

Security Issues & Countermeasures for Wireless Computer Networks

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The ease and versatility of mobile communications is attracting more and more applications every day. This is evident in the growing popularity of Mobile TV, Mobile Games, Mobile Entertainment, and others. The phrase “Quadruple Play” has been adopted to reflect the significance of “Mobility” along with the “Triple Play” elements of “Data”, “Voice”, and “Video”. The main enabler for mobility is “Wireless Communication”, and its deployment necessitates the handling of a number of challenges including “Support of High Bandwidth Services” and “Mitigating Security Threats”. Among the typical examples of Wireless Communication Systems that are providing mobile services are : Cellular Mobile Systems (GSM), Wireless LANs (WiFi), Bluetooth, and Wireless Sensor Networks (WSN). In the present paper, we highlight several security threats that are encountered in such systems, typical security services that are needed to circumvent these threats, and research areas that are open for further investigation.