

## ABSTRACT

Data needs on cellular networks are increasing at this time, one of which is triggered by 4G LTE Long Term Evolution technology, enabling LTE technology to have dynamic frequency aggregation, and generally the use of LTE technology uses a lot of frequency resources used. But on one hand 3G HSPA technology users are still quite a lot and the use of frequency for 3G HSPA becomes increasingly limited due to frequency resources optimized for 4G LTE technology.

HSPA Dual Band does offer advantage by doubling throughput speed up to 42 Mbps with two channel aggregation in different band but with HSPA Dual Band activation followed by addition of Uplink Load. Therefore to keep improving the performance of the HSPA network can be done by Load Balancing method that can direct and divide traffic so that it can reduce the problems for site conditions that do have load uplink that will increase after the activation of Dual Band HSPA.

By using a load balancing method that takes into account the imbalance link, the uplink load condition that becomes down or worse after the Dual Band HSPA activation can be reduced and avoided so that with Dual Band HSPA activation it does not make the exiting network conditions worse.

**Keyword: Dual Band HSPA, Uplink Load, Load Balancing, Link Imbalance.**