

**Distributed Denial of Service is a popular type of cyber attack used to conduct criminal activity. Main goal of the attack is to hinder or blocking router to some or all service provided a service provider. DDoS is using a lot of botnet at a same time to deploy attack, and that is the main difference between DDoS and DoS that only using one device to do the attack. Even nowadays DDoS is still one of the most popular attack used by criminals. This study is going to compare two DDoS defense algorithms that have similarities in type and how they work, those algorithms are StopIt and RTBH. Main similarities between the two are both algorithms work by stopping data traffic from attack source to the target by filtering placed on router, while the main difference is where the filter is positioned. StopIt placed their filter on routers that are nearest with the attack source. Meanwhile RTBH install its filter on routers that are within the same AS as the attack target. Both algorithm capabilities are tested to restore network service when DDoS attack is happening. The test is done by simulating both algorithm using NS-3 as simulator. Then analysis is done to compare which one is the better algorithm. The result is StopIt performs better compared to RTBH even though it works slower than RTBH but StopIt also didn't stop all data traffic to the target.**

**Key word : DDoS, StopIt, Remote Triggered Black Hole**