一个软件服务协同中信任评估模型的设计

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Abstract

Internet-Based Web application systems are gradually built as software service coordination systems. In an open, dynamic and changeful application environment, trust is an important thing for security and reliability of software services and systems. In this paper, first an Agent-based software service coordination model is presented. Then a trust valuation model is given to value trust relationships between software services. Trust is abstracted as a function of subjective expectation and objective experience, and a reasonable method is provided to combine the direct experience and the indirect experience from others. In comparison with an other's work, a complete trust valuation model is designed, and its reasonability and operability is emphasized. This model can be used in coordination and security decision between software services.

摘要

基于Internet的Web应用系统逐步表现为由多个软件服务组成的软件服务协同系统,面向开放、动态和多变的应用环境,软件服务之间的相互信任对软件服务个体和应用系统的安全保障与可靠运行均具有重要的意义.首先给出一个基于Agent的软件服务协同模型,随后针对该软件服务协同模型提出一个用于度量软件服务间信任关系的信任评估模型.信任被抽象成一个由信任评估主体对客体的主观期望和客观经验共同作用的函数,模型还提供了一个合理的方法用于综合直接经验和第三方推荐经验.与几个现有的工作相比,设计了较完整的信任评估模型,并强调其合理性

和可操作性.信任评估模型可为软件服务之间的协同与安全决策提供依据.

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