

# **QoS AND MOBILE TECHNOLOGIES**

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## CHAPTER 32

### MOBILITY MANAGEMENT AND CONTEXT TRANSFER

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#### 32.1 INTRODUCTION

Internet and computer Network has become an essential part of our daily life and almost supporting various aspect of our daily life. The network start by supporting fix terminal computer however it start gradually to support mobile users which become very popular recently due to the flexibility and advantage associated with movement and relocation. Since the internet connection is based on IP Address a mobile node will be connected as long as it on it network when a mobile node changes it point of attachment new IP address is assigned to it. As such to continue communicating with other node an arrangement need to be considered [1] [2]. The chapter present a review for mobility managements and context transfer requirements.

#### 32.2 QOS AND WIRELESS MOBILITY

QoS parameters for typical applications include bounds for bandwidth, packet delay, packet loss rate, and jitter. In this section, we consider major differences between wireless and wired worlds in terms of some QoS parameters [3]. Bandwidth is often the most obvious difference between the wired and wireless worlds, wireless network being much slower than the wired counterpart. Wireless networks typically have considerably longer delay than the wired counterparts. The BER is often better than  $1$  to  $10^{-5}$  even in worst case wired systems such as modems over phone lines. Wireless usage figures are often worse by at least an order of magnitude, resulting in BER of  $1$  to  $10^{-4}$  or worse. Wireless communication is also affected by the fact that the mobile units run on batteries. If the battery goes low, packet transmission to the unit is curtailed by the RER using its power profile. [4]

##### 32.2.1 Mobility

Maintaining a reservation while a mobile Node is moving between regions is challenging because of possible blackout situations during handoff. A scheme is required to define how smooth this transition should be since it affects the QoS of an application