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Sommario/riassunto

Uniquely presents tactical wireless communications and networks from an open architecture model perspective Providing a complete description of modern tactical military communications and networks technologies, this book systematically compares tactical military communications techniques with their commercial equivalents, pointing out similarities and differences. The author methodologically leads readers through this complex topic; first providing theoretical background on the protocol stack layers as they relate to tactical wireless communications and networking, second cover legacy, current and future tactical radio, and then going into detail on the open architecture challenges. The book covers legacy non-IP tactical radios, IP-based tactical Mobile Ad-hoc NETwork (MANET) radios, the place of cognitive radios in future tactical communications, as well as the use of core networks in the tactical theatre. Also presented are the Joint Tactical Radio Systems (JTRS) and other waveforms in the larger context of the Global Information Grid (GIG). This in-depth coverage enables readers to reflect on the security and Network Operations (NetOps) challenges, the need for cross layer signalling, the hypothesis of merging some protocol stack layers, and the techniques that are unique to tactical communications and networking, allowing them to move on to further practical and theoretical considerations. Key Features: . Covers the current state of tactical networking as well as the

future long term evolution of tactical wireless communications and networking in the next 50 years. Furnished throughout with illustrations and case studies to clarify the notional and architectural approaches. Written at an advanced level with scope as a reference tool for engineers and scientists as well as a graduate text for advanced courses.