

SECURITY POLICIES APPROACHED BY VALUE ANALYSIS CONCEPTS

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This paper intends to redefine the role of the end users of the Internet facilities, in the process of creation of more secure transactions on the Internet, in respect of their privacy. In this context, the purpose is to introduce the use of end user (customer) value concept in the process of Security policy framework design.

Keywords: *security, privacy, Internet, value analysis, end users, requirements*

Introduction

Governments, private society and civil society are aware about the important role that widespread IT technologies and communications systems generalization play in the fundamental change of the each economic, social and administrative structure. The Informational Society is a unique chance to decrease the lag between the developing countries and the industrialized countries. One important issue which affects the widespread of the Internet and its facilities as a promoter of the Informational Society is the security of the cyber-space.

Internet Security Stakeholders

The main categories affected by the lack of Internet security could be:

- private sector stakeholders: corporations and businesses, business associations, professional bodies, individual business leader, financial institutions who develop appropriate infrastructures, provide access to local and global markets and can be used to promote rural development and enhance competitiveness, increase trade and investment, and can help

modernize the private sector through improved market access, sales, trade and knowledge of business trends;

- public sector stakeholders: ministers and advisors (executive), elected representatives (legislature), courts (judiciary), political parties, local government / councils who provide the regulatory framework and standards that are needed to ensure responsible, positive and productive use of Information and Communication Technologies and drive their development to levels where it can justify the investments;
- civil society stakeholders: media, schools and universities, social movements and advocacy groups, trade unions, households, national NGOs / NPOs, local Community, private foundations, youth organizations, community-based organizations, community activists, social service organizations, voluntary agencies, research Agencies who provide opportunities for people Information and Communication Technologies literacy and technical skills, promote sustainability of Information and

Communication Technologies, make greater use of both new and traditional Information and Communication Technologies as tool for development, promote the closing of the Information and Communication Technologies gender gap in terms of Access, Openness and Empowerment, foster Domestic Information and Communication Technologies use, integrate Information and Communication Technologies into larger rural development projects;

- international bodies: United Nations System (UN), World Bank, Regional Development Bank, International Agencies, International NGOs, International NPOs who mobilize funding for Information and Communication Technologies programs and projects, promote Global and Regional Networking and Awareness and build International e-Development Resource Network.

Only a part of the listed stakeholders could be included in the end users category.

Security and Internet usage

There are many national, regional, and global initiatives focusing on Internet security. Therefore, the opinion of the stakeholders emphasize that the security measures adopted until now are not enough in order to eliminate the end users awareness regarding security and privacy issues. As Kurbalija (2006) concludes, "the customers will be reluctant to provide confidential information online". The link between security concerns and online services usage is also enforced by research projects available online, which measure the influence of security awareness in the use of Internet services (Statistical Indicators Benchmarking the Information Society, 2004). The number of the persons who use the alternative services offered by Internet is one of the ways to benchmark the level of the Internet Government policy efficiency (Statistical Indicators Benchmarking the Information Society, 2004).

Internet security represents the practice of protecting and preserving private resources and information on the Internet (International Engineering Consortium, 2006). Privacy regulates the personal information which could be disclose when are required to do, by law or we in good faith believe that such action is necessary to comply with the law or with legal process; protect and defend our rights and property; protect against misuse or unauthorized use of our web site and content; or protect the personal safety or property of our users or the public.

Often, the security could be in conflict with privacy. The privacy is strictly linked by end users' perception. They are able to decide when these two Internet Government issues touch the equilibrium and to transform their willingness in effective use of online services. Studies show that people's concerns for privacy and confidentiality are greater than their concerns about security. The SIBIS Pocket Bock which is available online, states that "lack of trust will keep people from using it and lack of security will result in disappointments that will undermine trust" (Statistical Indicators Benchmarking the Information Society, 2004).

Security and trust on the Internet are high on the agenda as an issue to be solved in the development of the Information Society. Security and privacy are regulated at the national and international levels by the legal framework which is established by the authorities and its bodies. The situation today shows that the solution adopted until now are not able to solve all the problems concerning the security and the related issues. This situation generates the question: Are the most suitable stakeholders involved in the process of security development?

Proposals for a different approach of the security

A security policy oriented on the end users could be an alternative solution in order to reduce the security lacks. This proposal is a particular approach focused on some of the concepts of Value Analysis. In the center of this approach is the value of the final product, called customer value. The value is

given by the end users. Value Analysis, as a method of design described by Boehm (2000) fundamentally differs from the classic methods through the functional and systemic approach of the designed objective. The first step of the design process is to identify the needs which have to be fulfilled. Then, the specialists design the final form of the object/process that satisfies the identified needs.

In this particular case, value defines the relationship of the perceived benefits of security policy. The functions are attributes of the security policy that give their value. According to Value Analysis approaching, the value is given by the amount of its

functions. Agreeing upon Value Analysis (as an alternative of classic methodologies) actually means the acceptance of the challenges of integrating value consideration into all of the existing and emerging policy development principles and practices and of developing a framework in which they reinforce each. The usage of Value Analysis in defining security policy will put together recent results of research in customer value analysis, security and process improvement.

The determination of security value requirements is a process which involves two different categories of stakeholders as we can see in Figure 1.

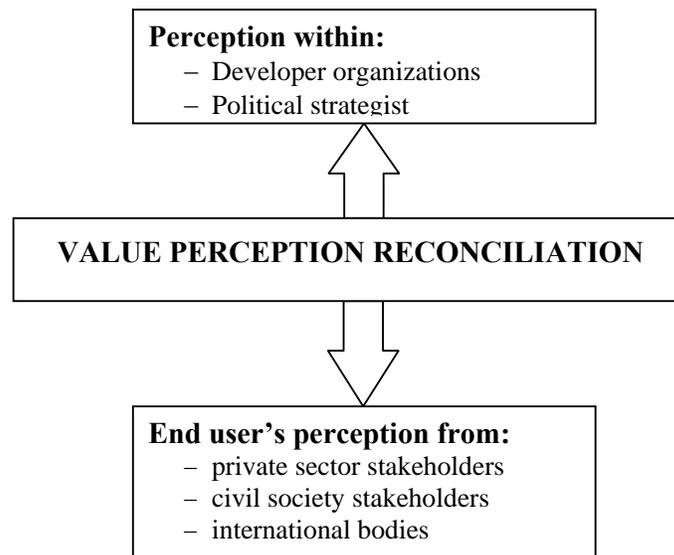


Figure 1: The process of value analysis based for security issues

For the persons responsible for security policy it is very important to understand exactly what the end users want and to know their value expectation. Another important factor in a security policy success is to understand the differences that appear in the perception of security value between the consumers and the political decisional factors. First of all, security policy responsible must be in contact with the end users that fit the targeted market. In order to identify their specific needs, they may use questioners or personal interviews. The focus groups are made of people from different

categories of the Internet users. The questions are focused on their perception about security, privacy and data protection and their requirements related these issues.

Conclusion

As Faulk et al. (2000) conclude the final stage is the reconciliation of consumers and politic strategists value perceptions in order to establish the functions which will be included in the security policy. Customers' opinion is weighed against politic strategists' point of view and will influence the Security policy outputs in order to increase its effects.

A Security policy based on Value Analysis concepts will provide new and creative solutions able to solve the requirements based on end users demands. Also, this is a way to strength the communication between the policy decision factors and the beneficiaries of their decisions. As Snodgrass (1986) shows the projects that used Value Analysis lead to remarkable performances. That is why this paper offers a new perspective for Security policy in order to get a better control of the related issues, simultaneously with better services for end users.

References:

- Boehm, B. (2000), *Value-Based Software Engineering. Software Engineering Notes vol. 28, No. 2. USA*;
- Faulk, S. R. at al. (2000), *Value-Based Software Engineering – A Value-Driven Approach to Product-Line Engineering. Proceedings of the First International Conference on Software Product-Line Engineering. Denver: Colorado*;
- *International Engineering Consortium, [online]. Available from:* (http://www.iec.org/online/tutorials/int_sec/) [Accessed August 16 June 2006];
- Kurbalija, J. (2006), *Internet Security. The current situation [online]. Available from:* <http://campus.diplomacy.edu/lms/ClassNav.asp?IDclass=52> [Accessed 25 June 2006], Malta: DiploFoundation;
- *Statistical Indicators Benchmarking the Information Society: Indicator Handbook, 2002/3 [online]. Available from:* <http://www.sibis-eu.org/handbook/handbook.htm> [Accessed 25 June 2006].
- Snodgrass T. L. (1986). *Function Analysis – the Keystone of an Optimal Value. Madison: Wisconsin.*
- Cretu, V. (2006). *Empowerment, Access to Knowledge and E-Education [online]. Available from:* <http://www.diplomacy.edu/ig/Research/display.asp?Topic=Research%20Themes#empowerment>