Study of Implementation Strategies of EG Platform Construction

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ABSTRACT

With the arrival of INTERNET+ era, traditional marketing concepts will inevitably experience a profound reform. Constructing Electronic Business (EB) Platform with high performance, high security and super stability has become focus of business and academic circles. In this Essay, specific implementation plan of EB platform construction was systematically analyzed, related security risks were deeply dissected and corresponding feasible suggestions were made accordingly, the author wishes to provide relevant theoretical reference to EB enterprise marketing management practice.

INTRODUCTION

Nowadays, with the unprecedented development of information technology, EB application is gradually penetrating and changing various aspects of social economic life along with the multi-polarization, regionalization and integration of world economy and the development of international trade liberalization. With the help of a wholly new platform—business website, enterprises not only can collect and publish large amounts of information with low investment cost, but also can save much time for improving internal management, product quality and service system. Apparently, under the impact of internet trend, traditional business concepts will inevitably experience a profound reform. Meanwhile, a totally new supply chain between enterprises and customers is being gradually formed.

OVERALL PLANNING IDEAS OF EB PLATFORM

Before officially constructing EB platform, systematic overall planning shall be conducted. After that, EB platform shall be gradually established on basis of such planning as blueprint. In general, planning ideas of EB platform shall be reflected on following aspects: 1. Specify purpose of constructing EB platform; 2. Conduct deep and detailed market research; 3. Determine theme, contents, design style and implementation steps of EP platform; 4. Estimate funds needed for construction and operation of EB platform; 5. Complete relevant formalities required for establishing website; 6. Apply unified website management system. In this Essay, only section of how to conduct market research in overall planning of EB platform was systematically analyzed and discussed. Extensive and effective market research will achieve twice the result with half the effort for establishing
Specific operation can be conducted on two layers—product research and competitor research: On one hand, product research shall include: 1. Market shares of existing products, is it a sunrise industry with demand exceeding supply or a sunset industry with supply exceeding demand? 2. Competitive power of enterprise products. Conduct horizontal comparison of enterprise products with similar products in market. Make up disadvantages of enterprise products with advantages of products of outstanding enterprises on business website platform. 3. Sales groups and sales areas of enterprise products. Age range, educational level, work nature and personal preference of consumers, characteristics of consumer areas, how to further explore and expand sales areas are subjects need to be researched and paid with more attention. According to the latest data of CCNIC, most net citizens are optimistic about online shopping, but they are not satisfied with security, product quality, after-sale service and manufacturer credit problems which exist in current online trades and are not effectively guaranteed. Therefore, how to improve security of EB platform and provide excellent service system are key points in website establishment. On the other hand, deep competitor research shall be conducted in EB platform overall planning stage. Under an effective marketing plan, an enterprise shall know strategies, targets, advantages, disadvantages and reaction modes of its competitors, understand how to design a highly-efficient competitive intelligence system, and determine to attack or avoid its competitors. Benchmarking mode can be appropriately introduced in section of changing competitive performance. Implementation of benchmarking shall consist of following seven steps, as shown in Diagram 1. Of course, in actual operation, scope of market research may be limited by time, man power, fund and other factors. Therefore, while researching similar websites, it is smart to focus on famous websites of the industry and learn about their functions and operations.

![Diagram 1. Benchmarking Steps.](68)
1. Verify benchmarking items

2. Verify variables to measure key performance

3. Verify the best-in-class competitors

4. Measure performances of the best-in-class competitors

5. Measure Enterprise performance

6. Define plan and actions to close gap

7. Implement and test results

**CONFIGURE SOFTWARE AND HARDWARE ENVIRONMENT FOR EB PLATFORM AND DEVELOPMENT TECHNOLOGIES**

Network platform is the core platform for a business website because all information resources of website are stored on network platform. So the establishment of network platform is essential to development, operation and excellent performance of the whole business website. Generally speaking, a basic network platform shall consist of hardware platform (server, workstation, network card, switchboard, router, firewall, transmission medium, access line and etc.) and software platform (network operating system, email server software, web information service software, network database software, network client software and etc.). Before selecting software and hardware products for network platform, systematic planning of network platform shall be conducted and design plan shall be reasonably selected according to actual needs as fundamental bases. Firstly, current status of computer equipment, application system and network environment of enterprise shall be learned about, familiarity degree of enterprise employees with existing computer resources shall also be mastered. Secondly, security levels of application systems shall be known, namely verifying business website is an independent system or a system connecting to internal network of enterprise. Thirdly, since different client groups have different demands on network bandwidth, so internal and external information volume of business website platform shall be estimated. Website developers shall conduct deep and detailed demand analysis in advance, accurately estimate information volume of business website and determine network bandwidth needed for enterprise. Fourthly, construction scale of business website platform shall be found out, namely the amounts of to-be-invested funds and manpower.

Integrated development environment is an indispensable tool for dynamic webpage development. Dreamweaver is a product launched by Macromedia Company, it is an outstanding webpage design and website management software with powerful and special functions. Besides the two functions mentioned above, Dreamweaver also provides complete visual edit, highly-efficient code control, automatic generation, complete website planning, rich dynamic technologies, construction support and excellent expanding functions. Nowadays, with the continuous increase of Web business, most business websites basically consist of webpages with complicated interaction functions so that they
can provide abundant and in-time information to their clients. On such webpages, processing programs (scripts) are integrated for retrieving information to respond to user demands. Forms are usually used for typical Web application programs to collect user demands, demands are then retrieved in database, relevant retrieved information will be returned back to users. Certain standard application programs shall be used for completing interaction and accessing database at early stage. Such programs are developed on server end to connect to Common Gateway Interface (CGI) of HTML and other application programs. Microsoft launched ASP technology to replace CGI and provides more powerful functions for interaction and database access solutions. ASP technology organically and almost perfectly combines HTML, scripting language, background services and powerful Web database. A program which can implement editing and translating on server end is generated, standard HTML-format files are returned back to browser on client end. During electronic business, on one hand, users find products and services they need through checking web information; on the other hand, enterprises promote their products and services, expand their sales channels and extend their market shares through a whole new platform—business website. Hence, Web service providers shall provide clients with querying background data through browser as a basic service. Such function can be easily fulfilled with the help of built-in ADODB components of ASP, ADO can be used to edit scripts and connect to ODBC-compatible database and OLE DB-compatible database. In addition, although JSP+Servlet+JDBC+JavaBeans has become mainstream technology for EB platform development abroad, many Chinese server platforms are based on Windows2003/ Windows2008 and ICP service providers do not provide services based on JSP technology, so it is not suggested to use JSP technology. JSP technology has not become a mainstream development tool yet in China. A dynamic business website definitely can’t be operated without background database technology support. As a result, a Web database with usability, high efficiency, security, compatibility and powerful functions shall be selected as backup force. Among numerous databases, SQL Server has richer functions and better interface, so it suits for large, medium and small scales of data management. SQL Server is widely used for dynamic websites; moreover, highly-efficient cooperation between ASP website development program launched by Microsoft and SQL Server makes the latter program become an edge tool for business website establishment.

WEB INFORMATION SECURITY OF EB PLATFORM

Internet has promoted and pushed technological advancement and innovation process of human society, it also has accelerated informatization. However, Internet has also created many new challenges at the same time. Network security is a principal and unavoidable problem in website development, construction and use. Security and reliability of information resources are key concerns for business websites. Compared with internal independent networks of enterprises, enterprises and public institutions, it is more necessary for business websites of such units to be always connected with Internet. As a result, malicious attacks from network hackers and illegal invasions of viruses are inevitable for business websites. There are countless cases about direct and indirect losses caused by network attacks to enterprises both in China and foreign countries. According to statistical data of Ministry of Public Security, cybercrimes had been increasing at a rate of more than 30% in recent years, it is even more disturbing that nearly 90% of Chinese EB websites have big or small security breaches. Therefore, whether information resources can be effectively guaranteed has become a major obstacle against EB development. What measures shall be
taken to effectively ensure operational security of EB website? The key of solutions to such problems is to improve self-resistance of EB platform. A famous network security company—Hurwitz Group—believes that following five aspects shall be focused while considering network security problems: network layer security, system layer security, user layer security, application layer security and data link layer security. Namely five layers of network security: 1. Network layer security: Key problems of such layer are whether network can be effectively controlled and if users at any address resources can access network. Threats to network layer security are mainly from sniffing attack, fake identity attack and etc. Network sniffing attack refers to sniffing relevant information in insecure network, make user network interfaces at broadcast status and intercept information which is being transmitted in network. This is because Internet consists of millions of connected local networks, it means that each Internet site is in a particular local network. Currently, many local networks belong to broadcast network, all data packets in a local network can be captured when network card of such local network is set as hybrid-type. Moreover, storing and forwarding technology is used to transmit data on Internet, it means that data needs to pass many networks and routers to be sent from original address to destination address. It is possible for hackers to steal information from any computer. Information stolen by hackers may include user ID, password, account, order, other important information and business information of clients. Attackers can use above information to attack network. VPN technology and firewall technology can be used to prevent such situation. VPN technology relies on physical connections of existing public networks, creates network tunnel for data transmission and uses encryption technology during communication to avoid intercepting and understanding information by unauthorized users. Firewall technology establishes a barrier between internal and external networks of enterprise, communications between internal and external networks must pass such barrier for inspection and connection, and only authorized communications can pass such barrier. 2. Network operation system security: In “Computer Security Standards”—namely “Trusted Computer System Evaluation Criteria”—made by U.S. Department of Defense (DOD), operation system security are divided into 7 levels from low to high: D-level, C1-level (Discretionary Security Protection), C2-level (Controlled Access Protection), B1-level (Sign Security Protection), B2-level (Structured Protection), B3-level (Security Domain Protection) and A1-level (Verified Design). At present, security level of main computer network operation systems is Controlled Access Protection. Through setting identification impersonation level, access network resource rights of users are limited. Security and auditability of network are strengthened by registration, log, security event audit, resource isolation and other relevant technologies. Although many security mechanisms are implemented for main network operation systems and security level has reached to Controlled Access Protection, but in order to assure operational security of network, network operation system security shall not be treated lightly, problems like if there is breach in services provided by system and if access right settings are correct shall be paid attention as always. 3. User layer security: User ID and password are needed for accessing information resources on network platform through Internet. The focus of user layer security is to verify if there is unauthorized user using information resources in system. ID authentication and identification are against not only user ID, but also authenticity and reliability of information. Besides ID and password mechanism, commonly used number signature technology is also realized. Presently, it is popular to entrust professional certification authorities conduct ID authentication and identification with advanced technologies to strengthen security of the key work—authentication and identification. 4. Application layer security: On application layer, many application software have various security breaches, hackers may use such breach
information, break into networks and cause disastrous consequences. Therefore, promptly installing patch programs for application software and blocking breaches through setting interfaces are indispensable works. 5. Data link layer security: The main problem needs to be solved for this layer is data completeness and availability, namely ensure transmission security of data on Internet by enciphering data. There are two kinds of commonly used encryption technologies: symmetric encryption and asymmetric encryption. Presently, there is a kind of encryption system on Internet called Pretty Good Privacy (PGP) which provides private privacy, authentication, number signature technology and other measures. PGP encryption system applies existing encryption algorithm, integrates and forms results. Of technologies and message digests. Generally speaking, a computer network platform with excellent security shall have recourse, completeness of data transmission on Internet can be guaranteed by both encryption privacy, completeness, availability, authenticity, usability and occupancy. Network security management is the system engineering in which security strategies shall be implemented for stable operation of enterprise EB platform. Besides advanced technologies which shall be applied, corresponding network management measures shall be combined, corresponding network security laws shall be implemented and effective evaluation system shall be established.

CONCLUSION

Silicon Valley talent and CEO of Cisco Company John Chamers believes that Internet Revolution is unprecedented, it permeated into enterprises much more deeply than the Industrial Revolution did 200 years ago. If we say Internet generates the eighth continent for the world—a virtual continent, EB is the powerful heart which assures normal operation of the new continent. In recent years, with the rapid development of information technologies and the popularity of Internet, more and more enterprises changed marketing modes of their traditional businesses, they promote their products in the whole world with the help of convenient network. Therefore, we have reasons to believe that “business websites” which transmit information through “electronics” will gradually and vigorously develop in every corner of the world.

REFERENCES