Record Nr. UNINA9910298968103321 Cloud Computing: Challenges, Limitations and R&D Solutions // **Titolo** edited by Zaigham Mahmood Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2014 **ISBN** 3-319-10530-2 Edizione [1st ed. 2014.] Descrizione fisica 1 online resource (363 p.) Collana Computer Communications and Networks, , 1617-7975 Disciplina 004.6782 Soggetti Computer communication systems Computer security Management information systems Computer science Database management Computer Communication Networks Systems and Data Security Management of Computing and Information Systems Database Management Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Nota di contenuto Part I: Limitations and Challenges of Cloud Environments -- Attacks in Public Clouds -- Distributed Database Management Systems -- Quality of Service and Service Level Agreements for Cloud Environments -- Part II: Current Developments and R&D Solutions -- A Methodology for Cloud Security Risk Management -- SecDSIM -- CloudReports -- Cloud Computing: Efficient Congestion Control in Data Center Networks --Energy-Aware Virtual Machine Consolidation in IaaS Cloud Computing -- Software-Defined Networking (SDN) for Cloud Applications -- Part III: Advances in Cloud Technologies and Future Trends -- Virtualization and Cloud Security -- Quality-of-Service Data Warehouse for the

Selection of Cloud Services -- Characterizing Cloud Federation

Approaches -- Security Aspects of Database-as-a-Service (DBaaS) in Cloud Computing -- Beyond the Clouds: How Should Next Generation

Utility Computing Infrastructures Be Designed?

Sommario/riassunto

This important text/reference reviews the challenging issues that present barriers to greater implementation of the cloud computing paradigm, together with the latest research into developing potential solutions. Exploring the strengths and vulnerabilities of cloud provision and cloud environments, Cloud Computing: Challenges, Limitations and R&D Solutions provides case studies from a diverse selection of researchers and practitioners of international repute. The implications of emerging cloud technologies are also analyzed from the perspective of consumers. Topics and features: Presents a focus on the most important issues and limitations of cloud computing, covering cloud security and architecture, QoS and SLAs Discusses a methodology for cloud security management, and proposes a framework for secure data storage and identity management in the cloud Introduces a simulation tool for energy-aware cloud environments, and an efficient congestion control system for data center networks Examines the issues of energyaware VM consolidation in the laaS provision, and software-defined networking for cloud related applications Reviews current trends and suggests future developments in virtualization, cloud security, QoS data warehouses, cloud federation approaches, and DBaaS provision Predicts how the next generation of utility computing infrastructures will be designed The insights provided by this practically-focused collection will be of great benefit to students, lecturers and researchers interested in the state of the art of cloud computing. Software developers, infrastructure managers, and other cloud practitioners will also find the book to be a helpful guide.