Backhaul Media Solution for Improvement of Spectrum Efficiency in LTE Networks

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Abstract

Designing of backhaul media is one of the most challenging task in implementation LTE 4G networks. Traditionally microwave/DRS of STM-1 links were used to implement LTE network. However, due to low microwave efficiency targeted bandwidth requirements of LTE were hard to achieve. Also, operators in developing countries tend to go for cost-effective solution due to lower purchase power of the people. In this research, backhaul media is examined in detail. Even though optical fiber and microwaves are used in most countries, it is not a budget friendly option for developing countries. Some developing nations still have copper wires installed in masses which are used for internet services at home/Business area. A new solution has been proposed to use copper medium as a backhaul media for LTE 4G networks. Simulations have been performed to demonstrate the effectiveness of the idea.

References

1. G. K. Venkatesan, K. Kulkarni, "Wireless backhaul for LTE - requirements, challenges


**Index Terms**

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**Keywords**

Long Term Evolution, LTE, 4G, Backhaul, Wireless, Network Availability