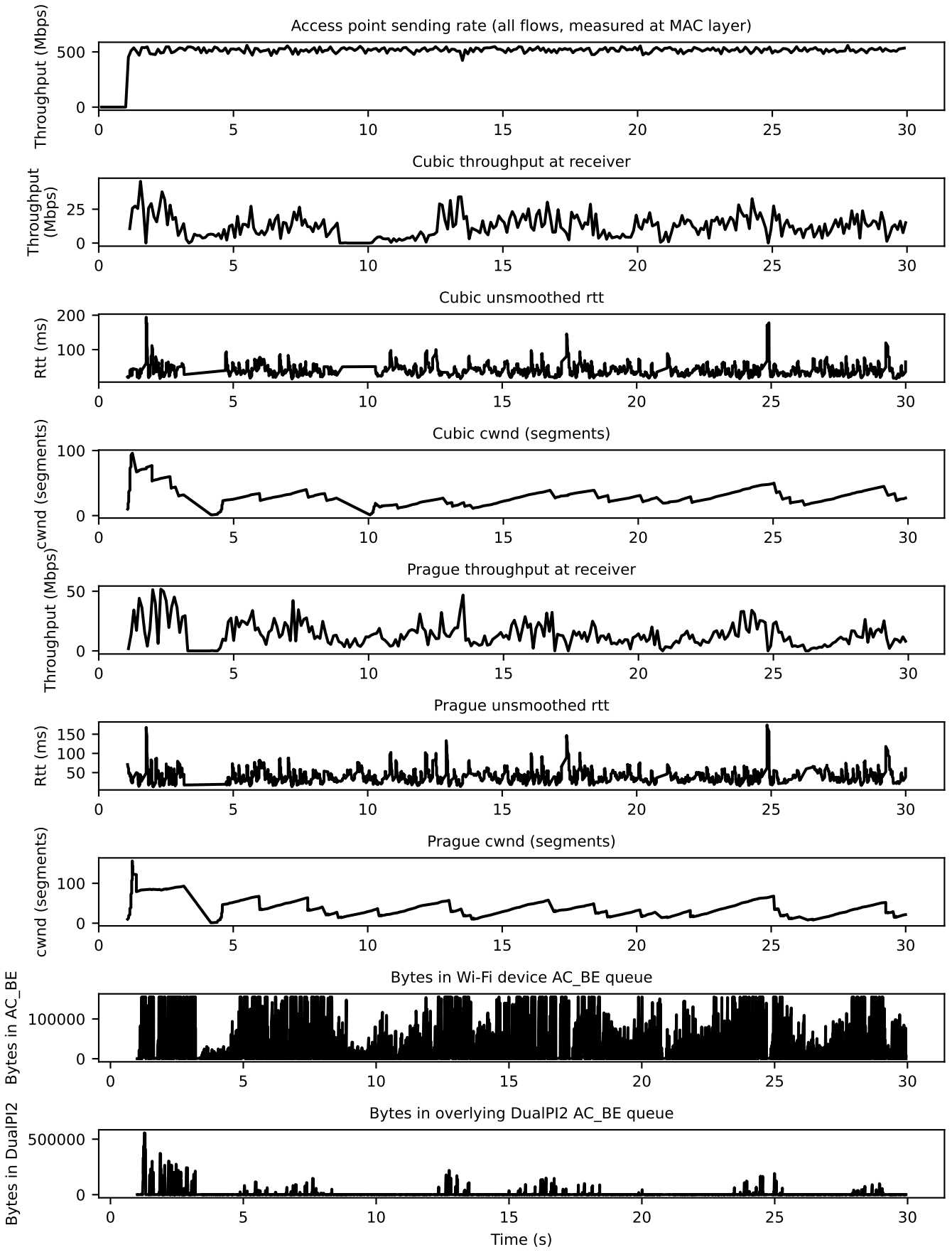Simulation ED2-MS2-AP1-LS2-TC4-TS2