Abstract

Recently security has become one of the major concern in Information System (IS) development. Different security modeling language or security extension is used to model security features of IS. Mal Activity Diagram (MAD) is used at the design stage to represent security aspect. But it cannot model all the security risk management concepts. Without full coverage of concepts, it is not possible to model an IS efficiently and correctly. In this paper, first we propose a meta model for MAD which will help developers or other stakeholders to understand and use MAD correctly. Then we propose syntactic and semantic extensions of MAD to model all the risk management concepts. We have used this meta model and extension in a case study. This study shows that the meta model and extensions help us to correctly identify and model different security components of the system.

References

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Towards Security Risk-oriented Mal Activity Diagram


Index Terms

Computer Science
Information Systems
Keywords
Requirement engineering  Risk management  Mal activity diagrams  Security modeling