

SaaS-Based ERP “EXPLANNER for SaaS” to Support the Growth of Enterprises

OIKAWA Noriko

Abstract

The evolution of cloud technology has led to a rapid expansion of the use of the cloud in enterprise systems. SaaS model services have previously been used in the non-mission critical domain such as in groupware. However, they are now expected to spread rapidly as the adopted model of enterprise mission critical systems.

NEC has released “EXPLANNER for SaaS” by leading its competitors in developing high security and convenient administrative systems offering low cost and high speed that are required to support enterprises. This paper introduces the innovative approach of NEC that is expected to change the focus of enterprise mission critical systems in the future.

Keywords

enterprise mission critical system, SaaS, ERP, business standardization method, results-based billing model

1. Introduction

The evolution of cloud technology has led to a rapid expansion in the use of the cloud in enterprise systems and many enterprises are now seriously studying the introduction of SaaS (Software as a Service) that is the representative model for the use of the cloud. In this paper, we introduce our approach taken with “EXPLANNER for SaaS,” a SaaS type ERP (Enterprise Resource Planning) tool that provides users with low cost, high speed and advanced administration services by exploding the accepted myth that SaaS is not suitable for mission critical systems.

2. Cloud Provision Models and SaaS-Based Services

The cloud-oriented service platform solutions of NEC classify the mode of cloud provision into the three models; “customized,” “consortium center” and “SaaS.” Among these, the SaaS model is positioned as a tool for providing small and medium enterprise customers with standardized shared services offering high speed and low cost. As the term shared services implies, most of the traditional applications of SaaS have hitherto been providing systems for businesses featuring a high measure of shared functions that do not vary between enterprises. However, this trend is changing as can be seen with the

increased need for and the spread of SaaS, as identified from user questionnaires (Fig. 1).

SaaS is a very attractive service for those customers who want higher speed, lower cost and more flexibility than was previously available from the mission critical systems at the core of their businesses. EXPLANNER for SaaS was released in August 2009 to meet these expectations. It is a service that is marketed based on our ERP package that has already sold more than 20,000 sets over three decades in the Japanese mid-range private demand market.

3. Outline of EXPLANNER for SaaS

3.1 Service Scope

The scope of EXPLANNER for SaaS (hereinafter referred to as “the present service”) can be classified roughly into standardized domains; these include the accounting/human resources/payroll operations and the differentiated domains such as sales and production (Fig. 2).

The services in the standardized domain contain few peculiarities between enterprises and can be administered by applying the services provided by NEC with almost no modification. On the other hand, those in the differentiated domain reflect the strength of each enterprise at the same time as being based on the standard services.

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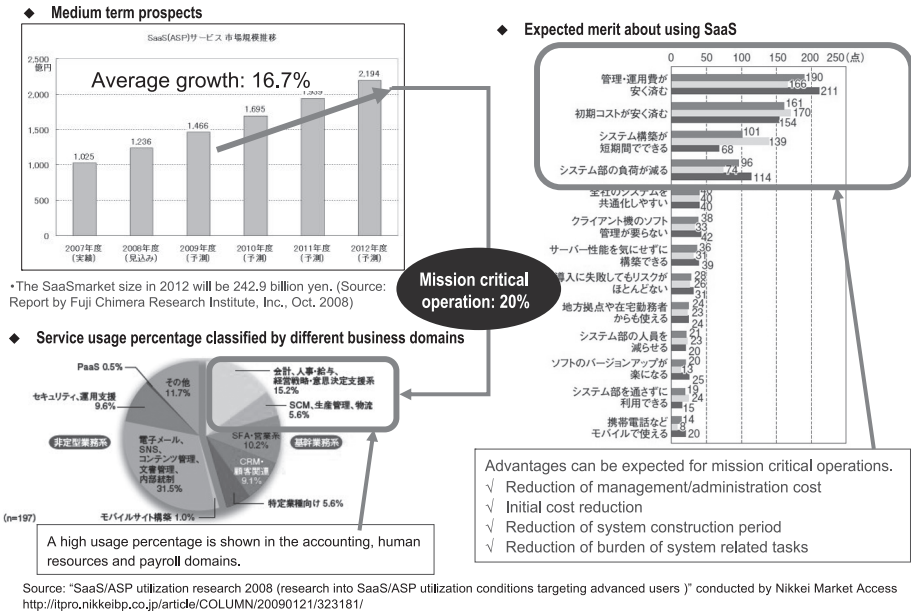


Fig. 1 Needs for SaaS use.

EXPLANNER provides SaaS model services to production and sales operations, and the accounting/human resources/payroll operations. In 2010, The logistics operation and the workflow operation has been added.

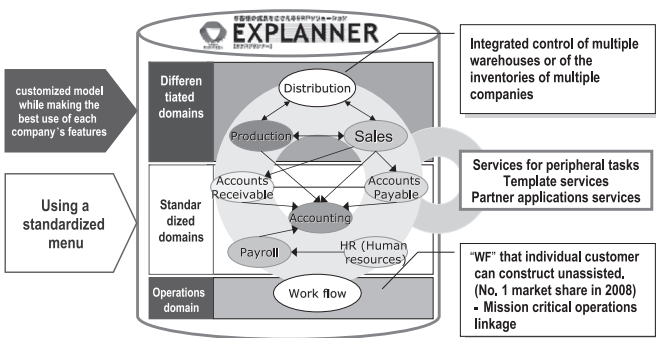


Fig. 2 Service scope of EXPLANNER for SaaS.

In addition to the basic domains listed above, the present service now covers the logistics and workflow domains in linkage with mission critical operations. It can thus create a larger impact with its introduction as a core service designed to benefit more users over a wider range of activities.

3.2 Service Features

As described above, what is characteristically innovative of

the present service is that it is one of the first services in Japan to cover the whole field of mission critical operations using SaaS. Previously, because of issues related to mission critical systems, the use of SaaS in enterprises had been most active in domains other than mission critical operations such as in CRM and groupware. These included needs for advanced administrative support, requirements of advanced security, stability and response and the complexity/diversity of the various tasks. The present service is capable of solving these issues thanks to the points (1) to (3) enumerated below.

(1) Provision of High-quality SaaS Platform

The present service employs a service platform that can fulfill the requirements of stability, ruggedness and ease of operation of mission critical operations. The platform is advantageous in the following regard.

1) Provision of service linkage guide/functions

These support the combined use and mashup of services on a single platform as well as linkage with existing mission critical systems.

2) Provision of data center resources with high added value and low cost

The present service utilizes the business models, system models and service platform (PF) sets that we have arranged and prepared through our achievements in the field of OMCS SI technology offerings.

3) Implementation of secure/safe data center

The present service utilizes the backup center to ensure business continuity.

4) Environmental considerations

The present service implements environmentally-friendly data centers by applying next-generation PF products (servers, storages and networks).

(2) Provision of Methods for Supporting Standardization of Complicated Tasks

In section 3.1, we commented that “The services in the differentiated domain reflect the strong points of each enterprise at the same time as being based on the standard services”. In this domain, we provide the customer introducing SaaS (Fig. 3) with the BST (Business Solution Template) business processing model service. This service is defined based on the expertise acquired in the development and operation of our SI business.

At the time of the service introduction, we select the necessary process operations from more than 100 different processes provided as standard by BST. This strategy enabled us to implement the standard business process model of each customer flexibly and speedily.

BST is a collection of templates reflecting the characteristics of the types of businesses of mid-scale customers in particular. They are systematized based on experience gained in the introduction of EXPLANNER as a package.

(3) Flexible Service Building Based on Combinations

In addition to the present service, NEC is also preparing SaaS solutions for small and medium enterprises. These solutions completely cover their departmental IT tasks, including those of the front operations such as the portal procedures and mailing, peripheral tasks for supporting improvements in management and business transparency, consulting and BPO (Business Process Outsourcing) (Fig. 4).

When SaaS solutions for small and medium enterprises are freely combined around the mission critical business service, it becomes possible to build all of the services required for enterprise systems very flexibly.

3.3 Results-based Billing Model

With regard to the services in the differentiated domain (sales and production), the present service adopts the results-based billing model, with which the service fee varies according to the customer’s business results (Fig. 5).

Specifically, the results of application of the present service are measured and evaluated continually in cooperation between the customer and NEC by setting the “inventory turnover rate,” which can prompt reflection of the relationship between the results and the IT services and can easily be evaluated quantitatively as an evaluation index. The SLA (Service Level Agreement) and the billing system are reviewed each

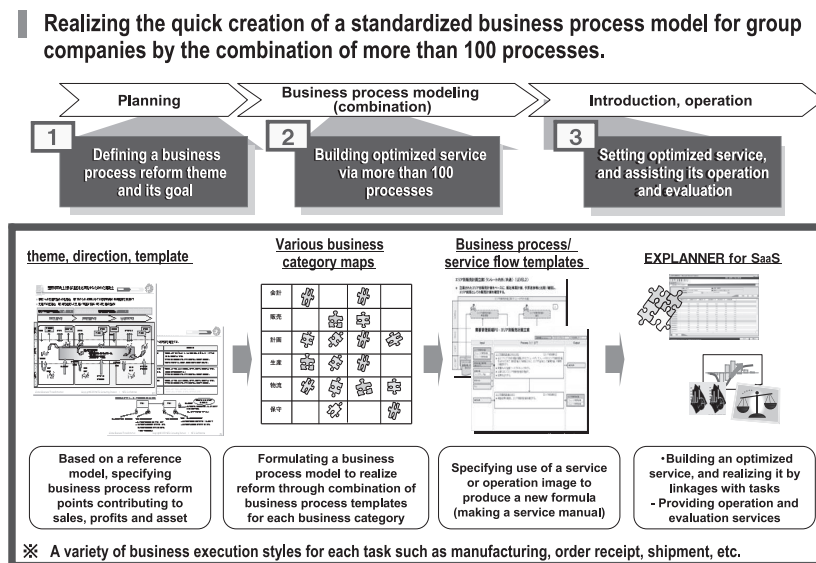


Fig. 3 Business standardization support using BST.

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fiscal year. The application of this billing model presupposes that the business process model is established using BST in order to achieve relevant business reform targets and that the present service is used based on the established model.

This billing model demonstrates the basic concept of EX-

PLANNER, which is “the solution supporting the growth of enterprises.” Its aim is to achieve results based on running a continual cycle of reform in cooperation between the customer and NEC.

- Expansion of the service menu for front /peripheral, consulting and platform services by setting the “EXPLANNER for SaaS” mission critical services as the core.
- Fifteen service menus are offered at present. This number will be increased to about 50 in the first half of FY2010.

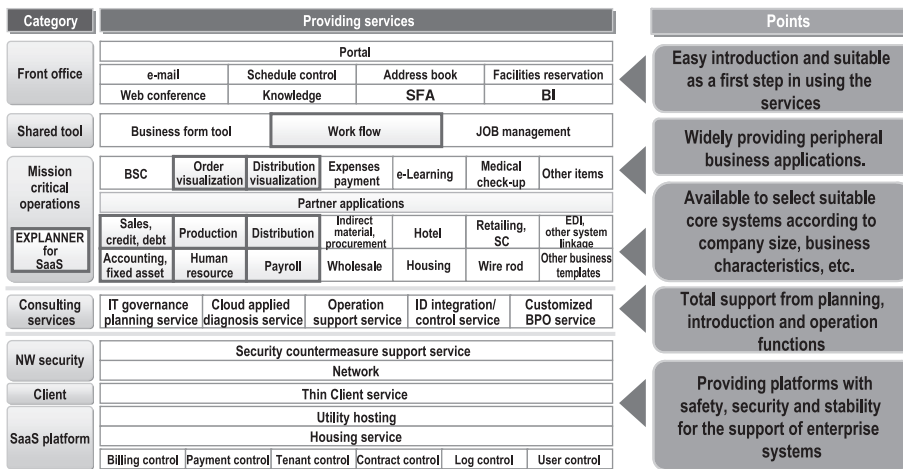


Fig. 4 SaaS solution system for small and medium enterprises.

- In the case of the differentiated domain (sales and production), a billing model that varies according to the business results of each customer is incorporated in the SLA.

- It presupposes the application of the BST business process modeling service.
- The trial evaluation will be started by assuming that business results are equal to the results of the “inventory optimization.”

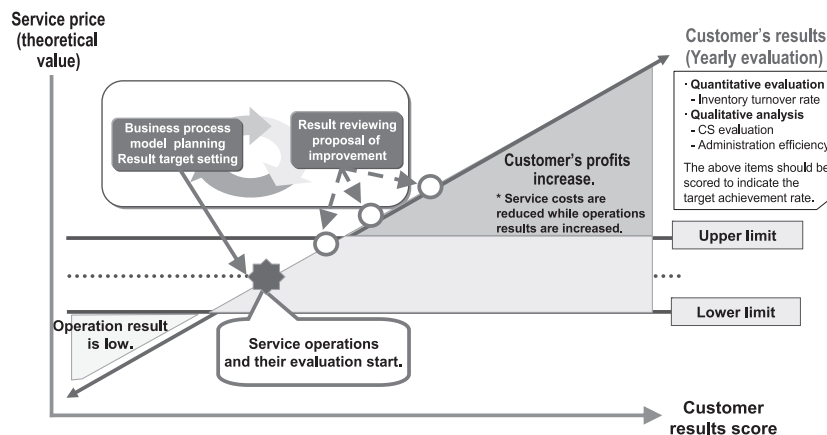


Fig. 5 Diagram of the results-based billing model.

4. Service Provision Model

4.1 Service Provision Patterns

The provision patterns of the present service are roughly divided into two focus areas. One is “SaaS for individual enterprises” with which individual corporations access a common environment and utilize common services. The other is “SaaS for enterprise groups” with which an exclusive environment is prepared for use by each enterprise group (Fig. 6).

With “SaaS for enterprise groups,” the business standards of each enterprise are defined by applying the BST business-model service described above, which is deployed within the group by means of SaaS.

This pattern makes possible a certain level of customization per enterprise group.

4.2 SLA Service

The present service is provided to customers in accordance with the separately defined SLA. The SLA is the established basis of the “SLA Guidelines for SaaS” of the Japanese Ministry of Economy, Trade and Industry. SLA items such as reliability and data management of the system are provided at a suitable level for effectively running an enterprise mission critical system. On the other hand, it is essential for the customer to recognize that certain restrictions are imposed on individual modifications of the SLA itself. For example, the system operation time, the help desk availability time and the system extendibility (customization) are limited within the

Two patterns are available, including “SaaS for individual enterprises,” that is used by individual enterprises via the Internet and “SaaS for enterprise groups” that builds an exclusive service environment for each enterprise group.

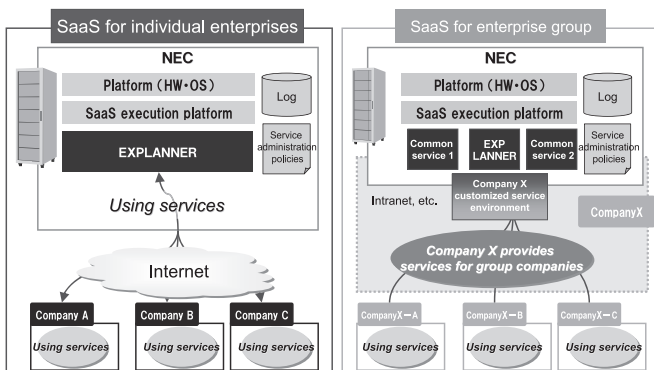


Fig. 6 Service provision patterns.

standard categories defined for the SLA and may not meet the specific requirements of the customers.

As mentioned in section 2 above, it is important to have each customer select the optimum model to match specific orientation based on a thorough understanding of the differences between the two NEC cloud models; the “customized” and the “SaaS” models.

5. Customer Advantages

5.1 Optimization of IT costs

One of the customer merits in the use of the present service is cost optimization by implementation of “IT, without owing it.”

Under the long-term severe economic climate and a business environment in which enterprise structures are repeatedly changed at short notice, it is one of the critical aspects of management to introduce IT in support of businesses with as small an investment as possible. The use of SaaS-based ERP can replace the significant capital investments that used to be generated at the time of system introductions into a monthly fee that is a variable cost. Thereby allowing an enterprise to improve its IT asset efficiency and maximize its cash flow (Fig. 7).

5.2 Increased IT Introduction Speed

With regard to the introduction of the present service, it can significantly speed up introduction and use of mission critical

The use of SaaS-based ERP supports the strategy of an enterprise to expand its business by achieving IT asset efficiency and maximizing its cash flow. At the same time, IT cost priority will shift from “investing in facilities” to “using facilities”.

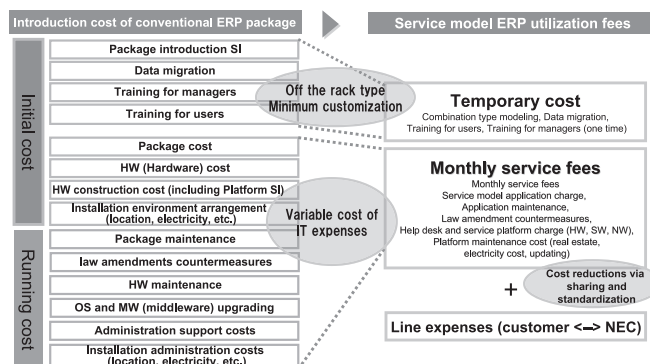


Fig. 7 IT cost optimization diagram.

The introduction of SaaS-based mission critical systems accelerates resource shifts of IT organization toward core functions, improvements tonon-core functions and labor reductions.

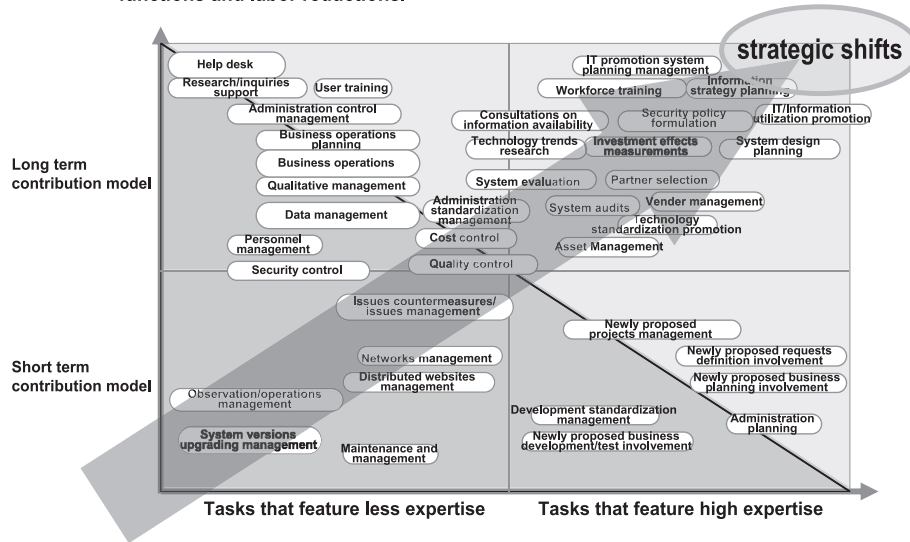


Fig. 8 Diagram of IT organization resource shifting.

systems by greatly reducing the customer responsibility for contingency studies, process design, IT environment construction and administrative systems preparation.

In particular, with regard to the services in the standardized domain (accounting/human resources/payroll operations), we can reduce the service introduction time to about half that of the traditional cases of package introductions (2 to 3 months) by changing customers’ businesses to use of the standard services, which employ standard setting sheets and standard model description sheet.

5.3 Freedom from Administrative Tasks

Important issues for many customers are how to reduce the burden of execution of the many diverse tasks from planning and enforcement of IT strategies to routine administration management and how to obtain and cultivate the exhaustive skill set needed for the execution of essential tasks. In particular, the burden of the administration management is increasing everyday due to the necessity of following the complex advances of IT technology and dealing with version upgrades. The introduction of the present service can free the IT organizations of customers from such administrative tasks and accelerate resource shifts to core functions (Fig. 8).

In addition, users of the present service can implement more advanced administration systems. Adoption of the secure, safe service provided under the advanced SLA will also make is possible to take care of the security advancement requirements that grows day by day as well as coping with the advancements in IT management requirements from the viewpoint of BCDR (Business Continuity and Disaster Recovery).

6. Future Deployment

As described in section 3.2, “Service features,” we are currently preparing SaaS-based solutions for small and medium sized enterprises that are capable of covering the entire range of tasks of customers’ IT departments.

Customers in the small and medium sized enterprises are in particular facing serious problems such as a reduction in IT investments and an increase in the administrative burden with a limited number of IT staffers, as discussed at length in the above. It is therefore expected that demands for an enhancement of the lines of SaaS-based solutions for small and medium enterprises and their administration systems will increase in the future as focus is concentrated on solving these problems.

NEC, as a total IT system supplier will enhance support for

leading competitors' enterprise mission critical systems via the SaaS model. Our full range of models will be capable of one-stop provisions that will range from the platforms (IT devices, DC and networks) to a large number of applications centered on mission critical applications, consulting and BPO.

7. Conclusion

When we began investigations into the business potentials of SaaS-based ERP in 2008, the use of cloud systems by enterprises, particularly those using SaaS, had been limited and the transparency of business plans was extremely low. However, since we announced the entry into the market of EXPLANNER for SaaS, with the certain intension of trials in 2009, customer needs for the cloud system are rapidly becoming noticeable. Although it is extremely difficult to forecast big changes in technology usage or business models and to concentrate optimum resources accordingly, at NEC we have influenced the shift toward the enhancement of cloud-oriented enterprise services. Positioning EXPLANNER for SaaS is the core of this business and it is our intension to continue to endeavor to create new services and business models.

Author's Profile

OIKAWA Noriko

Manager
EXPLANNER Department
3rd Manufacturing Industries Solutions Division
Manufacturing and Process Industries Solutions Operations Unit