

Undertakings of LCM Services for Financial Institutions

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Highly convenient services for bank customers and attractive financial products are becoming the indicators for gauging customer satisfaction at financial institutions. Financial institutions are furthermore required to thoroughly implement compliance and respond to the needs of impartiality in their procedures without delay, as changes and reforms are implemented in the legal system. Enhancement of their cooperative framework with system vendors and implementation of efficient and strategic IT investments are sure to become matters of concern for financial institutions.

OKI solves such concerns by providing systems for fulfilling efficient and strategic IT investments of financial institutions as well as processes encompassing planning and reviewing with the implementation and operation of service infrastructures as a one stop solution. The Life Cycle Management (LCM) services for financial institutions undertaken by OKI not only cover the conventional management of the life cycles of products and systems but include services that also consider the life cycles of plans, operations and maintenance for the relevant work operations and systems of financial institutions.

Concerns of IT Departments at Financial Institutions

IT departments are expected to draft plans, build, implement and sustain in a stable manner, flexible IT infrastructures that are strategic to and supportive of corporate management. Fulfillment of the following three items is considered to be essential for satisfying such expectations:

- Carefully planned and efficient IT investments.
- Management to sustain highly reliable operations.
- Maintenance and improved service quality.

High expenses and personnel resources, however, are believed to be expended by IT departments for the management to implement systems or to maintain systems and products in operation.

Cooperative use and cooperative operations involving system and product vendors are becoming main stream with regards to a lot of backbone and mission critical systems in regional financial institutions. This trend is considered to realize the three items described above, primarily with regards to management for the maintenance of backbone and mission critical systems at financial institutions. It is, however, a fact that not a lot

has been reduced as far as the burden goes in regards to management for the maintenance of subsystem groups in the peripheral of backbone and mission critical systems, as well as channel systems that are closer to users, such as those at branches, contact centers or ATMs.

Burden of management for operation and maintenance of systems

Let us consider an example of many server systems implemented in phases for individual corporate organizations. In such instances, system modification work for varying operating procedures (turning on and off, monitoring, backing up, etc.) will be required and consideration must be given to the updating of the programs in place for the implemented hardware and software.

The work required for system modifications relating to management for the operation and maintenance of server systems is an identical procedure for any financial institution, regardless of their size. Although financial institutions are aiming to implement a smooth transition between server systems, as systems tend to become larger in scale, enormous sums are considered to be required as an investment for the modification work of their systems. It is for this reason that implemented action at financial institutions merely consists of more or less sustaining the current status by appointing full-time administrators and other persons in charge to implement system transitions.

Changes in the functions and operations are frequently implemented at branch terminals and ATMs in order to improve convenience for bank customers. Such action must be taken in short intervals in order to sustain customer convenience. Modification and management work for systems, as well as accurate implementation and validation work in collaboration with vendors, are also essential. Furthermore, dedicated personnel who have experience and know-how are needed by financial institutions themselves in order to respond to changes. The work load, costs, securing of personnel and maintaining technical levels at IT departments are all becoming major issues for financial institutions.

Outline of undertakings for services

LCM services for financial institutions provide partial as well as comprehensive services ranging from planning, operating and maintaining the entire life cycle of the relevant work operations and systems at financial

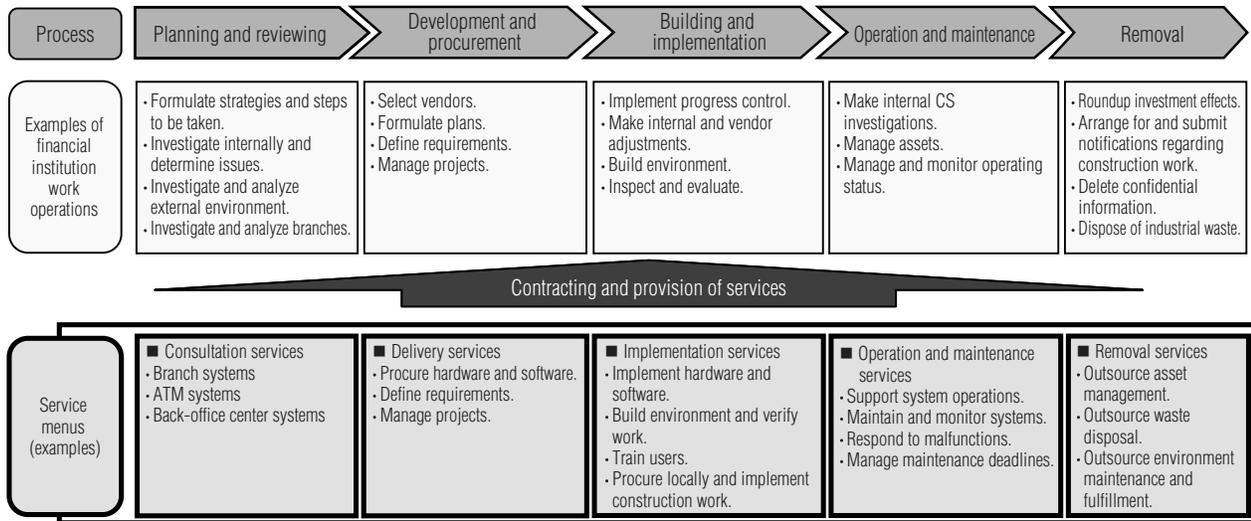


Fig. 1 Overall outline of LCM services for financial institutions

institutions. In the past OKI was contracted to provide portions of work required from development to implementation and once operations started, OKI provided maintenance services within the scope of the contract. Management of the entire system for the life cycle of systems, including system planning, however, was left entirely up to the financial institutions. The LCM services offered by OKI provided an entire spectrum of services relevant to the systems, including planning in addition to reviewing, developing, procuring, building, implementing, as well as operations, maintenance and removals. Work operations were contracted for each of these processes, the necessary personnel were secured, technology was kept up to date and support was provided to acquire new technologies. OKI supported IT departments at financial institutions for a medium to long term in order to enable financial institutions to concentrate on their main profession (Fig.1).

The services supporting the entire work operation through each individual process were put into effect based on an agreement reached according to the following three items:

- Provide and substantiate service menus.
- Clarify the service details according to the application of the Service Level Agreement (SLA), as well as maintain and improve service quality.
- Formulate a model for providing services in a flexible and phased manner.

Aim of services and expected effects

Outsourcing work operations from an IT department to an affiliated company within its own corporate group is a common practice, carried out for the purpose of improving the work operation efficiency and reducing the burden. Outsourced work to system vendors, however, is limited to merely a portion of the work operations performed by financial institutions. System vendors carrying out outsourced work operations subject to

inspection by competent government authorities, furthermore, must be managed and supervised by the financial institutions themselves. System vendors, therefore, must offer services that appeal to financial institutions with regards to outsourced system risks and system management costs.

LCM services for financial institutions undertaken by OKI are aimed at providing services that substantiate the following items, offering high reliability at affordable prices.

Improved efficiency of IT investments

- Inhibit temporary increases for investments relating to the implementation of IT by outsourcing the services for development and procurement processes.
- Provide common or cooperative services (operation, maintenance and functional improvements) to financial institutions delivering services to their bank customers, while taking advantage of the benefits arising from the scale of operations and reducing the load of investments on the part of individual financial institutions.
- Minutely detail and equalize investment plans through continuous contracting for a medium to long term.

Reduced operational risks

- Reduce the burden and risks relating to operational and maintenance management by outsourcing the services for operational and maintenance processes.
- Deliver consistent and highly managed services by providing a one-stop service from OKI, with full support for the entire range of processes.

Improved service quality

- Seek to maintain and improve quality by applying SLA through definitions and contracts relating to service levels.

The effects expected by financial institutions are sorted and represented on **Table 1** (following page).

Table 1 Expected effects

Expected effects		Details
Improved efficiency of IT investments		<ul style="list-style-type: none"> ■ Equalization of investments and easier formulation of plans. ■ Reduction of personnel costs. ■ Reduction of system expenditure (sharing and collaborative responses).
Reduced operating risks	Reduced burden for maintaining systems	<ul style="list-style-type: none"> ■ Reduction of load on system management. ■ Reduction of load arising from updating of systems and products.
	Reduced burden on operations	<ul style="list-style-type: none"> ■ Outsourced system operations and easier formulation of operating plans. ■ Provision of training for users and reduction of burden on interaction with customers.
Improved service quality		<ul style="list-style-type: none"> ■ Maintenance and improved quality for services subject to outsourcing. ■ Improvement of services intended for stable system operations.
Support based on expert knowledge		<ul style="list-style-type: none"> ■ Improved efficiency for plan consideration processes through consultation.

Undertakings for setting up service menus

The set up and substantiated service menus for services have been continuously provided by OKI (Table 2). Service menus are updated according to the needs of financial institutions and every time a service organization is created. Updated service menus are applicable to partial combinations in individual processes (partial services), as well as for one-stop services when an entire spectrum of processes is outsourced to OKI.

One of the characteristics is that the service details of the work operations present a larger burden on the IT departments of financial institutions, such as the daily monitoring and management of operational systems, which is first to be substantiated in service menus, particularly for the operation and maintenance processes of system operations and maintenance management.

Table 2 Service menus

Process	Service menu	Details	
Planning and review	Consultation services	Branch systems, ATM systems, back-office center systems, network systems. Security, consultation for coordinated linkup of channels, support for formulation of IT strategies.	
Development and procurement	Delivery services	Formulation of procurement plans, selection, securing and purchasing of equipment.	
	Requirements defining services	Consideration for service functions and methods for practical implementation.	
	Project management	Provision of support for general management of building and transferring systems. Participation in examinations of plans and shipments.	
Building and implementation	Product implementation	From implementation of hardware and software through to verification of operations in actual operating environments.	
	Implementation services	Support for testing, support for personnel training and preparation of operating manuals. Support for installations and transfers, equipment management and provision of help desk services.	
Operation and maintenance	Support for system operations	Formulation of plans for system operations and support for formulating operational designs. Support for answering and resolving problems. Training for equipment manipulations and operations, support for training administrators.	
	System maintenance	Investigations and verifications for influences from external environments. Verification of operations when disasters and malfunctions occur.	
	System checks	Checks for resources and performances.	
	System administration	Equipment management, license management and IT information management.	
	System monitoring	System monitoring and operating schedule management.	
	System operation analysis and evaluation	System operating status verification, analysis and provisional estimates of effects.	
	System security	Preparation of guidelines and policies.	
	Responses for malfunctions	Initial notifications and primary responses, as well as restoration responses.	
	Removal	Asset management	Asset management and industrial waste disposal.
		Confidential information processing	Deletion of confidential information, etc.

Application of SLA and SLM

An SLA and SLM (Service Level Management) determine the specific contextual details of the LCM

services. The SLA clarifies details of the services, specifies the agreements reached on the service quality value between the party requesting the services (customers) and the party providing the services in advance, wherein the service provider declares a commitment (guarantee) as to the details of the services provided.

The details and quality of services described in the SLA are the commitments defined in terms of “what”, “by when” and “how”. If system monitoring is included in the process menu for the operation and maintenance of LCM services for financial institutions, when the commitment is “to contact the corporate organization responsible for managing equipment within five minutes by telephone when abnormalities are detected with equipment during monitoring”, then the relevant items in the SLA will be as follows:

- Service description (application of service):
Detect equipment abnormality during monitoring.
- Service description (responsive action):
Contact by telephone the corporate organization in charge of managing equipment.
- Service quality value:
Service within five minutes.

The important issue with regards to commitments made in an SLA is to avoid qualitative expressions. This is because doing so may invite disagreements with regards to an interpretation and thus it is necessary to express service quality in terms of time or numbers that can be shown as quantitative data.

Furthermore, service levels of the LCM services can be sustained or improved by imposing penalties when the service provider significantly fails to meet the service quality level, while offering incentives when favorable quality levels are attained. Such penalties and incentives must be agreed upon when the agreements on the SLA are reached.

Rules for measuring the values must also be established at the time when service quality values are set forth in the SLA. This management of rules is the SLM. The service quality values of SLA are monitored in accordance with established rules to ensure that service quality is sustained at all times. The responses to be implemented and the methods for such responses when service quality levels stipulated by the SLA could not be attained or the management of rules for sustaining the SLA are also important functions of the SLM. Furthermore, the SLM clarifies the ownership of responsibility with regards to the implementation of services and the responsibility for the operation of the SLA (Fig. 2).

An example for monitoring the system described above guarantees preservation of the service quality in accordance with the SLA but the role of the SLM is to clarify the cause and to implement corrective action if the amount of time required exceeds five minutes. The causes and corrective action must be added to the SLA after an agreement is reached with the party requesting the services.

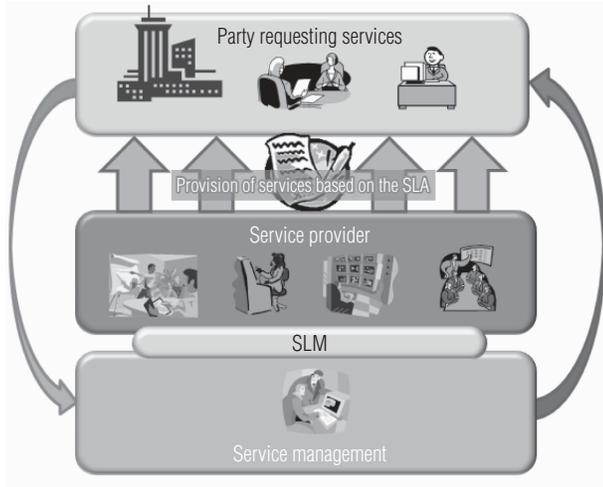


Fig. 2 Application of SLA and SLM

Activities to implement SLA and SLM started domestically in Japan a number of years ago, but they are not being fully utilized as common services. OKI intends to reference concepts being promoted by the guidelines for the SLA published by the Japan Electronics and Information Technology Industries Association (JEITA), to clarify the details on the context of services and service quality, as well as the value for service users.

Details of the services provided in the planning process and procurement process of LCM services fluctuate greatly due to external influences, such as the requirements of financial institutions and market environments. This is one aspect that makes it difficult to reach agreements on service quality, which are rooted to the concepts of the SLA. It is for this reason that the application of the SLA and SLM for LCM services will primarily be in the commitments for operation and maintenance processes. LCM services offered by OKI reference SLA and SLM and reflect reviews of service menus for planning and procurement processes in order to improve service quality.

Future activities and issues

The phased implementation of LCM services for financial institutions has already started. Furthermore, OKI is providing these services by taking advantage of the available strengths in the respective fields of the affiliated companies in the OKI Group. As mentioned at the beginning of this paper, activities to improve bank customer satisfaction by financial institutions will become more and more enhanced and substantiated. We believe that through the enhancement of a cooperative framework with system vendors, LCM services that make it possible to implement IT investments in an efficient and strategic manner will become a major contributor in supporting the management of financial institutions from a cost reduction and service improvement aspect. We intend to expand the scope of services offered by LCM services as well as substantiate and segment service systems and menus.

Authors

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