

A LIGHTWEIGHT RECONFIGURABLE SECURITY MECHANISM FOR G MOBILE DEVICES

ABSTRACT

*Wireless communications are advancing rapidly. We are currently at the verge of a new revolutionary advancement in wireless data communications with the 3rd generation of mobile telecommunications. This generation promises to converge mobile technology with Internet connectivity. Wireless data multimedia applications and integrated services will be among the major driving forces behind it. While wireless communications provide great flexibility and mobility they often come at the expense of security. This is because wireless communications rely on open and public transmission media that raise further security vulnerabilities in addition to the security threats found in regular wired networks. Existing security schemes in current systems are inadequate as there is a greater demand to provide a more flexible reconfigurable and scalable security mechanism that can evolve as fast as mobile hosts are evolving into intelligent enabled devices. We propose a lightweight component-based reconfigurable security mechanism to enhance the security capabilities of mobile devices.**

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INTRODUCTION

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TINY SESAME

* This research was funded in part by the Motorola Center for Communications at the University of Illinois at Urbana-Champaign and

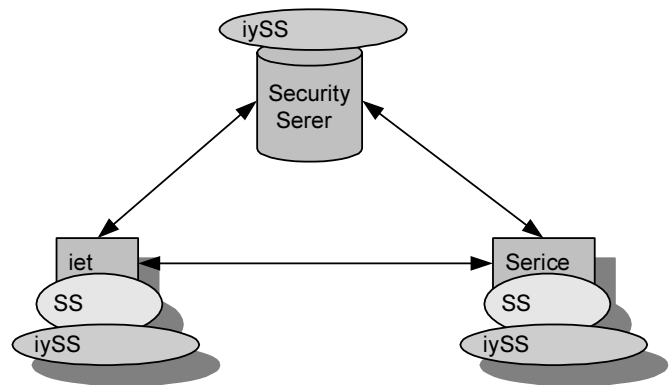


Figure 1.1

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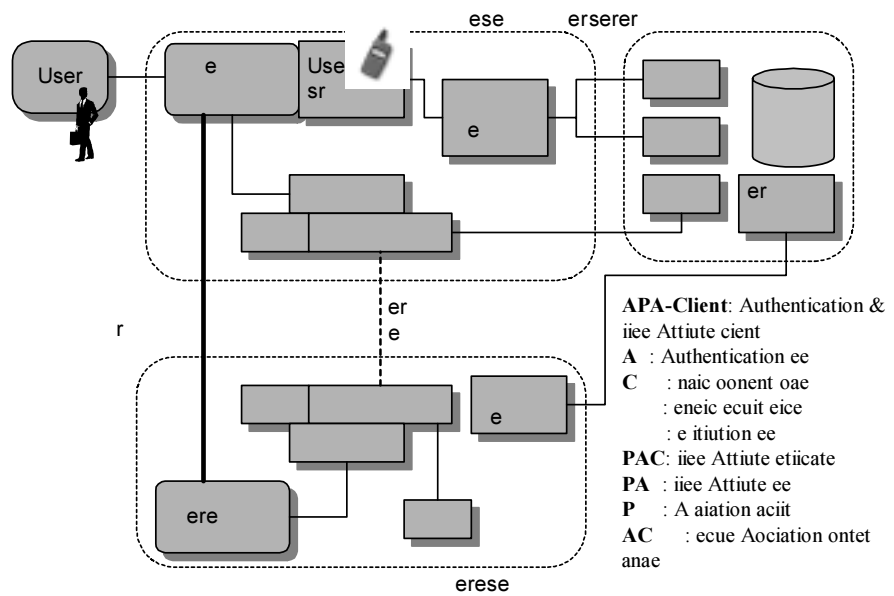


Figure 1.2

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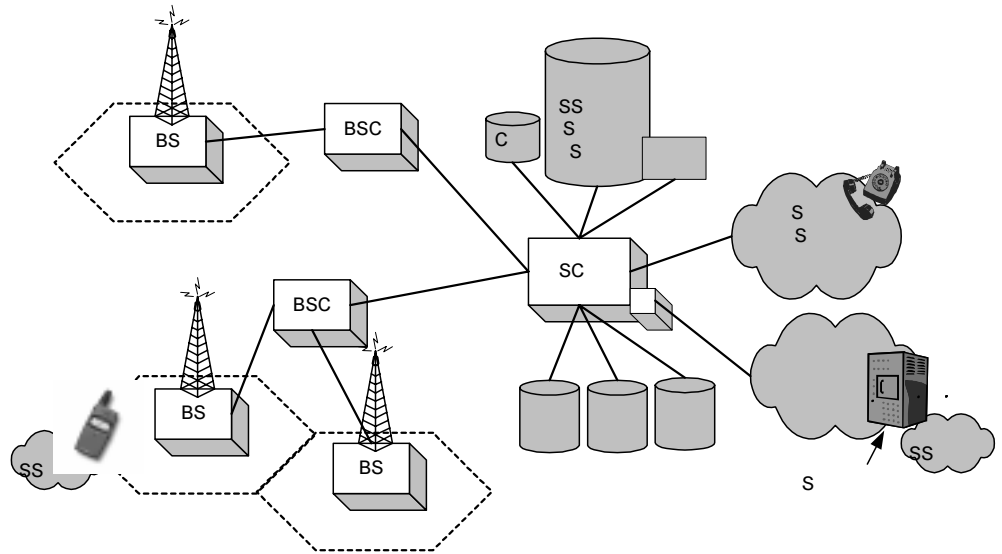


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¹ The results are obtained under the assumption that the propagation delay between the mobile unit and the is ms and the propagation delay between the and is ms with a maximum bandwidth of bps wireless network

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