

Research on Archives Information Management Evaluation System

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Keywords: Evaluation System, Archives Information, Information Management

Abstract: With the rapid development of science and technology and the widespread application of information technology, the state and society have become more and more dependent on informatization, and more and more electronic archives have appeared in various units. How to ensure the security of these electronic archives has become a serious issue before us. Although China has put forward the goal of building an archival information security system, the risk assessment of archival information security based on a hierarchical protection system has not been put on the agenda. The security management of electronic archives information is a process, not a product. We cannot expect that all security problems can be solved by a security product. Only after adopting scientific and effective models and methods to conduct a comprehensive security evaluation of the archive management system, can we truly grasp the overall security status of the internal information system and analyze various existing threats in order to take effective security measures against high-risk threats and improve Overall security level, and gradually build a solid electronic archives information security management system. Foreign experience, domestic trials and policies have shown that information security risk assessment is an effective means and basic work for building an electronic archives information security management system.

1. Introduction

The security management of electronic archives information is a process, not a product. We cannot expect that all security problems can be solved by a security product. For the electronic file management system, the first problem to solve its security is to identify the risks faced by its own information system, including the degree of security threats and impacts that these risks may bring, and then carry out the fullest analysis and evaluation. Only by adopting scientific and effective models and methods for comprehensive security evaluation can we truly grasp the overall security status of the internal information system and analyze various existing threats in order to take effective security measures against high-risk threats, improve the overall security level, and gradually Build a solid electronic archives information security management system. The electronic archives information security management system should be a complete system, including not only security technology, but also security management, environmental security, system security and other aspects, so as to ensure the security of increasingly complex and huge archive information systems. And it is continuous. At present, foreign experience, domestic trials and policies have shown that information security risk assessment is an effective means and basic work for building an electronic archives information security management system.

2. Characteristics of Archive Information

Electronic archives information is derived from electronic archives. It is a true original record of various activities of human society such as production and life. It has a clear origin, which is also the fundamental difference between electronic archives information and other non-archival information. Although there are divergent opinions on the originality of electronic archives in the archives world, the author believes that electronic archives have original characteristics, but the originality and authenticity of electronic archives are vulnerable to various threats in the subsequent storage and utilization process.

Electronic records record and reflect the activities, events and processes that have occurred. Therefore, as a kind of historical record, the electronic archive information has a typical retrospectiveness, which has witnessed the development of human society, is the common memory of human beings, represents a part of human social cultural heritage, and is an extremely precious common wealth of human beings.

Electronic archives are successively formed in the form of a single file, and exist and move in the form of a combination of files. Therefore, the electronic archive information has obvious connection, which is manifested as the connection of the source, time, content and form. This connection makes the electronic archive information a historical and comprehensive study of the development of things, and for A variety of information requirements provide superior conditions.

Opposite to the characteristic of the electronic archives information is the non-systematic nature of electronic archives information, that is, decentralized. This is manifested in the following: macroscopically, the number of creators of electronic archives is numerous, the types are diverse, the levels are different, and the content of functions and activities varies widely. The breadth and dispersion of archive creators determines the breadth and dispersion of electronic archives' information content At the micro level, due to the procedural and staged characteristics of the social activities of the creators of electronic archives, the electronic archives of a certain activity of the creators are divided in time, dispersed in content, and become scattered and cluttered as a whole; In addition, due to the sharp increase in the number of electronic files, the number of electronic files is out of control and the quality is reduced. The electronic files are doped with a large number of electronic files that are of little or no value, which exacerbates the dispersion of electronic file information.

3. Construction of Archives Information Security Evaluation Index System

Science can reveal the laws of the development of things, as a guide for people to change the world. The establishment of an electronic archives information security index system must also reflect the actual and the nature of things, and the main factors affecting the electronic archives information security situation. Only by adhering to the scientific principle can the obtained information be reliable and objective, and the evaluation results be valid. In addition, the establishment of an indicator system should also comply with national laws and regulations on information and information system security. The evaluation index system should be classified according to the structure of the electronic archives information security system, and the indicators should be classified on this basis, so that the index system structure can be complete and clear. At the same time, there are many factors affecting the security of the electronic archives information system, and the index system must comprehensively reflect the security status of the system and comprehensively measure its security level. A single indicator can only reflect the security level of the electronic archives information system from a certain aspect, and cannot fully reflect the overall level of the security of the electronic archives information system. The evaluation index system should strive to fully reflect the safety level of the evaluation object, otherwise the evaluation will be invalidated, and the decision will be misleading.

The design of the evaluation index system should meet the principle of combining qualitative and quantitative, that is, on the basis of qualitative analysis, quantitative processing is also required. Quantitative indicators are conducive to accurate, scientific, and reasonable evaluation. For those indicators that are difficult to quantify, a scoring method can be used to approximate their quantification using expert opinions. In comprehensive evaluation, it is necessary to assign different scores and weights to each index for weighted summation, so the independence between each index is very important. There may be several indicators containing one aspect factor, so only the most representative indicators can be selected from it, so as not to cause conceptual duplication or interference with the weight given to each indicator, which will cause distortion of the comprehensive evaluation results.

The evaluation index should be simple, clear and convenient to use. Considering the quantification of the index and the ease and reliability of data acquisition, try to select those

parameters that are highly representative, practical, and convenient for statistics and quantification. The evaluation index must have good operability to ensure that the evaluation value is obtained accurately and quickly, so as to ensure the normal progress of the evaluation work. The number of indicators should be able to explain the problem, while ensuring the notarization of the indicators.

Electronic archives information security is a comprehensive discipline that involves archival science, computer science, network technology, communication technology, cryptography, information security technology, and information theory. Under the condition of modern technology, the security of electronic archives mainly means that the computer system's hardware, software, and data in its system are protected from accidental or malicious reasons that are damaged, changed, and leaked, and the system runs normally and continuously, Uninterrupted network services. Electronic archives information security should be characterized by the following 4 aspects: Confidentiality: Information is not disclosed to, or used by, unauthorized users, entities, or processes. Integrity: Data cannot be changed without authorization, and information is not modified, destroyed or lost during storage or transmission. Availability: can be accessed by authorized entities and used on demand. Controllability: the ability to control the spread and content of information. The evaluation of the status quo of electronic archives information security is a complex and systematic evaluation. It involves a lot of content and considers a wide range of factors. The security evaluation of the electronic file information system is to apply systematic engineering methods to the objective protection effects of various information system security protection measures, management mechanisms, and the combination of them, in accordance with a unified and standardized security level standard. The conclusion of whether it is safe. In essence, it is an evaluation and determination of whether the electronic archives information system has sufficient resistance to attack under various threats.

4. System Safety Evaluation Indicators

System security here refers to the security of the computer's entire operating system. Computer technology is a key factor that affects the security of electronic archives information. In the process of electronic archives information operation, technology plays a supporting role in ensuring its security. When processing information on a computer, hardware or software failures or misoperations, and sudden power outages can cause irreparable loss of information being processed. Therefore, we need to take a series of measures to ensure the stability of the system and ensure the security of information. Computer system security evaluation indicators are:

System operation log: It refers to text records such as daily on and off, and equipment operating status. The system operation log records the system operation status in detail, so as to analyze and trace the cause of system damage afterwards, and provide the system with further security and reliability. The security of a computer system depends on the weakest link in the system, and the weakest link in the system should be found in time to ensure the maximum security of the system. Computer and network security detection can detect loopholes or malicious attacks in the system in time, thereby achieving dynamic and real-time security control. The system security detection tool is usually a system security assessment and analysis software. Its function is to scan and analyze the computer or network system in a practical way, check and report the weaknesses and loopholes in the system, and recommend remedial measures and security strategies to enhance network security. the goal of. The operating system is closely attached to the bare metal to form a man-machine interface. It centrally manages system resources and controls the normal operation of various functional processes including user processes. It is the backbone of the normal operation of a computer system. Its security will directly affect the security of the entire computer system. The biggest flaw of the current operating system is that it cannot judge whether the running process is harmful. The operating system should establish certain relative identification standards, protect various users, including the operating system itself, and restrict the operation of harmful functional processes. Our commonly used NT server has low security in the default state. In order to improve its security level, the default configuration must be modified according to certain procedures to make it a more secure environment. The daily backup system is the detailed implementation details

of the system backup plan. Daily backups should be performed strictly in accordance with the system, otherwise the goals of the backup plan will not be achieved. In addition, you must carefully complete some management tasks, such as: regularly check to ensure the correctness of the backup; save the backup disk in a safe place offsite (such as a special disk library); choose the appropriate backup data according to the data increase and update speed. System backup not only backs up the data in the system, but also backs up the applications, database systems, user settings, system parameters and other information installed in the system. In addition, for electronic file information systems that go online, data needs to be backed up to servers and even the entire network to prevent disasters.

5. Conclusion

The issue of electronic archives information security is an important topic in the current archives research, and it has great practical significance in theory and practice. In recent years, research on information security at home and abroad has been relatively active, but the issue of electronic archives information security management, how to evaluate and quantify the security capabilities of electronic archives information security management systems is still in its infancy, and has not yet formed a systematic and comprehensive Large-scale research.

Acknowledgment

Fund Project: Supported by Youth Foundation of Shandong Agriculture And Engineering University in 2018 (QNSKY201811).

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