

UNIVERSITI TEKNOLOGI MARA

**COVERAGE AND QUALITY RADIO ANALYSIS FOR
CIRCUIT-SWITCH FALLBACK IN LONG TERM
EVOLUTION (LTE)**

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ABSTRACT

Long Term Evolution technology (LTE), which is the new upcoming technology, only support packet based service. The IP connects all elements end to end between core network and mobile terminal. Therefore, services such as voice calls and the Short Message Service (SMS) that been served by Circuit Switch (CS) domain will replaced with Voice over LTE. As in reality, for telecommunication operators, voice and SMS service contributing a majority of the revenue. In this paper, we comparing different technique of handling VoLTE and analyze one of the approaches (Circuit Switch Fallback). This paper also will outline the basic operation of main competing approach, as well as basic comparison in system and architecture. The performance of the CS Fallback was studied in terms of coverage and quality. The specific tools which is called Nemo Outdoor is used to measure the coverage, quality and throughput via drive test. Important parameter and data captured are being process using Nemo Analyze and MapInfo Professional.

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