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Human Factors in Information Security

It is a well-known fact that there is no unbreakable system in the world. Nowadays, creating a secure information system is a big challenge. Besides, it is a desired goal for all IT security managers and engineers in the world. Why is it so hard to create a secure system? One of the answers is human factors.

As the results of IBM Managed Security Services' research show, in the field of information security more than 95% of all incidents are explained by the human factor. Infowatch website shows that around 50% of information leakage happens by accident. The biggest problem is that companies do not consider human factors as possible causes of the incident.

Human factor is the term, which describes the possibility of making wrong or illogical decisions in specific situations. It means that a person does the actions he/she regards as right or the most appropriate, but in fact, they are not.

The groups of human factors' causes are the following:

- lack of information support (special literature, instructions oriented for specific cases);
- lack of resources to implement decisions;
- external factors (distraction);
- errors caused by physical/psychological state of a person (impulsivity or slow response).

However, the most significant reasons of incidents are people's naivety and hindsight. When there are no attacks or threat, people do not expect to face them.

Some points for what can be done to make the level of human factors' risks lower are:

- to make a human risk analysis;
- to prioritize threats;
- to create security policies with regard to human factors;
- to inform and train staff;
- to show the importance of system's security to staff;
- to keep software and hardware updated.

To draw the conclusion, it should be emphasized that it is impossible to avoid human factors' risks completely. However, to minimize them and to be able to respond to such incidents are the ways of creating secure information systems.