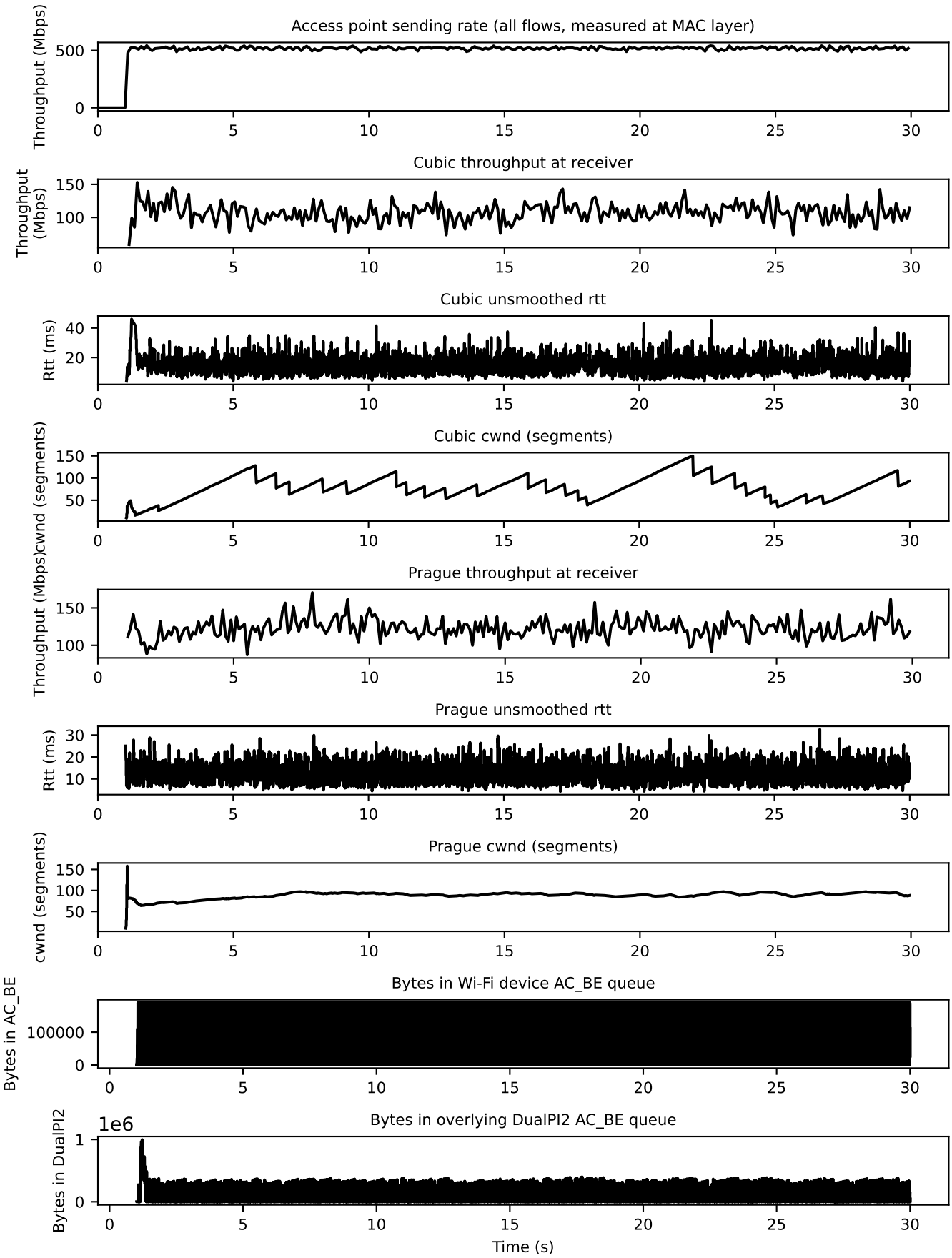Simulation ED3-MS1-AP1-LS2-TC4-TS1