

# SAP Global LCM Services to Realize Global Operation and Maintenance

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Recently, new technologies and services are being applied to enterprise resource planning (ERP) for the manufacturing and distribution industries at an increasing speed. SAP's ERP (hereafter, simply SAP) is a backbone application providing solutions so that customers can efficiently and promptly respond to changes in global expansion and digital transformation. Fujitsu works in cooperation with SAP on a global scale to provide "SAP services" that assist customers with the application of new technologies and services in the individual phases of their introduction of SAP, from planning to operation and maintenance. Of all the SAP services, this paper focuses on operation and maintenance. First, it outlines the "SAP Global LCM Services" provided for operation and maintenance and presents application examples of offerings of the services. It also describes responses to new issues related to operation and maintenance that have emerged from the deployment of services.

## 1. Introduction

Recently, customers in the manufacturing and distribution industries are applying new technologies and services related to enterprise resource planning (ERP) at an increasing speed due to digital transformation as well as globalization. SAP corporation's ERP (hereafter, simply SAP), which is a representative ERP product, is a backbone application providing solutions so that customers can efficiently and promptly respond to these changes.

Fujitsu works in cooperation with SAP corporation on a global scale to provide "SAP services" that assist customers with the application of new technologies and services in the individual phases of their introduction of SAP, from planning to operation and maintenance. Of those, customers have made the following requests in relation to operation and maintenance:

- 1) Breakaway from a site-by-site operation and maintenance model for outside Japan to realize stable operation and maintenance while exercising governance from Japan<sup>1)</sup>
- 2) Realization of an operation and maintenance model that minimizes the impact of human resource mobility on overseas sites

In order to achieve these, Fujitsu established

Global Delivery Centers (GDCs), which accumulate know-how about the design, introduction, and operation and maintenance of SAP solutions, at overseas sites. GDCs are not simple offshore sites but organizations with functions of providing high-quality services. To enable GDCs to link and connect between sites and projects, provide customers with high-quality services in short periods of time, and apply them across multiple projects, we have developed the concept of the "Solution Hub." Under this concept, we provide "SAP Global LCM Services" that realize operation and maintenance of overseas sites from Japan.

This paper presents the application of offerings provided within the SAP Global LCM Services by giving examples of a customer. It also describes new issues that have emerged after application of the services and measures for dealing with them.

## 2. Outline of SAP Global LCM Services

As Fujitsu's SAP services, we provide services in the field of SAP-related technologies (network, cloud, OS,DB and SAP) in all phases of utilization of SAP (planning/design, development/introduction, operation and maintenance, and upgrade). The SAP services also cover a wide range to include the business field, such

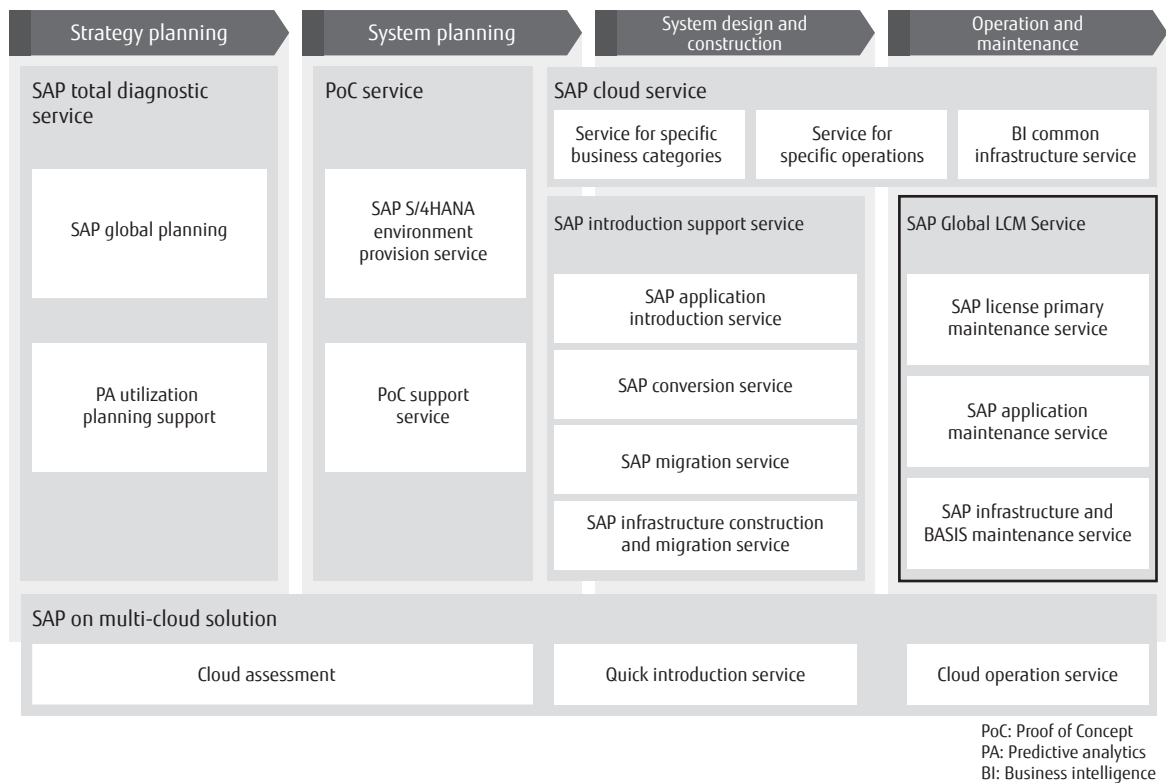


Figure 1  
Fujitsu's SAP services.

as assistance with ICT strategy planning by consulting and improvement proposals. Of these, the SAP Global LCM Services provide the following services, including the technology field and assistance with ICT strategy planning in the operation and maintenance phase (Figure 1).<sup>2)</sup>

## 2.1 SAP Global LCM Services

- 1) SAP License Primary Maintenance Service  
Support service to respond to failure of the SAP standard modules purchased
- 2) SAP Application Maintenance Service  
Service to respond to questions, failures, specification changes, and requests for advice about operation in relation to SAP applications
- 3) SAP Infrastructure and BASIS Maintenance Service  
Service to provide system maintenance in the area of infrastructure and BASIS, as well as handling of various tasks generated in the system infrastructure (such as failure response, monitoring, transport, and patch application)

## 2.2 SAP Global LCM Offerings

The SAP Global LCM offerings provides the offerings shown in Figure 2. The following describes the features of the SAP Global LCM Service to solve issues.

- 1) Cross-organizational management  
When different sites have different systems and information assets causing ICT governance to be ineffective, the Global Service manager in Japan provides integrated control globally.
- 2) Problem solving and solution provision  
When the specifics of operation and maintenance work are blackboxed and the actual conditions are not clear, standardized operation and maintenance processes are used for stable operation of the business systems.
- 3) Improvement proposal and modernization  
When the operation and maintenance costs increase to hinder proactive ICT implementation, the efficiency of operation costs is improved through the centralized management of systems for each site and the improvement of operation and systems.

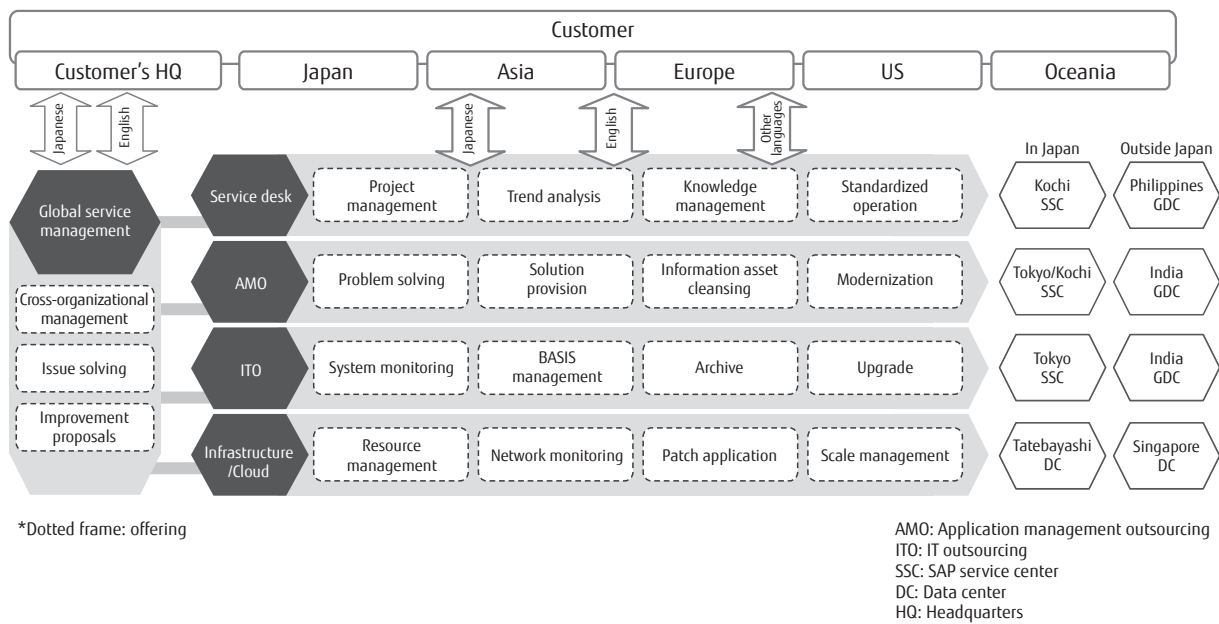


Figure 2 SAP Global LCM offerings.

The following section presents examples of offerings applied for a customer who introduced the SAP Global LCM Service.

### 3. Application examples of offerings

This section presents examples of offerings applied for a customer, a leading company in the distribution industry that uses the SAP Global LCM Service, and describes how to solve the issues before its introduction and what effects were achieved.

#### 3.1 Issues

This customer runs its business globally mainly in retail. One major challenge was how stable operation and maintenance could be provided to individual overseas sites while carrying out additional SAP development to keep up with changes in consumer needs. In this situation, we worked together with the customer to solve issues by using offerings of the SAP Global LCM Service.

- 1) Application- and infrastructure-specific operation and maintenance due to involvement of multiple vendor maintenance

Multiple operation and maintenance vendors are involved, and operation and maintenance are carried out on different sites for Japan and outside Japan.

Accordingly, operation and maintenance support encompassing all applications and infrastructures is not achieved.

- 2) Unstable system operation due to lack of permanent solutions

If a failure occurs, only an investigation of the direct cause and a temporary solution are provided, and no permanent measures are taken. Recurrence of the same event requires repeated handling.

- 3) Cost increase resulting from development rework  
 Rework occurs during the user (SAP user) acceptance test after development, resulting in delays in the finalization of specifications and the development.

#### 3.2 Solutions and their effects

We then continued to take measures after the introduction of the SAP Global LCM Service. The following describes the solutions and their effects.

- 1) Prompt investigation of causes encompassing applications and infrastructures

We decided to have the Global Service Manager in Japan, or the service administrator, use a checklist encompassing both applications and infrastructures to perform checks. We also eliminated communication loss by checking on progress through web conferencing. This has allowed problem solving in terms of both

applications and infrastructures.

- 2) Steady fundamental solutions by cause analysis processes

We carried out processes including an investigation of the direct cause, investigation of the root cause, a temporary solution, and a permanent solution to reliably resolve the failure. This allowed a permanent solution to be implemented to prevent recurrences and led to the achievement of zero occurrences of the same event in FY2017.

- 3) Ensured delivery date and quality in development

We measured key performance indicators (KPIs) every month to make the performance visible to the user (SAP user) and promptly dealt with problems that occurred. This enabled us to move ahead with smooth development with the KPIs observed and the rate of delivery date met exceeded 95%. The criterion of re-work in acceptance testing to ensure quality (one case/month or less) was also met.

#### 4. Dealing with new issues in global operation and maintenance

At overseas sites, human resource mobility such as job switches has caused new issues as shown below.

#### 4.1 Issues

- 1) Concentration of work on specific members

Work is often concentrated on specific competent members and workload leveling is not implemented.

- 2) Difficulty in maintaining and improving member motivation

Provision of work and functions in line with the career path desired by individuals is not adequate, which leads to the inability to maintain motivation.

This causes problems such as handling ticket for customer and delayed delivery in development, to which the customer's headquarters in Japan needs to respond. This affects normal operations and generates cost burdens.

#### 4.2 Solutions

To address these issues, Fujitsu is implementing an enhancement of operation management internally that makes use of a service management tool called TRIOLE for ServiceNow (TfsNow).<sup>note)</sup> The following

note) Solution with service management templates developed by Fujitsu as a service management infrastructure TRIOLE for Services (Tfs) built on an ITSM tool offered by ServiceNow as software as a service (SaaS).

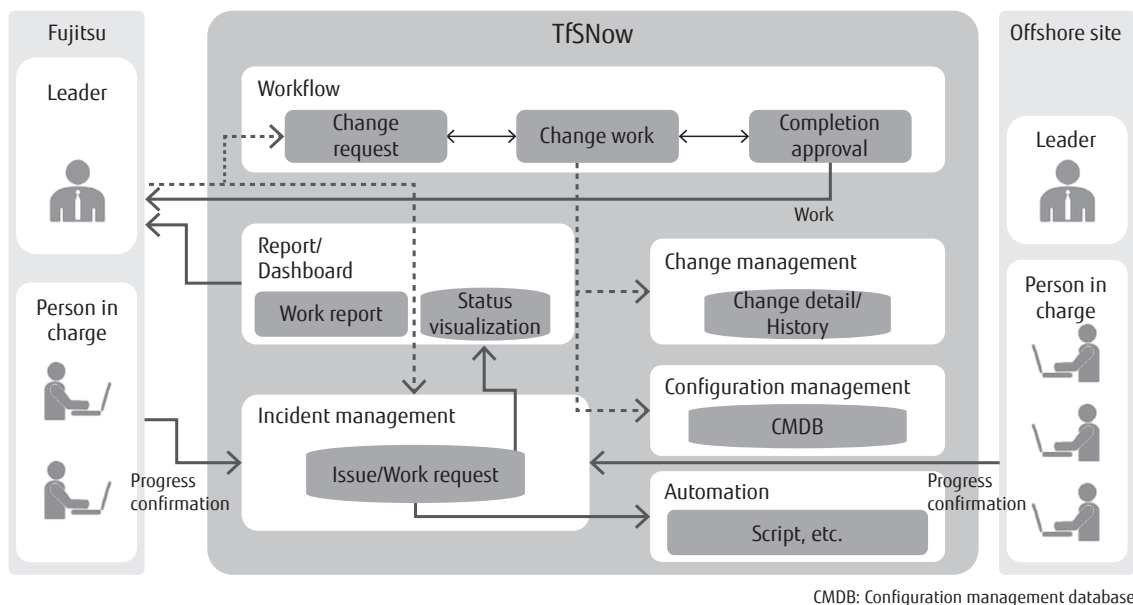


Figure 3 Visualization of management for multi-location work.

covers the status of its verification.

1) Implementation of task detailing and task assignment functions

We implemented in TFSNow a function for task detailing (registration of tasks of the persons in charge) and progress management that can be used even for multi-location work at offshore site. This function allows for the assignment of work to other members, thereby eliminating overload on specific members (Figure 3).

TFSNow has been provided with the capability for detailing that allows tasks to be managed in a work breakdown structure (WBS) and for visualizing progress in Gantt charts. In addition, the logging function for management of work history has been implemented so that tasks are assigned evenly among persons in charge.

As a result of verification, TFSNow enabled to check progress on a daily basis, as compared with the weekly basis in the past, indicating improved work breakdown point of progress management. This allows for identification of who is dealing with a task and in turn the real load on the person in charge. Load sharing has now been made possible by assigning work to other members before the loads on specific members increase. In addition, the logging function of TFSNow allows management of work quality (adequacy of person-hours for work) based on the actual person-hours for work and work evidence for each task.

2) Member change between construction and operation projects

TFSNow can be used to seamlessly link between construction and operation to implement member changes between projects. The following describes the effects assumed for individual persons in charge.

- Project workers on overseas sites  
Awareness can be gained of the next specific work and preferences can be given on the work and projects that suits a person's career path. This leads to maintaining and improving motivation and in turn the stabilization of work quality.
- Project administrator and manager of headquarters in Japan

TFSNow provides results of the previous projects so that they can be objectively checked. This allows advance detection of quality deterioration and work performance degradation, which are the biggest risks

with member changes, and measures can be taken to ensure quality of the entire project.

## 5. Conclusion

This paper presented the SAP Global LCM Services that support "global integrated control," "stable operation," and "improvement of operation cost efficiency" as an operation and maintenance model with governance exercised by introduction of the SAP system. It also described application examples of offerings of this service and new issues that emerged from the deployment of services.

Currently, we are verifying through internal implementation measures to eliminate additional issues arising from human resource mobility in global operation and maintenance. In the future, we intend to continue to offer products that meet customer needs based on the Solution Hub, an internal concept developed by Fujitsu.

## References

- 1) Japan Users Association of Information System: 23th Corporate IT Trends Survey 2017 (FY2016 Survey). (in Japanese) pp. 65–70, 2017.
- 2) Fujitsu: SAP Solutions (in Japanese). <http://www.fujitsu.com/jp/services/application-services/enterprise-applications/sap/services/index.html>



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