

Research on the Electronic Commerce Application based on Services

Yi Dan

Jiangxi College Of Foreign Studies

Abstract—E-commerce is the inevitable choice of enterprise development in network era. Although the infrastructure, IT professionals and capital are relatively lack and the management also has different characteristics, the small and medium-sized enterprises still in an urgent need to blend in the tide of network economy, by Internet, to get the business opportunity and decision-making reference, release business, promotion and advertising information, to implement pre-market sale of after-sales service, customer follow-up research and market research, and to realize online transactions and the enterprise supply chain. From the specific requirements of enterprises, this paper fully analyzes and standardizes enterprise's current business process, and finally programs and realized guided by the paper and through system analysis and system design.

KeyWords—Computer application; Electronic commerce; B/S; SEAIIF

I. INTRODUCTION

Along with the rapid development of Internet, online business activities are becoming more common. The great success of E-commerce depends largely on the enterprise information system which cannot seen by Web users. The electronic commerce is supported by a huge support system, which is composed by applications written by different computer languages and runs on different operating systems. They have different storage formats and transmission mechanisms, and support different technical standards. The integration of application must adopt a flexible and extensible mark language (XML).

At the same time, there are few domestic application software developers which can provide enterprises with the overall solution from ERP, CRM, SCR to e-commerce sites. Due to localized advantages, the domestic application software developers often have a great advantage in one kind of application software

development. Whether can integrate the local advantages of each software developer as the whole advantage is directly related to the future development of domestic e-commerce. Therefore, it is urgently needed a technical framework which can easily integrate different e-commerce software.

So this paper is integrated in WEB platform based on B/S mode enterprise management system and e-commerce system, and tightly integrated based on original data -enterprise center database platform sharing. Application integration system makes internal and external information flow directly intersect and integrate which makes the information flow among customers, internal enterprises and suppliers be smooth and connects customers, enterprises and suppliers together. It also responses the market with the fastest speed and the lowest cost, timely grasps opportunities and constantly improves and consolidates competitive advantages. This paper also studies the design and realization of enterprise center database, the enterprise management system, the solutions of e-commerce system and the system and structure of its integration and application integration system.

II. APPLICATION NETWORK PLATFORM

The backbone switch of application network platform has middle high end network switch with three layers switching functions, which is connected with campus network through the optical fiber module and is connected with server with 1000M in Ethernet. Minicomputers connect to the two PC through IXA card, which can make full use of SMARTSUN function of IBMAS / 400 .

The structure of the application network layers is shown in Fig .1.

Application: The electronic government affairs, The electronic commerce, The business management, ERP, CRM, etc.
Application intermediate platform: WebSphere, WebServer, Domino, etc.
Database: Oracle, Sybase, DB2, SQLserver
Network operating system: UNIX, Windows2000, OS/400
Network server: PC server, minicomputer

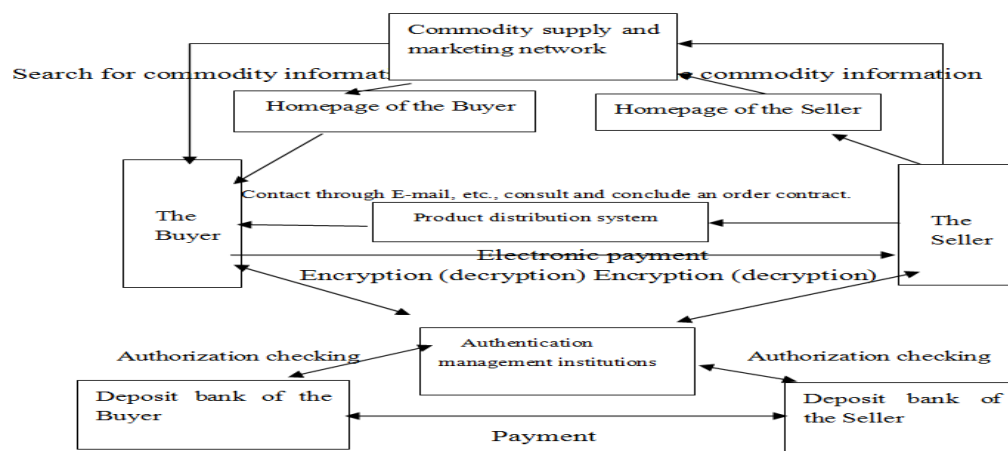
Figure .1 The layers of the application network platform

III. E-COMMERCE PLATFORM

With the continuous development of electronic commerce and electronic government affairs, to understand and master the application environment of electronic commerce and electronic government affairs is the indispensable basic knowledge and skills for computer and related professional students. As the most mature and practical e-commerce platform software, Websphere has become one of the indispensable platform software to

implement electronic commerce and electronic government affairs. Websphere Application Server provides rich e-commerce application deployment environment with a complete set of application services, including transaction management, security, clustering, performance, availability, connectivity and scalability functions. It is a Web application server based on Java, which can help to deploy and manage many applications from simply Web site to power e-business solutions.

Internet-based e-commerce runs as shown in Fig .2:



Internet-based e-commerce operation mode

Generally speaking, e-commerce can be mainly divided into the following two modes, business to end custom, which is known as B2C and business to business, which is known as B2B.

IV. SEAIF SYSTEM STRUCTURE

SEAIF system structure. The structure divides the services into three layers: Web service, enterprise application service and application component service. According to the three service layers, there are three domains: Web domain, enterprise computing environment

domain and application component domain. Web services are completed through enterprise application service and enterprise application service is completed through application component service.

SEAIF shows the dependencies between services to levels of service and service level. Application component service is Level 1, enterprise application service is Level 2 and Web services is Level 3. Web services is the highest level of service, component service is the lowest service. High level services rely on low level service. Also, in the same domain, services are further divided into several

levels. Figure 3 is an instance of the service levels. The different levels of service constitute mesh structure. The arrow from Service a to Service b indicates that Service a

$$\zeta(a') = \max(\zeta(a), \zeta(b), \dots, \zeta(k)) + 1 \quad (1)$$

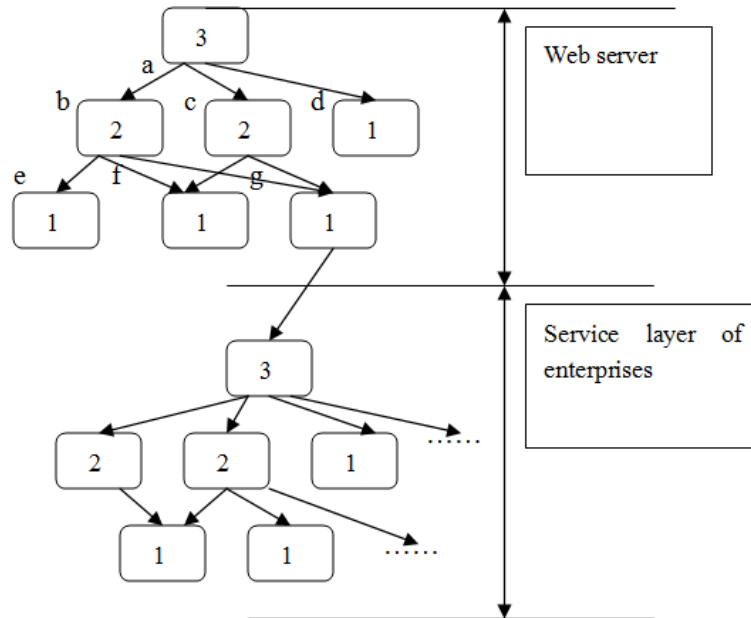


Figure 3. SEAFI service layer

Taking Web layer service in Fig. 3 as an example, explain the computing level of SEAFI computing, Web domain service dependencies expression is as follows:

$$a = \theta(b, c, d), \quad b = \theta(e, f, g),$$

$$c = \theta(f, g)$$

it can be obtained from Formula (1), that

$$\zeta(b) = \max(\zeta(e), \zeta(f), \zeta(g)) + 1 = \max(1, 1, 1) + 1 = 2$$

$$\zeta(c) = \max(\zeta(f), \zeta(g)) + 1 = 2$$

so,

$$\zeta(a) = \max(\zeta(b), \zeta(c), \zeta(d)) + 1 = 3$$

Conclusion

Network era has arrived and any state, enterprise or individual should not refuse it, or they will lag behind the social development. Although there are a variety of problems, we cannot blindly be on the sidelines or wait until all the problems are solved then to participate in,

depends on Service b. The service level calculation formula is:

which will be too late. It is completely necessary for traditional enterprises to actively get involved according to their own circumstance, especially small and medium-sized enterprises should seize this rare opportunity.

In this paper, the author studies on the computer application system of small and medium-sized enterprise, which have the following features:

The system is based on B/S mode application integration system. C/S model adopted by traditional application system cannot meet the application requirement of the enterprises under the network economy era. B/S mode is the trend of the development of enterprise application system. The system is based on B/S mode integrated enterprise management system and electronic commerce system, which can be used as enterprise WEB portal.

2. Building enterprise center database provides a unified data platform for the application of enterprises. Enterprise application integration is raw data sharing

based on a central database integration and provides integration framework for enterprise application extension which is easy to extend.

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