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Autore	Berger Stephen
Titolo	Infectious diseases of Bulgaria / / Stephen Berger ; cover design by GIDEON Informatics, Inc
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Descrizione fisica	1 online resource (315 pages) : color illustrations, tables
Collana	Gideon E-Book Series
Disciplina	616.9
Soggetti	Communicable diseases - Bulgaria Communicable diseases Bulgaria
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.

2. Record Nr.	UNINA9910788199103321
Autore	Yang Yun
Titolo	Reliability assurance of big data in the cloud : cost-effective replication-based storage // Yun Yang, Dong Yuan, Wenhao Li ; Todd Green, acquiring editor ; Mark Rogers, designer
Pubbl/distr/stampa	Waltham, Massachusetts : , : Morgan Kaufmann, , 2015 ©2015
ISBN	0-12-802668-5
Edizione	[1st edition]
Descrizione fisica	1 online resource (107 p.)
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Soggetti	Cloud computing Big data
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.
Nota di contenuto	Cover; Title page; Copyright Page; Contents; About the Authors; Preface; Acknowledgments; Chapter 1 - Introduction; 1.1 - Data reliability in the Cloud; 1.2 - Background of Cloud storage; 1.2.1 - Distinctive features of Cloud storage systems; 1.2.1.1 - On-demand self-service and pay-as-you-go pricing model; 1.2.1.2 - Redundant and scalable virtualized resources; 1.2.1.3 - Dedicated Cloud network; 1.2.1.4 - Big data; 1.2.2 - The Cloud data life cycle; 1.2.2.1 - Data creation; 1.2.2.2 - Data maintenance; 1.2.2.3 - Data recovery; 1.2.2.4 - Data deletion; 1.3 - Key issues of research 1.4 - Book overview Chapter 2 - Literature review; 2.1 - Data reliability assurance in hardware; 2.1.1 - Disk; 2.1.1.1 - Disk failure modes; 2.1.1.1.1 - Partial disk failures; 2.1.1.1.2 - Permanent disk failures; 2.1.1.2 - Disk reliability metrics; 2.1.1.3 - Disk reliability patterns; 2.1.2 - Other storage medias; 2.2 - Data reliability assurance in software; 2.2.1 - Replication for data reliability; 2.2.2 - Erasure coding for data reliability; 2.3 - Data transfer for distributed systems; 2.4 - Summary; Chapter 3 - Motivating example and problem analysis; 3.1 - Motivating example 3.1.1 - The pulsar searching application process 3.1.2 - The pulsar searching application data flow; 3.1.3 - Storing pulsar searching data in the Cloud; 3.2 - Problem analysis; 3.2.1 - Two major factors of Cloud

storage cost; 3.2.2 - Data storage devices and schemes; 3.2.3 - Cloud network and data transfer activities; 3.2.3.1 - Case for data maintenance within the data center; 3.2.3.2 - Case for data processing within the data center; 3.2.3.3 - Case for across data centers with DCI activities; 3.2.4 - Research issues; 3.2.4.1 - Data reliability model 3.2.4.2 - Minimum replication calculation and benchmark 3.2.4.3 - Cost-effective data reliability assurance mechanism; 3.2.4.4 - Cost-effective data transfer strategy for data creation and data recovery; 3.3 - Summary; Chapter 4 - Generic data reliability model in the cloud; 4.1 - Properties of the data reliability model; 4.1.1 - Reliability metrics; 4.1.2 - Data reliability model type; 4.1.3 - Failure rate pattern of storage devices; 4.2 - Generic data reliability model; 4.2.1 - Data reliability with static disk failure rate; 4.2.2 - Data reliability with variable disk failure rate 4.2.3 - Generic data reliability model for multi-replicas 4.3 - Summary; Chapter 5 - Minimum replication for meeting the data reliability requirement; 5.1 - The minimum replication calculation approach; 5.1.1 - Minimum replication calculation formulas; 5.1.2 - Optimization of the minimum replication calculation formulas; 5.2 - Minimum replication benchmark; 5.3 - Evaluation of the minimum replication calculation approach; 5.4 - Summary; Chapter 6 - Cost-effective data reliability assurance for data maintenance; 6.1 - Proactive replica checking; 6.2 - Overview of PRCR; 6.2.1 - User interface 6.2.2 - PRCR node

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## Sommario/riassunto

With the rapid growth of Cloud computing, the size of Cloud data is expanding at a dramatic speed. A huge amount of data is generated and processed by Cloud applications, putting a higher demand on cloud storage. While data reliability should already be a requirement, data in the Cloud needs to be stored in a highly cost-effective manner. This book focuses on the trade-off between data storage cost and data reliability assurance for big data in the Cloud. Throughout the whole Cloud data lifecycle, four major features are presented: first, a novel generic data reliability model for describing

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