1. Record Nr. UNINA9910809592203321 Autore Marinescu Dan C Titolo Cloud computing: theory and practice / / Dan C. Marinescu Pubbl/distr/stampa Boston, : Morgan Kaufmann, 2013 Waltham, MA:,: Morgan Kaufmann,, 2013 **ISBN** 978-0-12-404627-6 0-12-404641-X Edizione [1st ed.] Descrizione fisica 1 online resource (xvii, 396 pages): illustrations (some color) Collana Gale eBooks Disciplina 004.67/82 Soggetti Cloud computing 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 Machine generated contents note: 1: Introduction to Cloud Computing 2: Network-centric computing and network-centric content 3: Basic Concepts 4: Cloud Infrastructure 5: Cloud Computing 6: Virtualization 7. Resource Management 8: Networking support for cloud computing 9: Cloud Security 10: Complex Systems and Self-Organization 11: Cloud Application Development. Sommario/riassunto "The first chapter gives an overview of cloud computing at a level accessible to a lay person. To motivate the reasons for a paradigm shift in the way we compute and store information, we introduce the concept of network-centric computing and network-centric content. A brief discussion of peer-to-peer systems, a first step in the shift from local to remote data storage and processing follows. The chapter continues with a discussion of technological advances that have made cloud computing possible and of the economical reasons why this new paradigm is attractive for many users and applications. Then we take a closer look at the cloud computing delivery models. Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (laaS). SaaS gives the users capability to use applications supplied by the service provider but allows no control of the platform or the infrastructure. PaaS gives the capability to deploy consumercreated or acquired applications using programming languages and

tools supported by the provider. laaS allows the user to deploy and run

arbitrary software, which can include operating systems and applications. The new paradigm raises ethical questions and has significant vulnerabilities each dissected in separate sections. Finally, the chapter presents the major challenges faced by this new paradigm. The chapter concludes with a overview of the literature and with a historic perspective"--