

QoS AND MOBILE TECHNOLOGIES

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CHAPTER 18

OVERVIEW OF WiMAX MESH

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18.1 INTRODUCTION

The definition according to WiMAX technology forum, an organization dedicated to promoting WiMAX technology and specifications, According to WiMAX forum "WiMAX is a standards-based technology enabling the delivery of last mile wireless broadband access as an alternative to cable and DSL. WiMAX Technology will provide fixed, nomadic, portable, and, eventually, mobile wireless broadband connectivity without the need for direct line-of-sight to a base station. In a typical cell radius deployment of 3 to 10 kilometers, WiMAX Forum Certified systems can be expected to deliver capacity of up to 40 Mbps per channel, for fixed and portable access applications." (WiMAX Forum, 2007). Practically, a wireless backhaul WiMAX – facilitates flexible placement of a mesh gateway node anywhere in the network. The moveable WiMAX Base Station (BTS) also allows fast installation and easy relocation. Furthermore, for a typical metro area network (MAN) WiMAX performance is outstanding which is specially designed for MAN. It is noticeable that WiMAX also can operate either on licensed or unlicensed band with the third party operators.

The rest of the chapter is organized as follows. Section 2 presents mesh network architecture with WiMAX, section 3 describes Wi-Fi technology and Section 4 analysis of related works, in section 5 summarizes the chapter.