

Familiarity with information security management system

Hamid Nakhaie¹, Asma Esmail Zadeh²

¹Mahan Center, Islamic Azad University, Mahan, Kerman, Iran

²Department of IT, Kerman Branch, Islamic Azad University, Kerman, Iran

Abstract: It seems that various organizations with regard to the importance of their current information role need to a strong management to preserve the security of this information. Information security refers to information conservation and minimization of illegal access to them. Information security management system means information security is a part of global management system in an organization based on employment risks approach and its goal is initiation, implementation, control, checking, maintenance and improvement of information security. In this article we try to address information security management system and describe the kinds of threatening hazards information systems and provide an appropriate strategy to preserve every organization's information security.

Keywords: management , security , information , information security

1. Introduction

To obtain the different information and also preservation of it for every system are necessary for its survival. There had been discussions about finding out news and information from some times past and access to information or diffusion of information has destroyed that system. Today , given to this matter that information has been introduced as a profitable business , competitive , and investment instrument , many organizations seek out security systems to prevent disclosure of information and their own collection preservation . In this respect, a strong information system can be efficient for maintenance of information security in every organization. This system should be designed based on organization needs and the importance of information and it can be a protector to provide informational capitals. Information security management system (ISMS) is an appropriate instrument to design and control information security.

2. Management

By now, a number of definitions have been provided for the term of "management". Some of the most important definitions include:

- The art of doing tasks by the others
- Knowledge and art of efforts coordination and collaboration of organization's members and the use of resources to accomplish organizational goals.
- Planning , organizing , leadership , coordinating and control
- A process through which decision making is done .
- Playing the role of leader, information source, decision maker and gatekeeper for the members of organization. (kotnez ,2001). Functionally , management includes the task as planning , decision making , organizing , innovation , coordination , communications , leadership , motivation and control .Despite of strengths and weaknesses of this definition , but it seems more complete than the definitions that limit management to a specific characteristic or try to add a specific philosophical value to it .

However there are some definitions related to management given to its functions from the point of view researchers like Fayol and Giolic that are important. It appears that management science still cannot manage its own definition.

Management is a process of efficient and effective use of human and material resources in planning, organizing of resources and facilities that is accepted to accomplish to organizational goals based on value system and is controlled. Really, we should ask that how many do humans know about management? What to extent is management knowledge scientific? And whether management is a science or an art? Apart of management can be learned through educational management and the other part through on- the – job training. Indeed a part that is learned through training is called management science, and a part that causes to use of reserves in various conditions, is called the art of management. On the other hand "speech is the science to know and art is to can."

Security is the manner of relative leisure from threat or attack and to be in readiness for confronting any threat and attack.(Ashori, 2009). In classic persian, conceptions related to security were "caution" and "quarter" (Dehkhoda). To increase security, actions like protection, guard, control, reinforcement, restraint and insurance are done. if a person or a collection wants to reduce the individual's security or another collection, she / he uses the process as like boycott, weakening, disarmament, damage, disunity, and threat.

3. Information security

Information security consists of information preservation and minimization of illegal access to them (Jafari, 2008). It is the study of data preservation methods in computers and communication systems against illegal changes (Abdollahi, 1996 is the conservation of confidentiality, totality, and information accessibility. Additionally, this conservation includes genuineness, responsibility, validity, conformability and reliability of information.

4. Management of information security

Management of information security is a part of information management that determines the goals and security and studies the current obstacles to accomplish these goals and provides the necessary strategies

5. Information security management system (ISMS)

Information security management system (ISMS) consists of a part of global and general management system in an organization that is based on employment risks approach. And its goal is initiation, implementation, utilization, control, checking, maintenance and improvement of information security. Totally, Information security management system is a systematic approach with sensitive information management to preserve them. Information security is behind of installation a simple firewall or contracting with a security company. It is very important to coordinate various security activities with a common strategy in order to provide an optimal level of conservation (Poormand, 2008).

6. Threatening risks of information security

Threatening risks of information security are divided into two intentional and non – intentional risks. The intentional risks are those which attack information security of system with a previous program and a certain goal as like hackers' risk. The non-intentional risks are those that put system at risk because of human and labor force mistakes. These risks cause the largest rate of damage to an informational system. Also the risks resulted from Nature for example flood, earthquake, storm, ...are non – intentional threats. To reduce the current risks in systems, firstly we must provide a number of secure informational networks. This should include some security policies. An organization needs the following cases to implement a system:

- To determine security policy
- Enforcement of appropriate policies

- Real- time study of informational security statues after enforcement of security policy
- surveying and testing security of informational network
- improvement of organization's information security methods

7. The stages of implementation ISMS

Implementation of ISMS in an organization is done according to the following stages:

- Initialization
- Definition of information security management
- Documentation of information security policy
- Evaluation of risks
- Training and informing
- Readiness for verification
- continuous control and improvement

8. Requirements to design an informational security systems

- confidence : confidence of information healthy both in storage time and in the time of retrieval and to provide possibility for legal persons to use of information
- accuracy: information should be accurate both in accordance with transfer resource and in the time of its transfer and its review
- accessibility: legal people must access to information

9. Conclusion

It may seem difficult to use of information security system, but the use of it is necessary and it is costly but these expenditures have the most profits. This system results to provide sensitivity and the better control to conserve confidentiality of a system .In it , the role of training and general planning for human forces and prevent informational accidents is very important . This is possible only with support of managers of a collection. To attract support of managers to provide information security, its better provide an appropriate system. In this regard ISMS is a standard and suitable system for this purpose.

10. References

- [1] Asadi shali,adeleh, Information security management systems, Journal of Electronic Data Center and Journal, No. IV, Volume IV, Persian date Mordad 1384.
- [2] Pormand,ali, Standard for information securit ,www.imi.ir/tadbir
- [3] Nima,jafari, Information Security Management System plan to modify, design magazine, issue 189
- [4] Abdolahi,mohamad, Design and implementation services for secure computer networks, M.Sc. Thesis, Sharif University of Technology.
- [5] Korangi,heydarali, Fifth Conference on West Asia Network Research, Department of Electrical Engineering and Computer martyr Beheshti University, July 2009.