1. Record Nr.   UNINA9910143882903321

   Titolo   Future Directions in Distributed Computing : Research and Position
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   Pubbl/distr/stampa   Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer,
                        , 2003

   ISBN   3-540-37795-6

   Edizione   [1st ed. 2003.]

   Descrizione fisica   1 online resource (X, 226 p.)

   Collana   Lecture Notes in Computer Science, , 0302-9743 ; ; 2584

   Disciplina   004/.36

   Soggetti   Architecture, Computer
                        Computer communication systems
                        Computer science
                        Computer programming
                        Software engineering
                        Operating systems (Computers)
                        Computer System Implementation
                        Computer Communication Networks
                        Computer Science, general
                        Programming Techniques
                        Software Engineering
                        Operating Systems

   Lingua di pubblicazione   Inglese

   Formato   Materiale a stampa

   Livello bibliografico   Monografia

   Note generali   Proceedings of the 2002 International Workshop on Future Directions in
                        Distributed Computing.

   Nota di bibliografia Includes bibliographical references and index.

   Nota di contenuto   Practical Impact of Group Communication Theory -- On the Impact of
                        Academic Distributed Systems Research on Industrial Practice -- Using
                        Error-Correcting Codes to Solve Distributed Agreement Problems: A
                        Future Direction in Distributed Computing? -- Lower Bounds for
                        Asynchronous Consensus -- Designing Algorithms for Dependent
                        Process Failures -- Comparing the Atomic Commitment and Consensus
                        Problems -- Open Questions on Consensus Performance inWell-
                        Behaved Runs -- Challenges in Evaluating Distributed Algorithms --
                        Towards Robust Optimistic Approaches -- Towards a Practical

Approach to Confidential Byzantine Fault Tolerance -- Modeling Complexity in Secure Distributed Computing -- Communication and Data Sharing for Dynamic Distributed Systems -- Dissecting Distributed Computations -- Ordering vs Timeliness: Two Facets of Consistency? -- WAIF:Web of Asynchronous Information Filters -- The Importance of Aggregation -- Dynamic Lookup Networks -- The Surprising Power of Epidemic Communication -- Topology-Aware Routing in Structured Peer-to-Peer Overlay Networks -- Uncertainty and Predictability: Can They Be Reconciled? -- Fuzzy Group Membership -- Toward Self-Organizing, Self-Repairing and Resilient Distributed Systems -- Dynamically Provisioning Distributed Systems to Meet Target Levels of Performance, Availability, and Data Quality -- Database Replication Based on Group Communication: Implementation Issues -- The Evolution of Publish/Subscribe Communication Systems -- Naming and Integrity: Self-Verifying Data in Peer-to-Peer Systems -- Spread Spectrum Storage with Mnemosyne -- Replication Strategies for Highly Available Peer-to-Peer Storage -- A Data-Centric Approach for Scalable State Machine Replication -- Scaling Optimistic Replication -- Building a Bridge between Distributed Systems Theory and Commercial Practice -- Holistic Operations in Large-Scale Sensor Network Systems: A Probabilistic Peer-to-Peer Approach -- Challenges in Making Pervasive Systems Dependable -- Towards Dependable Networks of Mobile Arbitrary Devices - Diagnosis and Scalability -- Technology Challenges for the Global Real-Time Enterprise -- Middleware for Supporting Inter-organizational Interactions -- Hosting of Libre Software Projects: A Distributed Peer-to-Peer Approach -- System Support for Pervasive Applications -- Technology Challenges for the Global Real-Time Enterprise -- Middleware for Supporting Inter-organizational Interactions -- Hosting of Libre Software Projects: A Distributed Peer-to-Peer Approach -- System Support for Pervasive Applications.

Sommario/riassunto	This book presents a collection of 31 revised reviewed papers developed from contributions presented at the International Workshop on Future Directions in Distributed Computing, held in Bertinoro, Italy in June 2002. Also included are 7 particularly commissioned invited papers to round the coverage of relevant topics and four section surveys. The papers are organized in topical sections on foundations of distributed systems, exploring next-generation communication infrastrucutures and applications, challenges in distributed information and data management, and challenges and opportunities in applications of distributed computing technologies. All in all, the book is a unique account and proposed agenda of issues to be addressed in future research in distributed computing.