Record Nr. UNINA9911018839103321 Systems of systems / / edited by Dominique Luzeaux, Jean-Rene Ruault Titolo London, : ISTE Pubbl/distr/stampa Hoboken, N.J.,: Wiley, 2010 **ISBN** 9781118619742 1118619749 9781118557495 1118557492 9781299315495 1299315496 9781118619803 1118619803 Edizione [1st edition] 1 online resource (550 p.) Descrizione fisica Collana ISTE Altri autori (Persone) LuzeauxDominique RuaultJean-Rene Disciplina 620.001/171 Soggetti Systems engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali First published 2008 in France by Hermes Science/Lavoisier in two volumes entitled: Systemes de systemes : concepts et illustrations protiques and Ingenierie des systemes de systemes : methodes et outils. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto pt. 1. Systems of systems, concepts and practical illustrations -- pt. 2. Systems of systems engineering, methods, standards and tools. In recent decades, the systems designed in the fields of banking, Sommario/riassunto health, transportation, space, aeronautics, defense, etc. have been becoming increasingly larger. With the growing maturity of information and communication technologies, systems have been interconnected within growing networks, yielding new services through the combination of the system functionalities. This has led to an increasing complexity that has to be managed in order to take advantage of these system integrations. Part 1: Systems of systems: concepts and practical illustrations is a multidisciplinary work on the concept of the systemsof-systems that is discussed extensively in current literature. After a critical comparison of the different definitions and a range of various practical illustrations, it provides key answers as to what a system of systems is and how its complexity can be mastered. Part 2: Systems-of-systems engineering: methods and tools focuses on both engineering and modeling, and standardization issues which are critical in order to deal with the key steps of systems-of-systems engineering: elicitation of stakeholders needs, architecture optimization, integration of constituent systems, qualification and utilization.