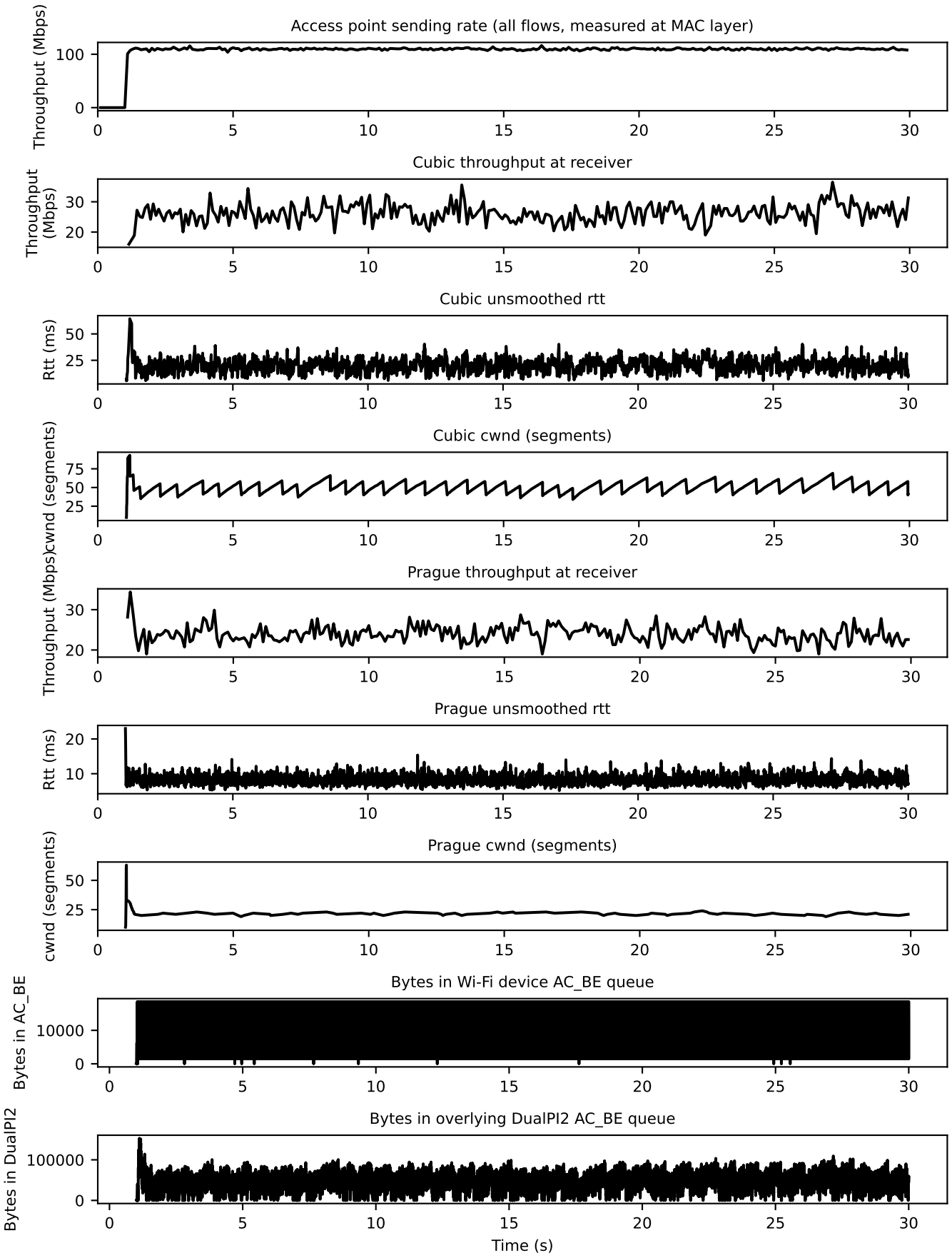Simulation ED4-MS1-AP1-LS1-TC3-TS1