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Nota di contenuto	MARKET-ORIENTED GRID AND UTILITY COMPUTING; CONTENTS; CONTRIBUTORS; PREFACE; ACKNOWLEDGMENTS; ACRONYMS; PART I FOUNDATIONS; 1 Market-Oriented Computing and Global Grids: An Introduction; 2 Markets, Mechanisms, Games, and Their Implications in Grids; 3 Ownership and Decentralization Issues in Resource Allocation Mechanisms; 4 Utility Functions, Prices, and Negotiation; 5 Options and Commodity Markets for Computing Resources; PART II BUSINESS MODELS; 6 Grid Business Models, Evaluation, and Principles; 7 Grid Business Models for Brokers Executing SLA-Based Workflows 8 A Business-Rules-Based Model to Manage Virtual Organizations in Collaborative Grid Environments9 Accounting as a Requirement for Market-Oriented Grid Computing; PART III POLICIES AND AGREEMENTS; 10 Service-Level Agreements (SLAs) in the Grid Environment; 11 SLAs, Negotiation, and Challenges; 12 SLA-Based Resource Management and

Allocation; 13 Market-Based Resource Allocation for Differentiated Quality Service Levels; 14 Specification, Planning, and Execution of QoS-Aware Grid Workflows; 15 Risk Management In Grids; PART IV RESOURCE ALLOCATION AND SCHEDULING MECHANISMS 16 A Reciprocation-Based Economy for Multiple Services in a Computational Grid17 The Nimrod/G Grid Resource Broker for Economics-Based Scheduling; 18 Techniques for Providing Hard Quality-of-Service Guarantees in Job Scheduling; 19 Deadline Budget-Based Scheduling of Workflows on Utility Grids; 20 Game-Theoretic Scheduling of Grid Computations; 21 Cooperative Game-Theory-Based Cost Optimization for Scientific Workflows; 22 Auction-Based Resource Allocation; 23 Two Auction-Based Resource Allocation Environments: Design and Experience; 24 Trust in Grid Resource Auctions 25 Using Secure Auctions to Build a Distributed Metascheduler for the Grid26 The Gridbus Middleware for Market-Oriented Computing; INDEX

Sommario/riassunto

The first single-source reference covering the state of the art in grid and utility computing economy research This book presents the first integrated, single-source reference on market-oriented grid and utility computing. Divided into four main parts-and with contributions from a panel of experts in the field-it systematically and carefully explores: Foundations-presents the fundamental concepts of market-oriented computing and the issues and challenges in allocating resources in a decentralized computing environment. Business models-covers business mode
