Record Nr. UNINA9910822367903321 Autore Van Schewick Barbara Titolo Internet architecture and innovation / / Barbara van Schewick Pubbl/distr/stampa Cambridge, MA, : MIT Press, 2010 **ISBN** 0-262-26557-5 1-282-73695-7 9786612736957 0-262-26586-9 Edizione [1st ed.] Descrizione fisica 1 online resource (587 p.) Disciplina 004.6/5 Soggetti Internet Computer network architectures Technological innovations Business - Data processing Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Intro -- Contents -- Acknowledgments -- Introduction -- I Foundations -- 1 Architecture and Innovation -- II The End-to-End Arguments and the Original Architecture of the Internet -- 2 Internet Design Principles -- 3 The Original Architecture of the Internet -- III Architectural Constraints on Innovation -- 4 Architecture and the Cost of Innovation -- 5 Architecture and the Organization of Innovation -- 6 Architecture and Competition among Makers of Complementary Components -- IV The End-to-End Arguments and Application Innovation -- 7 Network Architectures and the Economic Environment for Application Innovation -- 8 Decentralized versus Centralized Environments for Application Innovation -- 9 Public and Private Interests in Network Architectures -- Conclusion -- Notes --References -- Index. Sommario/riassunto Today--following housing bubbles, bank collapses, and high unemployment--the Internet remains the most reliable mechanism for

fostering innovation and creating new wealth. The Internet's

remarkable growth has been fueled by innovation. In this pathbreaking book, Barbara van Schewick argues that this explosion of innovation is

not an accident, but a consequence of the Internet's architecture--a consequence of technical choices regarding the Internet's inner structure that were made early in its history. The Internet's original architecture was based on four design principles: modularity, layering, and two versions of the celebrated but often misunderstood end-toend arguments. But today, the Internet's architecture is changing in ways that deviate from the Internet's original design principles, removing the features that have fostered innovation and threatening the Internet's ability to spur economic growth, to improve democratic discourse, and to provide a decentralized environment for social and cultural interaction in which anyone can participate. If no one intervenes, network providers' interests will drive networks further away from the original design principles. If the Internet's value for society is to be preserved, van Schewick argues, policymakers will have to intervene and protect the features that were at the core of the Internet's success.