

# The Research and Development of the Administrative Examination and Approval System based on J2EE

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**Abstract—E-government is the key of the current informatization in our country, one of the core problems of which is to implement the electronic and network of the administrative examination and approval procedures of various government departments. Concrete realization goal is: to improve the efficiency of the government office, optimize the approval process, smaller government departments, better service for citizens and enterprises. The implementation of online examination and approval will be a great challenge to the traditional examination and approval of business process, in which the business process reengineering is a change brought by e-government. Through structure model, the definition and analysis of the workflow and the design and determination of the hierarchical structure, this paper reveals the new characteristics of online examination and approval business process. Based on J2EE structure, this paper conducts reasonable resolution to the most common functions by the hierarchical structure design concept, so as to achieve the functions of being easy to expand and transplant;**

*Keywords-Computer applications; E-government; Examine and approve online; J2EE*

## I. INTRODUCTION

Online administrative examination and approval is an important component of e-government and a basic work for the electronic government affairs, and it is also the breakthrough which will further promote the implementation of e-government affairs. Scientific development and application for online examination and approval project has positive practical significance and far-reaching historical significance to deepen the reform of

the examination and approval system, to speed up the transformation of government function, to promote administration according to law and government affairs become public, to innovate the means of work, to promote the cultivation of clean government, to change the style of work, to improve the efficiency of government management, service and level.

Today, the cooperation and contact in trade, investment and financial between countries have rapid development, and the economic globalization trend has become increasingly apparent. From the perspective of the requirements of full participation in international competition and cooperation, the problems of the current administrative examination and approval are still prominent, such as the matters are more, the range is wide and the efficiency is low, the approval work time is too long, the processes are more, management and system, open and working time constraints are in a lack of social supervision, which does not only reduce the government efficiency, but also be easy to bungle enterprises to occupy the market or to win the precious business opportunities of development, and seriously restricts the improvement of international competitiveness, influences the improvement of the national or regional economic development environment. The implementation of online examination and approval is beneficial to improve the government efficiency, to enhance the scientific and democratic of the decision-making of the government with obvious superiority.

## II. THE PROBLEMS EXISTING IN THE ONLINE ADMINISTRATIVE EXAMINATION AND APPROVAL OF OUR COUNTRY

From a functional perspective, "one-stop" service requires all columns of the electronic government affairs information website to be tightly around the needs of citizens and enterprises, which enable people can purchase all the service they need for one time, just like they are shopping in the supermarket. However, at present, since "one-stop" service is still in the attempt stage in the electronic government affairs in our country, implementation technique and means is still in groping, therefore, there must be many shortcomings.

### A. *Poor service content and low service level*

World market research center, a government websites online services according to A survey which is about the online service of government web site provided by World Market Research Center shows that in our country there are only a few governments can provide online service. Most government websites currently can only provide form download and guide, but cannot carry out online service. It can be said that the real "one-stop" service has not yet started in an all-round way.

### B. *Low level of the application of government web sites*

Foreign government websites are developed in online procurement, bidding, recruitment and the real applications are more. However, the most government websites in China have no formal running online government procurement projects, or can only provide a small number of bidding information, and expert evaluation and enterprises bidding online are rarely seen.

### C. *Being lack of interactive services function*

Whether can provide the bi-directional interactive services is an important content to show the website construction and application level. Good interactive

services also can provide tracking query to the statue and result after submitting the application of online office project. However, there are only a few government websites can do at present of China.

### Web application structure based on J2EE

The development of J2EE WEB application structure can be roughly divided into two stages, which are Model 1 and Model 2.

Strictly speaking, Model 1 cannot be regard as the one to form the structure. The basis of Model 1 is JSP file; JSP files extract parameters, call the appropriate business logic, process HTTP dialogue from the requests of HTTP and form HTTP document. A series of SJP files form a complete application, namely Model 1. Early ASP and PHP belong to the situation. The advantage of Model 1 is to simply mix the business logic and performance, which is same as the traditional two layers structure whose processing and load are all in the client and the server is only the transmission controller between application and data. In terms of scalability, maintainability and safety, Model 1 has obvious disadvantages.

Model 2 inserts a control component between client application and JSP or Servlet. The control component centrally handles the distribution logic of HTTP requests sent by client application. That is to say, it will input parameters and the internal state of current application, and distribute the requests to JSP or Servlet of the appropriate Web levels in according to URL requested by HTTP. On the other hand, it is also responsible for choosing the next view (in ZJEE, JSP and Servlet will generate and return to HTML of browser to form a view). Centralized control component is good for security verification and logging, because sometimes it requests data for the following Web Tier encapsulates. The implementation of the set of logical form a application framework like MFC. Fig .1 shows J2EE application programming model application based on Web application.

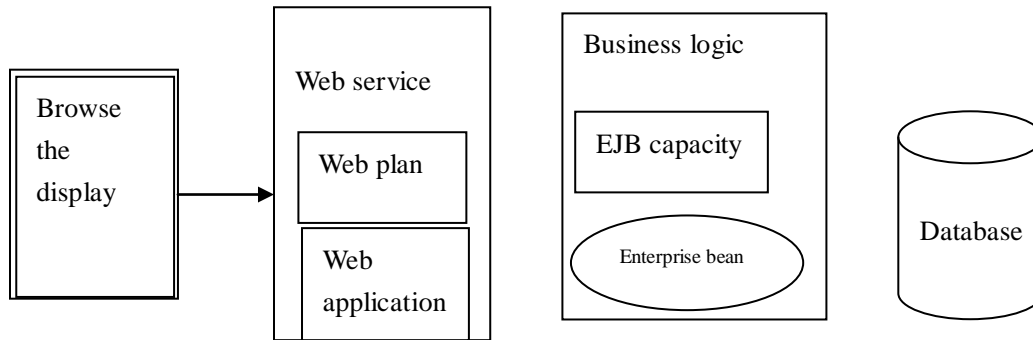


Figure 1. Fig. 1 J2EE application programming model

### III. THE RESEARCH OF THE IMPLEMENTATION METHOD OF ADMINISTRATIVE EXAMINATION AND APPROVAL SYSTEM

For user interface subsystem, the system adopts Dream weaver to develop static pages. For example, there are many inputting contents which have fixed format in login pages, information entry, project examination and approval processes. Static page can be a good solution; Dynamic pages, mainly in the data query, are dynamically produced by servlet.jsp which is downloaded from Web server.

The business logic control programs of the middle tier, such as servlet, javabean, session and entity bean are developed in JBuilder(JB7). Through visualization and reconstruction of UML code, JB7 takes advantage of the developed program modules; Click UML forms of integrated development windows, JB7 can generate UML model of an object to analyze and check the relationship between different functions and modules. System design and tracking system analysis are verified in the actual development of JB7 again, analysis and design can be corrected again. The wizard tool provided by JB7 can quickly develop Javabean or EJB. The process to develop EJB components can be divided into: creating a remote interface; creating Home interface; creating Bean's implementation class; compiling remote interface, Home interface and Bean's implementation class; creating deployment description for configuration; deploying EJB components and assembling applications.

Background database creation is to establish database on SQLServer2000, create each data table, determine the primary keys, indexes and establish the relationship between the tables with foreign key associations.

According to the needs, to define the view, storage processes, triggers, etc.

### IV. CONCLUSION

In the implementation, there will be many problems in administrative examination and approval system online, however, the system is always closely around the transition of government function and becomes perfect constantly to meet the needs of the business. As a result, the system runs up to now, its application abilities have been affirmed by all aspects of the society. Put the management process of government departments completely under the supervision of the people who are being served, which effectively promotes the business construction and style construction of government departments. This paper systematically introduces J2EE e-government system solutions and takes it as the platform of administrative examination and approval system development; based on J2EE technology structure, this paper also conducts reasonable resolution to the most common functions by the hierarchical structure design concept, so as to achieve the functions of being easy to expand and transplant; the paper then achieves the interconnection of heterogeneous database and heterogeneous operation platform using browser which is facing many database and operating platform.

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