Record Nr. UNINA9910412147503321 Autore Lynn Theo **Titolo** Managing Distributed Cloud Applications and Infrastructure: A Self-Optimising Approach / / edited by Theo Lynn, John G. Mooney, Jörg Domaschka, Keith A. Ellis 2020 Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Palgrave Macmillan, , 2020 **ISBN** 9783030398637 3030398633 Edizione [1st ed. 2020.] Descrizione fisica 1 online resource (XXIII, 163 p. 62 illus.) Collana Palgrave Studies in Digital Business & Enabling Technologies, , 2662-1290 Classificazione BUS087000COM059000COM064000 Disciplina 658.514 658.872 Soggetti Technological innovations Electronic commerce Computer engineering Computer networks Innovation and Technology Management e-Commerce and e-Business Computer Engineering and Networks Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Chapter 1 -- Towards an Architecture for Reliable Capacity Provisioning for Distributed Clouds -- Chapter 2 -- RECAP Data Acquisition and Analytics Methodology -- Chapter 3 - Application Optimisation: Workload Prediction and Autonomous Autoscaling of Distributed Cloud Applications -- Chapter 4 - Application Placement and Infrastructure Optimisation -- Chapter 5 - Simulating Across the Cloud-to-Edge Continuum -- Chapter 6 - Case Studies in Application Placement and Infrastructure Optimisation. Sommario/riassunto The emergence of the Internet of Things (IoT), combined with greater heterogeneity not only online in cloud computing architectures but across the cloud-to-edge continuum, is introducing new challenges for

managing applications and infrastructure across this continuum. The scale and complexity is simply so complex that it is no longer realistic for IT teams to manually foresee the potential issues and manage the dynamism and dependencies across an increasing inter-dependent chain of service provision. This Open Access Pivot explores these challenges and offers a solution for the intelligent and reliable management of physical infrastructure and the optimal placement of applications for the provision of services on distributed clouds. This book provides a conceptual reference model for reliable capacity provisioning for distributed clouds and discusses how data analytics and machine learning, application and infrastructure optimization, and simulation can deliver quality of service requirements cost-efficiently in this complex feature space. These are illustrated through a series of case studies in cloud computing, telecommunications, big data analytics, and smart cities.