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Titolo	Reconfigurable mobile radio systems [[electronic resource] ] : a snapshot of key aspects related to reconfigurability in wireless systems / / edited by Guillaume Vivier
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Nota di contenuto	Reconfigurable Mobile Radio Systems; Table of Contents; Introduction; Chapter 1. Services and Adaptive Uses; 1.1. New networks and new uses; 1.1.1. Broadband mobile radio systems: why do it?; 1.1.2. From Internet services on a voice network to voice services on an Internet network; 1.1.3. From telephony to interpersonal communication; 1.1.4. From charged to free: the value evolution; 1.1.5. From the end-to-end controlled session to the best effort culture; 1.1.6. The new services of the new networks; 1.2. Mobile communications customers; 1.2.1. Mobile service user: a communicating customer 1.2.2. The successful teachings of mobile telephony and the Internet for the new generation services1.2.3. The communicating customer and his values; 1.2.3.1. Compatibility with the present and its practices; 1.2.3.2. Membership and availability; 1.2.3.3. Cost optimization; 1.2.3.4. Security; 1.2.4. Mobility based acceleration; 1.2.4.1. Terminal size and its interaction modes; 1.2.4.2. Multi-network environment; 1.2.4.3. Service heterogenity; 1.2.5. Adaptability as a mobility value;

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	<ul> <li>1.3. Technological and adaptability factors of mobile services; 1.3.1. A microcomputer inside each pocket</li> <li>1.3.2. An Internet or a juxtaposition of intranets?1.3.3. On the convergence of universal sets or how to contact a person; 1.3.4. Proximity as a way to address the mobile services; 1.3.5. The jungle of networks or how can we communicate in a hostile environment?; 1.3.6. How can we carry our home in our pocket?; 1.4. Conclusion: "I am a nomad in at least five different ways"; 1.4.1. A new challenge: reconciling the incompatible; 1.4.2. A combination of new technologies and new economic models; Chapter 2. Object Modeling and Software-defined Radio; 2.1. Introduction</li> <li>2.1.1. History of the software industry2.1.2. Object modeling; 2.1.3. Modeling and data flow; 2.1.4. Constituent model; 2.1.5. Software bus;</li> <li>2.1.6. Product line; 2.2. Applicability of the component-based approach to the field of software-defined radio; 2.2.1. Software-defined radio; 2.3.1. Execution time constraints; 2.3.2. Software - hardware coupling constraints; 2.3.3. Reminder on the evolution of software technologies; 2.3.4. Regulatory constraints</li> <li>2.3.5. Deployment constraints2.4. An outline of the works pertaining to the component-based approach for software-defined radio; 2.4.1. SPEAKeasy and JTRS; 2.4.2. The weight of the USA; 2.4.3. The impact of JTRS on industrial sector technologies; 2.4.4. Communication software architecture; 2.4.5. Hardware architecture; 2.4.6. Standardizing activities; 2.4.7. UML profile for software-defined radio; 2.4.7.1. Resources metamodel for software-defined radio; 2.4.7.2. Model of peripheral component; 2.4.7.3. Communication channel; 2.4.8. Scope of the UML model; 2.4.9. The OMPT approach</li> </ul>
Sommario/riassunto	Different aspects of the reconfigurability of mobile radio systems are analyzed in this book. These include services, object modeling applied to software radio, flexible spectrum management, trade-offs for building a reconfigurable terminal, an example of a pure software radio modem, adaptive MIMO techniques and analog-to-digital converters.