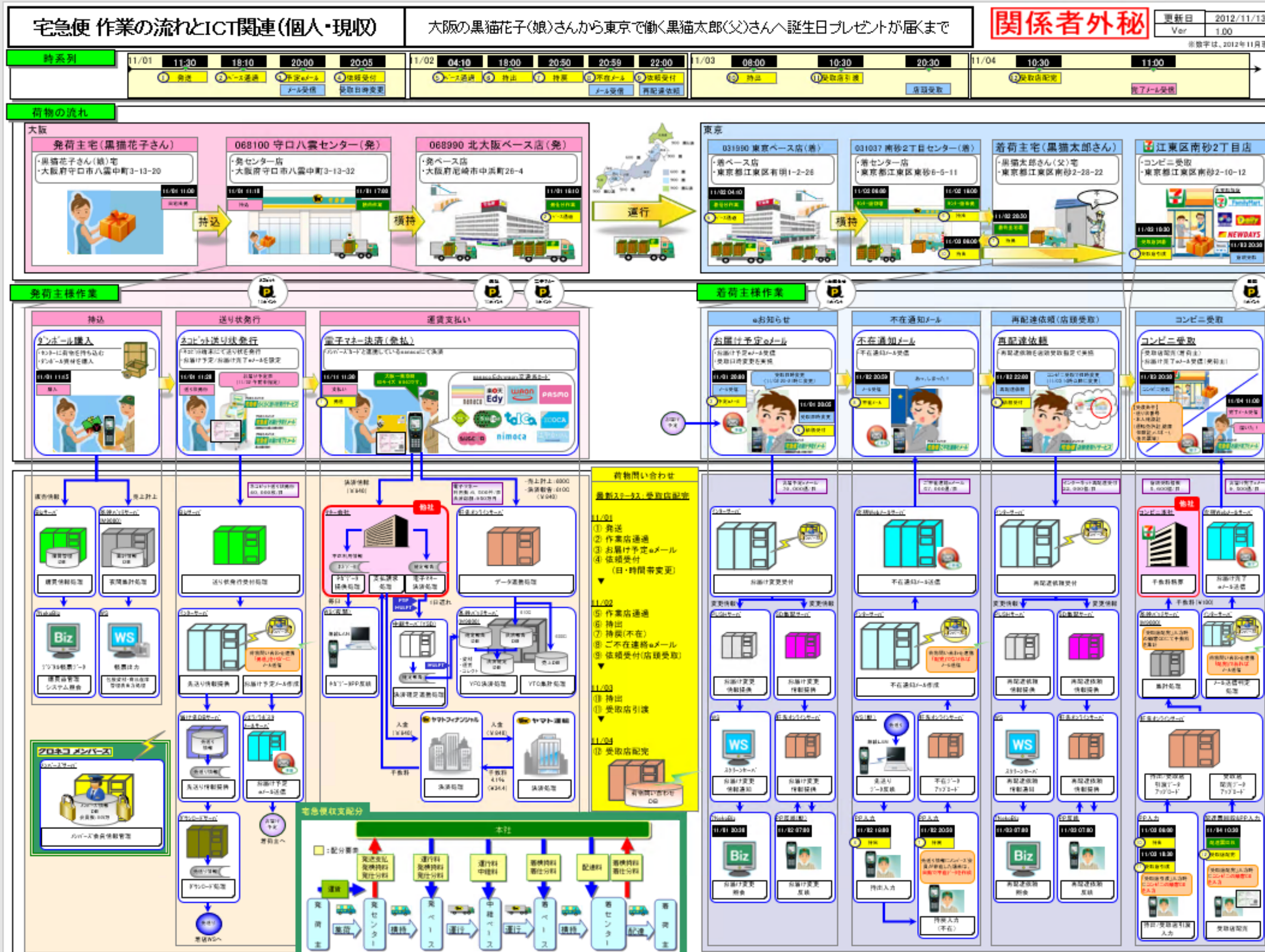
- 1 Convenient Pickup Options:** Customers can now register their pickup locations at combini lockers, offering more flexibility and convenience for receiving their packages.
- 2 Improved Delivery Efficiency:** The new service enhanced the delivery of small packages and letters, ensuring fast and accurate delivery time.
- 3 Expanded Collaboration and Service Growth:** The system's synchronization with combini enables the client to expand delivery channels, foster closer collaboration with convenience stores, and effectively grow their delivery service.



MILESTONE



OVERVIEW KIẾN TRÚC DỰ ÁN



KEY FEATURE

Tracking Order Status

- Allow users to tracking the status of their order using tracking numbers, sender, or recipient information.
- Users can check the current location of their packages, shipping status, estimated delivery time, and other relevant updates.

Order Status Update

- Couriers can update the status of orders based on the real-time delivery progress.
- Couriers can update order status such as picked up, in transit, delivered or failed delivery.

Schedule Pick Up and Delivery

- Creates pickup and delivery schedules for each courier.
- The system automatically generates schedules based on the orders that need to be picked up and delivered within assigned areas. Schedules can be optimized to minimize time and transportation costs.

Order Information Update

- Allow updating key order details such as delivery address and delivery time.
- Customers and couriers can modify the order information to ensure timely and accurate delivery.

Back-end

COBOL



**IBM WebSphere
MQ**

HULFT

Infrastructure



THANK YOU For Your Interest

Contact us for more information at:

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