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Nota di contenuto	Flow-Oriented Approaches -- Flow-Aware Networking -- Flow-Aware Networking for Net Neutrality -- Congestion Control in Flow-Aware Networks -- Fairness in Flow-Aware Networks -- FAN in Case of Failure -- Service Differentiation in FAN -- Service Degradation in FAN -- Implementation of Cross-Protect Router -- Summary -- Answers.
Sommario/riassunto	The book presents a comprehensive view on Flow-Aware Networking. It starts with a brief overview of the known QoS architectures based on the concept of a flow. Then, the original FAN concept is presented, along with its variations proposed by the authors. The next chapter covers a very valuable feature of the FAN architecture, namely its ability to assure net neutrality. The chapters that follow will discuss, in detail, a variety of issues making the FAN concept implementable, including congestion control, fairness, resilience to failures, service differentiation and degradation. The final chapter presents the test implementation of the FAN router, including the environment used and performance tests. Chapters are supplemented with problems to solve, along with their solutions. The pedagogical character of the book is supported by a number of illustrative examples contained in most of the chapters. At the end of the book, a glossary of the key terms is included, along with a comprehensive bibliography. Flow-based traffic management is currently becoming a mainstream. There is plenty of Quality of Service (QoS) techniques based on flows. Software-Defined Networking with its dominant protocol OpenFlow also follows this

trend. Flow-Aware Networking (FAN) is a promising QoS architecture. Information on FAN can be found in various research papers. It is, therefore highly scattered. This book gathers practically all relevant information regarding FAN and puts it together. Quality of Service assurance is one of the key challenges of today's Internet. The existing approaches to provide QoS do not meet expectations of network operators, managers and users although numerous efforts in this area have been reported. One of the most promising concepts is the Flow-Aware Network (FAN). FAN can play a key role in assuring the net neutrality, smoothly combining interests of all the involved parties. The authors of the proposal have been involved in FAN research practically since its inception at the start of the 21st century. The book reports the wide experiences the authors accumulated in the subject area during the work on common FAN-related projects conducted with the team of James Roberts that proposed the original FAN concept as well as other leading research groups in Europe and the USA. One of the aims of the book is to accompany courses taught by the authors.