

1. Record Nr.	UNINA9910824539803321
Autore	Ma Lu
Titolo	Security modeling and analysis of mobile agent systems // Lu Ma, Jeffrey J.P. Tsai
Pubbl/distr/stampa	London ; ; Hackensack, NJ, : Imperial College Press, c2006
ISBN	1-281-34755-8 9786611347550 1-86094-905-3
Edizione	[1st ed.]
Descrizione fisica	1 online resource (214 p.)
Collana	Series in electrical and computer engineering ; ; v. 5
Altri autori (Persone)	Tsai Jeffrey J.-P
Disciplina	006.3
Soggetti	Mobile agents (Computer software) Intelligent agents (Computer software)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Contents ; Preface ; 1 Introduction ; 1.1 Background ; 2 Mobile Agent System ; 2.1 Components of a Mobile Agent System ; 2.2 Characteristics and Advantages of a Mobile Agent System ; 3 Attacks and Countermeasures of Software System Security ; 3.1 General Security Objectives 3.2 Types of Attacks 3.2.1 Attacks against availability ; 3.2.2 Attacks against confidentiality ; 3.2.3 Attacks against integrity ; 3.2.4 Attacks against miscellaneous security objectives ; 3.3 Countermeasures of Attacks ; 3.3.1 Authentication ; 3.3.2 Access control 3.3.4 3.3.3 Audit and intrusion detection 3.3.4 Cryptography ; 3.3.5 Firewall ; 3.3.6 Anti- virus software ; 4 Security Issues in a Mobile Agent System ; 4.1 Security Issues in a Mobile Agent System ; 4.1.1 Possible attacks to a mobile agent system 4.1.1.1 Possible attacks to a mobile agent 4.1.1.2 Possible attacks to a mobile agent platform ; 4.1.2 Security requirements for a secure mobile agent system

; 4.2 Related Works ; 4.2.1 Existing mobile agent systems  
; 4.2.2 Security research  
4.2.2.1 Security measures for a mobile agent platform  
4.2.2.2 Security measures for a mobile agent  
; 4.2.3 Mobility modeling ; 4.2.4 Conclusions  
; 5 A New Formal Model - Extended Elementary Object System (EEOS)  
; 5.1 Object-Oriented Technology and Petri Nets  
5.2 Elementary Object System (EOS)

---

Sommario/riassunto

A mobile agent system could be attacked by malicious agents, platforms and third parties. Mobile agents simply offer greater opportunities for abuse and misuse, which broadens the scale of threats significantly. In addition, since mobile agents have some unique characteristics such as their mobility, security problems have become more complicated in these systems. These security problems have become a bottleneck in the development and maintenance of mobile agent systems, especially in security sensitive applications such as electronic commerce. This book introduces the concept and structure o

---