WN Project Idea - Group 8

Project Title :

Selection between OFDM and OFDMA Transmission.

Problem Statement:

The project involves selecting between OFDM and OFDMA to be used for a WiFi6 frame transmission. The dynamic switching between OFDM and OFDMA should improve overall transmission performance, either by decreasing latency or increasing throughput by analyzing several parameters like rate of transmission of packets, throughput, queue length at the destination etc.

Tools/technologies/platforms to be used to solve the problem:

- NS3

Expected deliverables:

- Conduct preliminary research on the parameters (like queue size, packet transmission rate) that can influence overall transmission performance (latency and throughput).
- Analyze the performance parameters and further identify any new such parameters that could influence transmission performance.
- Implementing efficient dynamic switching between OFDM and OFDMA such that the overall throughput is increased and overall latency is decreased.
- Benchmarking our strategy with existing strategies to analyze latency and throughput values.