Construction of computer system and network engineering supervision system

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Abstract. With the development of national economy, computer network technology is also developing rapidly. Network benefits all aspects of people's production and life, science and technology throughout all corners of life. Computer system includes a lot of science and technology investment and a lot of data collection. To build a successful computer system requires a lot of time and energy, and high technical requirements, so as to build a more practical computer system and network engineering supervision system. The rapid development of science and technology has brought more convenient services to people's life today, changing people's traditional production and lifestyle. The construction and improvement of computer system and network supervision system is a relatively large computer project, involving funds, time, technology, personnel and other aspects. This paper analyzes the construction and existing problems of computer system and network engineering supervision.

Keywords: Computer, System, Network establishment, Perfection

1. Introduction
Today's world is a developing world. The information industry is closely related to the development of various countries. It has become a new productivity and a strategic industry for future development. Therefore, the degree of informatization has become an important symbol to measure the modernization level and comprehensive strength of a region and a city. In order to improve the city's economic strength and promote the overall development of the city's national economy, Tianjin Information Port project is listed as the key project of the city. The purpose of establishing the computer system and network engineering supervision system is to effectively manage, control, supervise and evaluate the overall quality, progress and investment of the enterprises and units undertaking the informatization construction projects in Tianjin, and take corresponding management measures to ensure that the engineering construction behavior conforms to the national laws, regulations and relevant policies, Comply with relevant technical standards, specifications, procedures, etc. to safeguard and protect the interests of the construction unit (Investor). The research contents of
this supervision system mainly include: the guiding ideology and basis of supervision, the establishment, management and operation of supervision units, the qualification certification of engineering contractors, the main contents and methods of supervision, and the standards of engineering supervision. The establishment of computer system and network engineering supervision system can guarantee the legality, scientificity and economy of construction behavior, which is of great significance to the process construction: it is an important means to ensure the quality of the project; to ensure the legality, scientificity and economy of the project; to promote the standardization and standardization of the construction of computer system and network engineering; It provides an important guarantee for the units undertaking information construction to compete in a fair, just and open environment.

2. Related concepts of computer system and network supervision

2.1 The concept of supervision
Supervision refers to that the relevant executors supervise and manage the relevant subjects of some behaviors according to certain behavior rules, and take certain ways to make the behavior subject meet the requirements of the behavior, and coordinate the behavior subject to achieve the expected purpose. These behaviors include organization, coordination and persuasion, etc. Supervision is a kind of name that supervises and inspects the computer system and finds out the omission, so that the computer system can better serve the customers[1].

2.2 The goal of computer system engineering supervision
Network engineering supervision is a kind of inspection subject that supervises and inspects every detail of computer engineering according to certain engineering management regulations and relevant legal provisions, so that computer engineering can be carried out smoothly. It strives to achieve the expected construction goal of computer engineering, because network supervision engineer can not directly participate in the construction of the project, to achieve the goal of the project, we can only carry out supervision and inspection on the expected investment and related quality of the project, so as to achieve the project quality and the expected goal. Supervision is the unit or individual who coordinates the project, and effectively controls the target group after the specific and scientific planning of the project, so as to make it meet the production standards. Supervision is the effective control and coordination of quality, progress and funds, so as to achieve the purpose of mutually conforming to the production standards[2].

2.3 The concept of computer system
A computer system is a collection of related components for information collection, processing, storage and transmission to support organizational decision and management. Computer system has two kinds of supporting structure, namely social structure and technical structure. Social structure is embodied in some functions of computer system and the value it can create. The emergence of social structure enables computer to support organization and management. It is a collection of a series of related sub functions. It defines the structure of the system according to the requirements of the computer, and then analyzes the results. Technical organization is the source of information element of computer system and the regeneration of storage information element. It includes information collection and processing, as well as storage and transmission. It is a combination of physical components and software. Computer system engineering is the establishment, upgrading and transformation of information network system, information resources and information system application in information engineering construction. There are three main functions: ① computer network system establishes a computer network system for information processing, transmission and exchange through science and technology. ② A system that collects, stores, and processes computer resources. ③ Effective analysis of all kinds of business management system[3].
3. Current situation analysis of computer system network engineering management

3.1 Initial stage
At present, China's computer network engineering supervision is in the initial stage, although the relevant laws and regulations and supervision and management provisions have been issued, but it is not perfect. According to the sampling survey conducted by securities, banks and meteorological departments with high degree of information application in China, the results show that for many enterprises, project supervision is only a concept, which has not been fully implemented, and it is still relatively new in the computer industry[4].

3.2 The system is not perfect
At present, China's computer industry in network project supervision, the system is not perfect, there is no corresponding supervision laws and regulations. The content of supervision is not rich enough. Compared with the well-known construction industry supervision, the network information supervision has no clear responsibilities in terms of charging standards, project supervision and workflow. Because the information technology itself started late in our country, is rising and developing, so it has a lot of things to develop and improve, so there is no perfect system for the supervision problems extended by the computer network, so it also belongs to the problem of slow development. Many computer industry supervision contents and standards need to be improved[5].

3.3 Supervision content differentiation
In computer system engineering, the design, construction and system integration of information engineering are completed in one section. Information system engineering supervises and inspects the capital investment, quality assurance and project progress of the whole information engineering. The network supervision of computer system has more contents of software development than the traditional construction supervision. It is related to the product design, packaging and development process[6].

4. Solutions to network supervision problems of computer system

4.1 Improve the contents and objectives of supervision work
The supervisor shall assist the enterprise to meet the requirements of the owner's computer system engineering. In the demand stage, the supervisor should accomplish the following goals: (1) the supervisor should take the owner's business objectives, the construction of computer system and the future target mode as the basis of supervision work. (2) The supervisor should effectively analyze the feasibility of the computer system project, understand the business problems and development status of the owner, confirm the functions of the computer system, understand the various resources to be used to achieve the goal of establishing the computer system, and the resource planning problems including information. (3) The network supervision of computer system should establish the application scope, relevant requirements and conditions for customers. For example, whether the security of the system meets the requirements of customers, the compliance with standards and the applicable standards of rules and regulations. (4) The supervision should clarify the needs of customers, determine the objectives of network supervision, and work according to the supervision contract, and the working methods should be appropriate[7].

4.2 Planning
In the design stage of the project, the supervisor should make a perfect and detailed setting for the overall planning. It is required to have the master plan formulated by the contractor, including basic contents. Formulate implementation rules for supervision. It is also necessary to analyze the system requirements of the contractor, supervise the whole construction process of the contractor, review the report of system requirements, and timely improve the problems found. We also need to review the
structural design of the system, comprehensively analyze and implement the construction of network engineering system project[8].

5. Conclusion
China's computer industry is in the initial stage of development, for the rise of network engineering supervision needs a long time of improvement and operation. In this paper, the construction of computer system is analyzed, the construction of computer system can not do without the support of talents, which requires the state and society to increase energy in computer personnel training. And better let the computer system network technology for the country's economic development services, to improve people's production and lifestyle services. As the supervision unit of computer system, it is necessary to standardize its own work rules carefully, do a good job of network supervision in all aspects and safely, change the working attitude and seriously implement the work, so that the computer network will develop faster and faster. For the healthy development of informatization construction in our city and the effective implementation of supervision mechanism in the construction of computer system and network engineering, it is suggested that the following work should be done well: strengthen the formulation of informatization policies, regulations and standards, create a good environment for informatization; actively carry out the research and calculation of information index system to improve the scientific decision-making and management level of informatization; Strengthen the standardized management of information engineering, pay attention to the education and training of computer system and network engineering supervision, and strengthen the publicity and popularization. The implementation of supervision system in the construction of computer system and network engineering is a wide range of research topics. This paper is only the first step, and it is a pioneering exploration. We sincerely invite experts to comment on the shortcomings. It is an important work to establish and improve the project supervision system for the construction of the information port project, and it is also the need for the development of information technology. Here, I suggest that we should continue to do a good job in the research on the soft topics of information construction in the future, such as: "Research on the qualification of the contractor of computer system and network engineering", "Research on the supervision standard of computer system and network engineering", etc, As well as the formulation of relevant laws and regulations, to make adequate preparations for the implementation of supervision in the information construction as soon as possible.

References
[1] Yuan Zhiwei. The application of computer network technology in water conservancy project construction management——Comment on "Application of Information Technology in Water Conservancy Project Construction Management" [J]. People's Yellow River, Vol.42, No.7, PP. After insert 4, 2020.
[2] Li Zhen. Thinking on supervision of computer network engineering [J]. China new communications,Vol.19, No.7, PP. 116, 2017.
[3] Zhao Rui, Li Hua. Discussion on supervision of computer network engineering [J]. Industry and Technology Forum,Vol.11, No.18, PP. 71-72, 2012.
[4] Gao Hongbo, Gu Jianrong. Supervision points of automatic fare collection system for urban rail transit [J]. Railway computer application,Vol.22, No.9, PP. 70-72, 2013.
[5] Xiang Zhengxue. Some thoughts on the cultivation of computer applied talents [J]. Western leather, Vol.39, No.10, PP. 167, 2017.
[6] Cui Dali. My opinion on the construction of management information system for engineering construction project management and supervision enterprises [J]. Gansu metallurgy,Vol.35, No.3, PP. 134-136, 2013.
[7] Wei Yongfei. Construction of computer system and network engineering supervision system [J]. Communication world, Vol.12, No.6, PP. 22-22, 23, 2015.
[8] Li Menghua. Analysis of key and difficult points in Expressway Mechanical and electrical engineering supervision [J]. Construction engineering technology and design, Vol.16, No.20, PP. 2083, 2018.