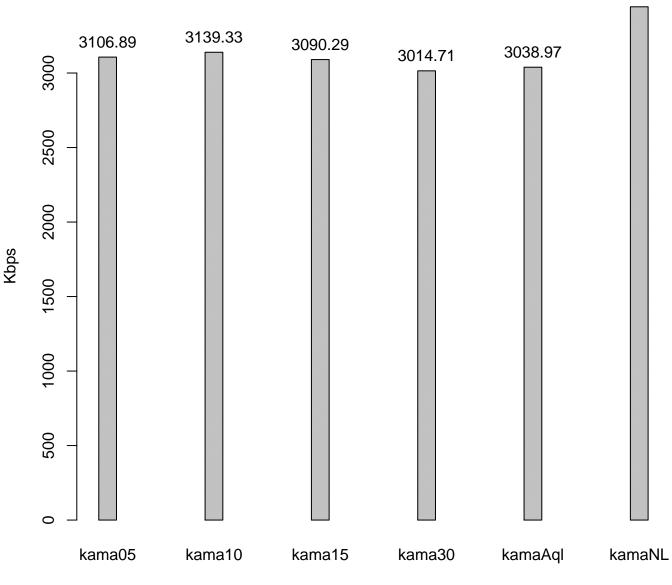
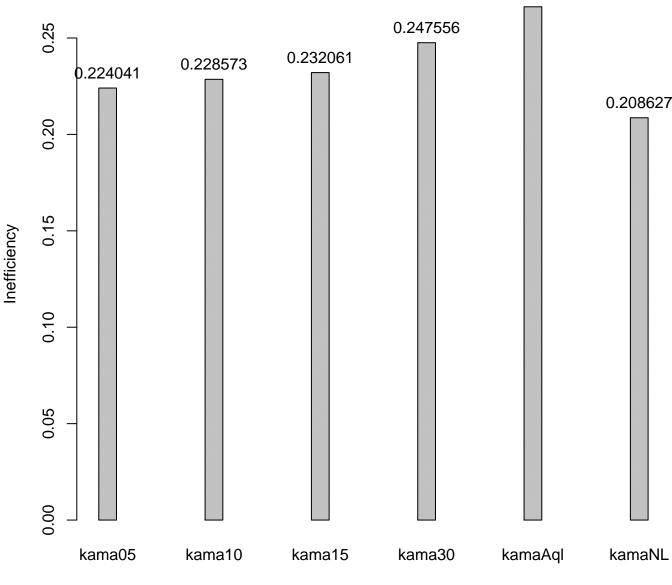
Network profile: p1 , Sample: t1 , Metric: Avg-Bitrate, Buffer:120 3444.47



Network profile: p1 , Sample: t1 , Metric: Inefficiency, Buffer:120 0.266181



Network profile: p1 , Sample: t1 , Metric: # quality change, Buffer:12 81 80 75 71 71 67 9 58 40 20

kama15

kama30

kamaAql

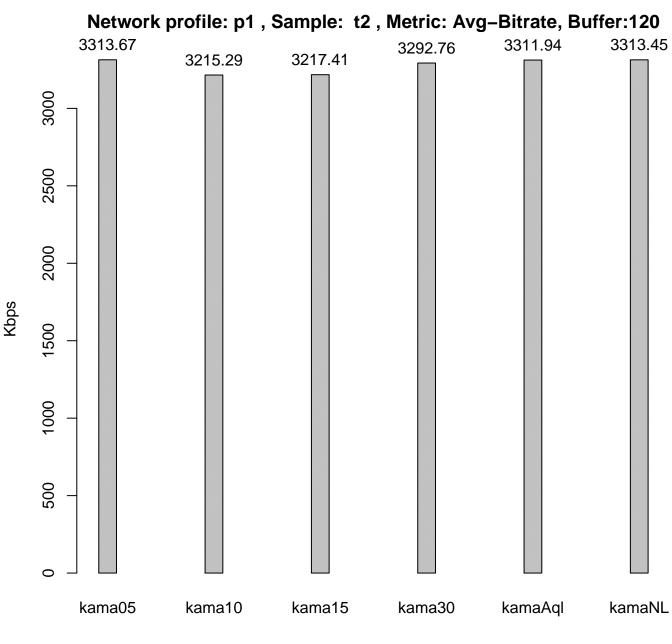
kamaNL

Quality changes

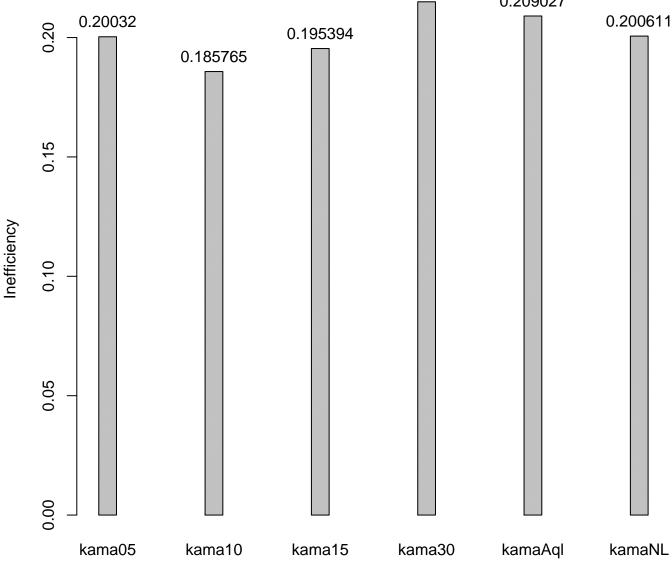
kama05

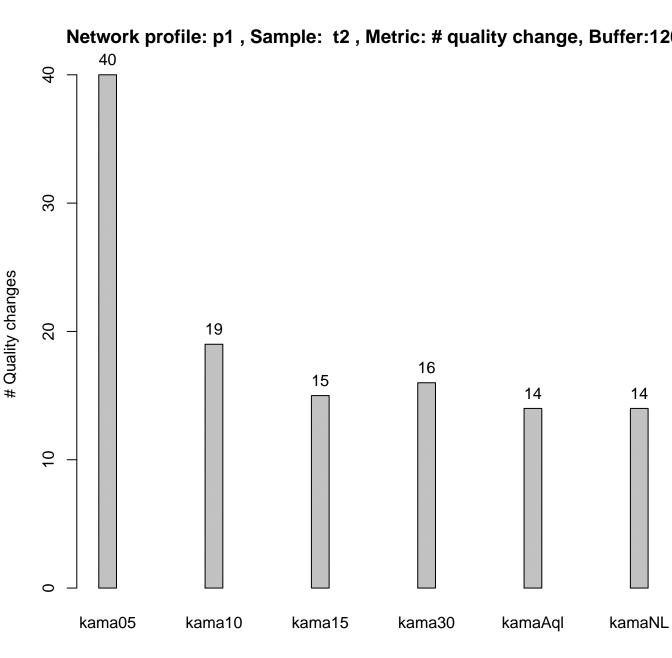
kama10

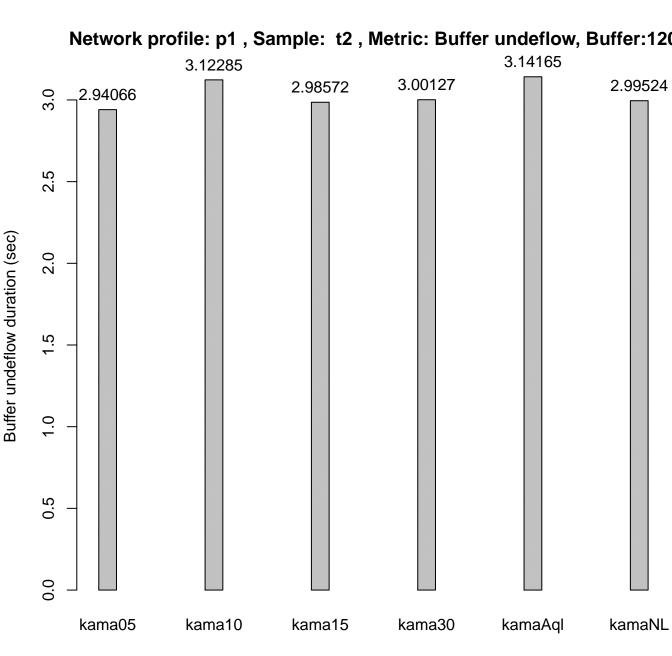
Network profile: p1 , Sample: t1 , Metric: Buffer undeflow, Buffer:120 75.886 70 9 Buffer undeflow duration (sec) 20 20 10 5.62274 5.62844 4.07654 4.38359 4.17801 kamaNL kama10 kama05 kama15 kama30 kamaAql



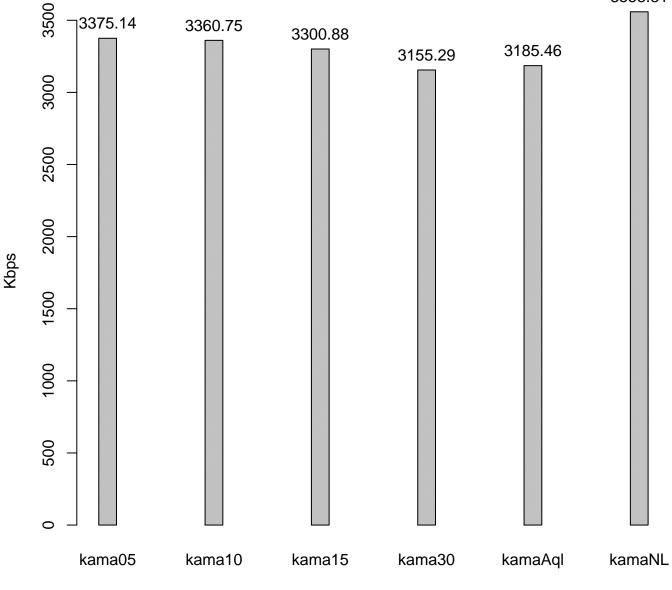
Network profile: p1 , Sample: t2 , Metric: Inefficiency, Buffer:120 0.214975 0.209027



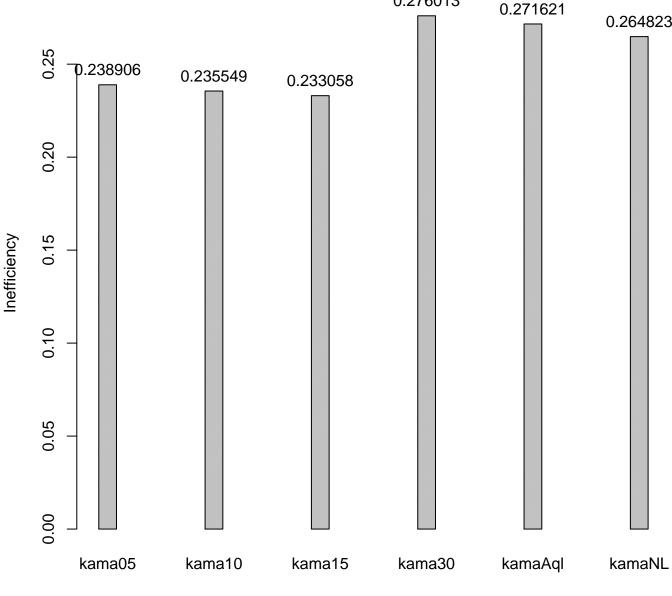


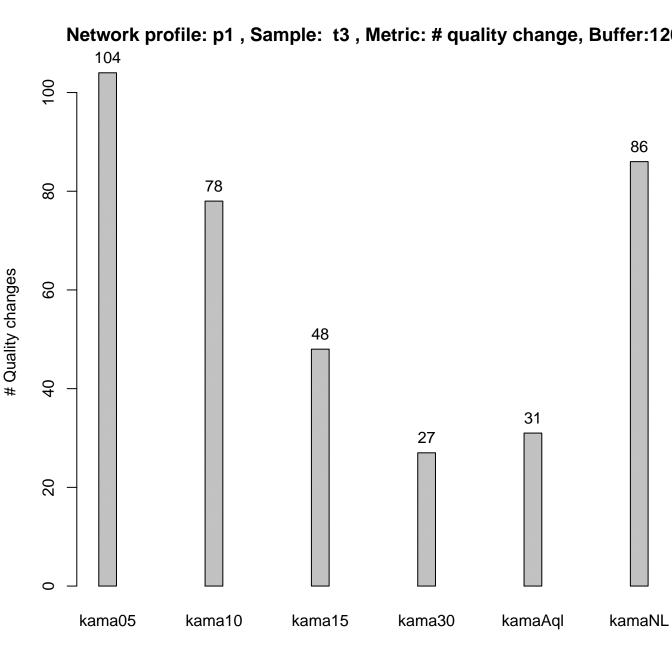


Network profile: p1 , Sample: t3 , Metric: Avg-Bitrate, Buffer:120 3558.81



Network profile: p1 , Sample: t3 , Metric: Inefficiency, Buffer:120

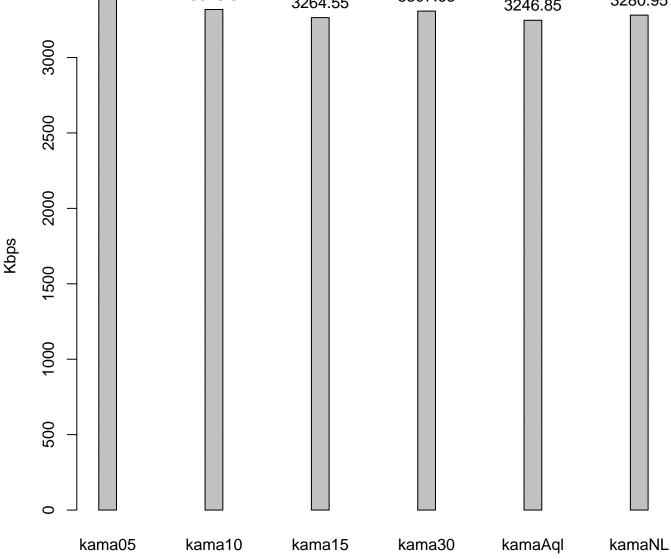




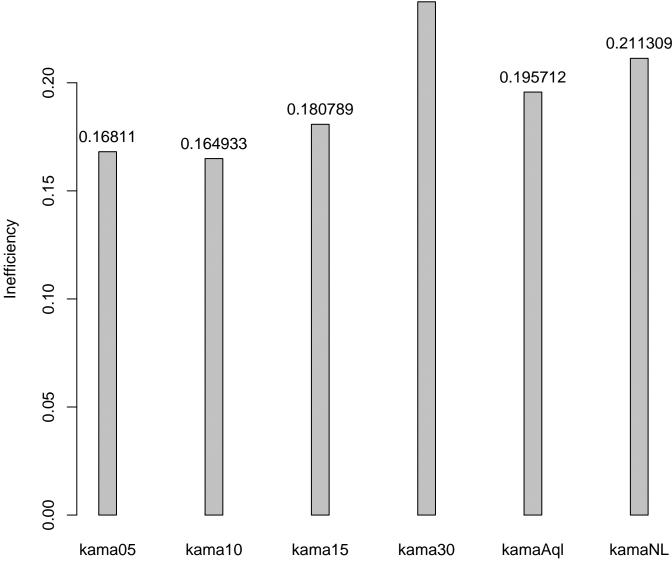
Network profile: p1 , Sample: t3 , Metric: Buffer undeflow, Buffer:120 17.6543 14.245 14.0731 14.0731 7.17409 2 0.388187 kamaNL kama05 kama10 kama15 kama30 kamaAql

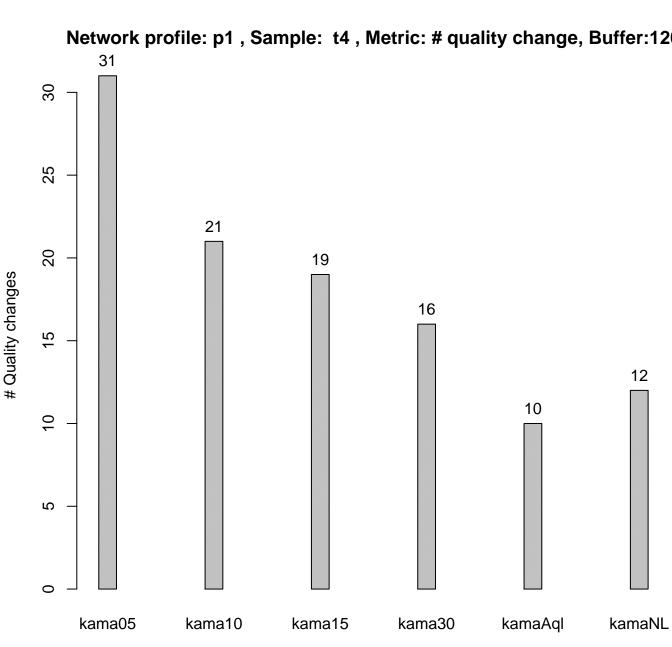
Buffer undeflow duration (sec)

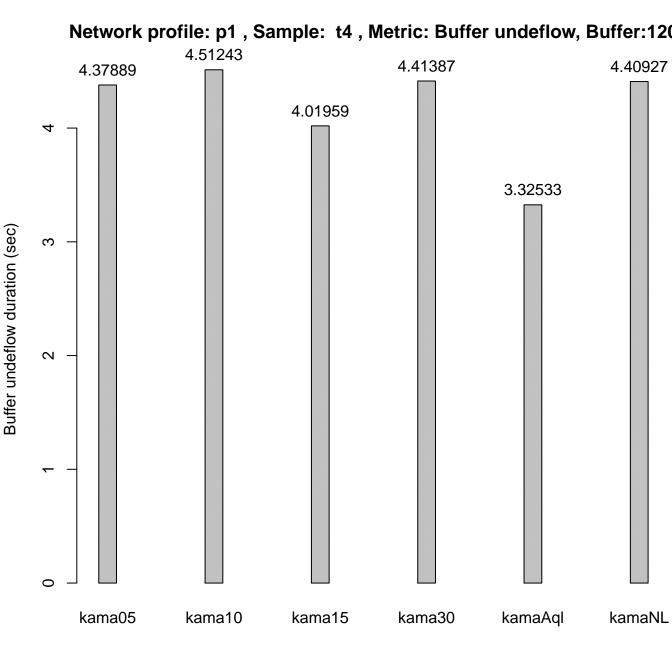


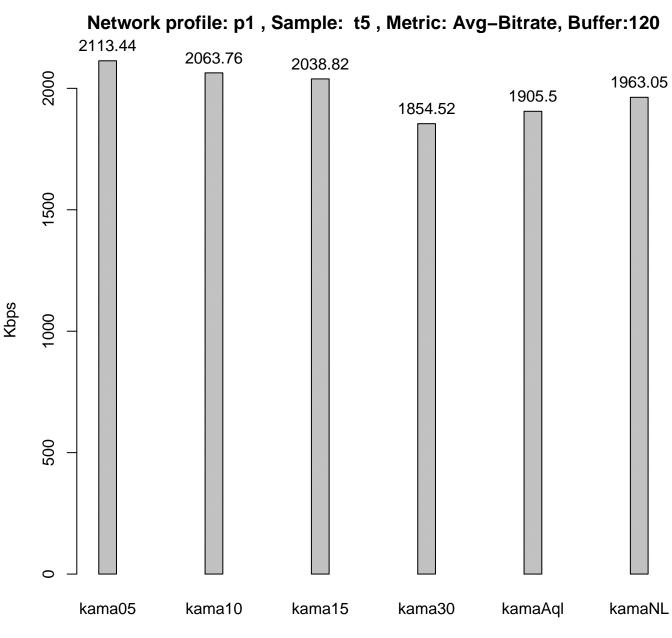


Network profile: p1 , Sample: t4 , Metric: Inefficiency, Buffer:120 0.237473

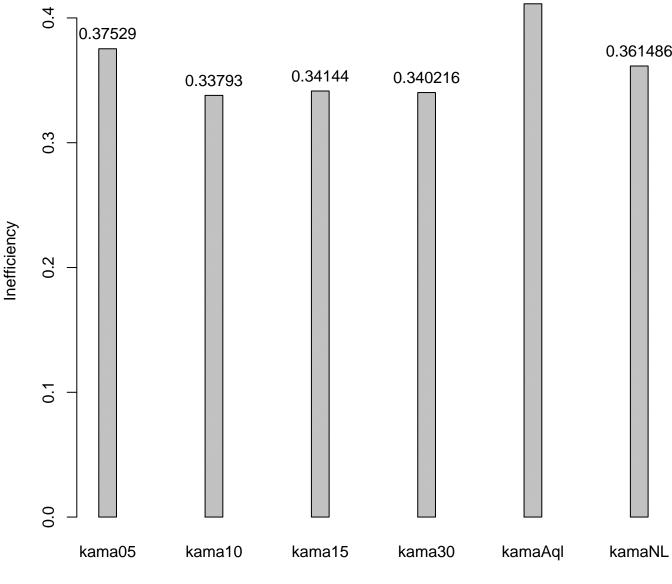


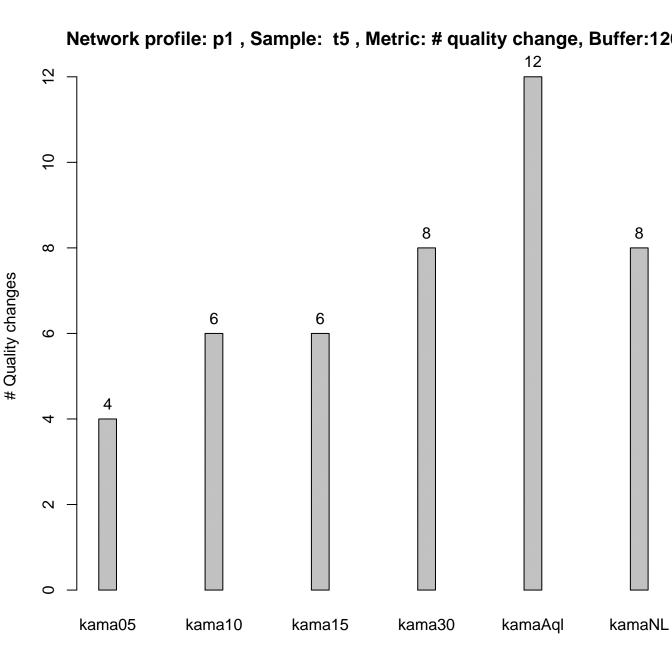


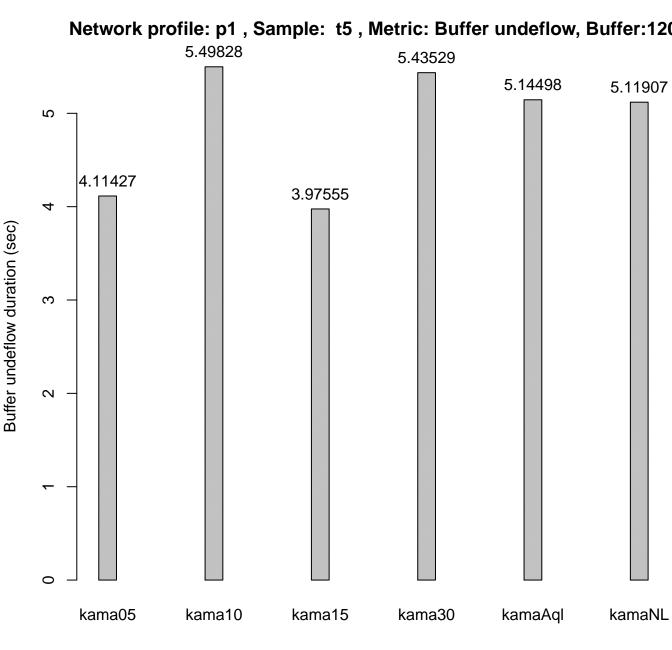




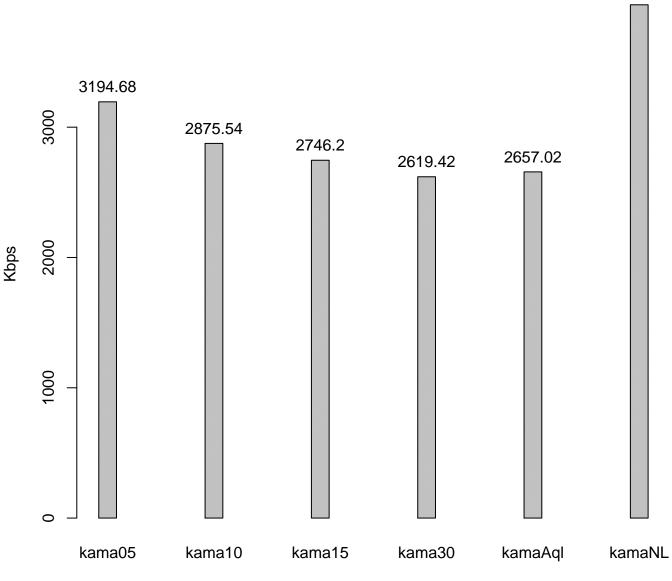
Network profile: p1 , Sample: t5 , Metric: Inefficiency, Buffer:120 0.411336



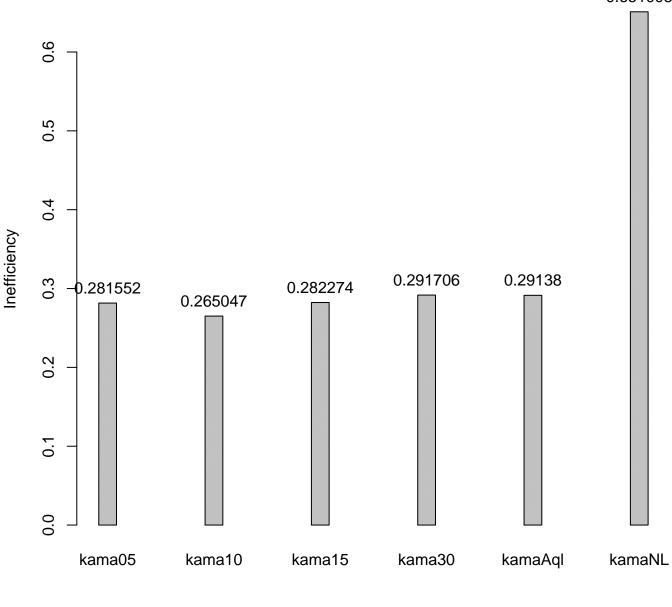




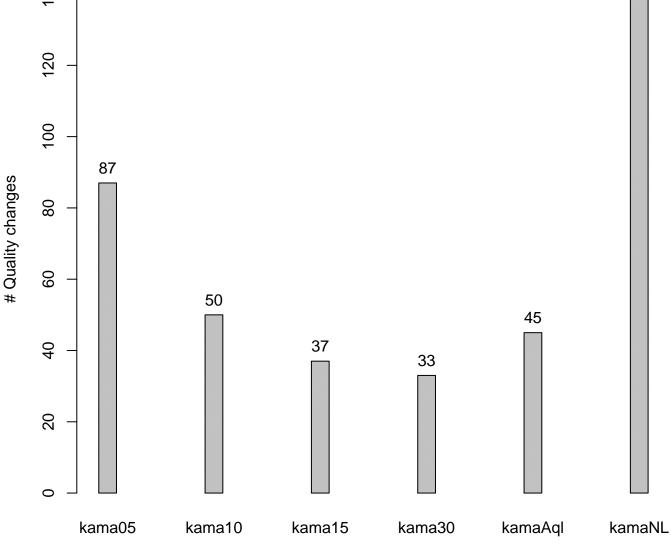
Network profile: p1 , Sample: t6 , Metric: Avg-Bitrate, Buffer:120 3939.37

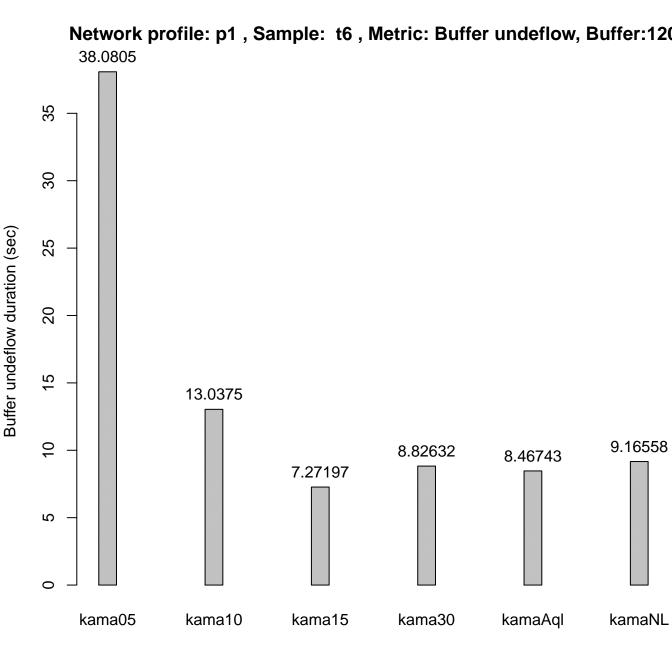


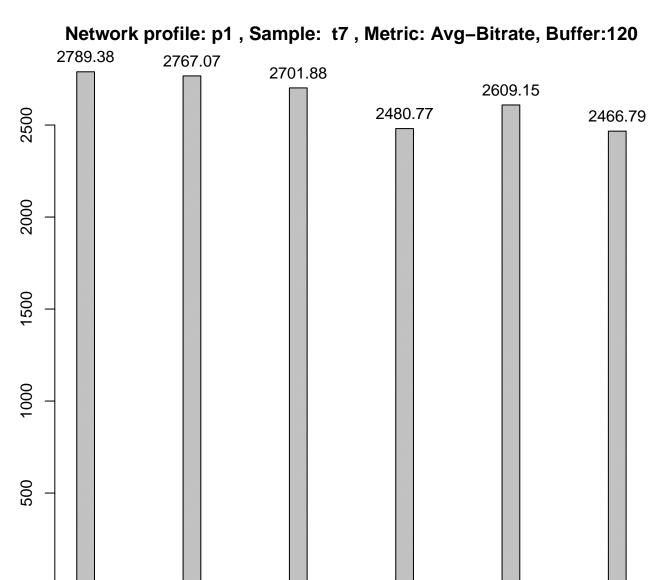
Network profile: p1 , Sample: t6 , Metric: Inefficiency, Buffer:120 0.651008



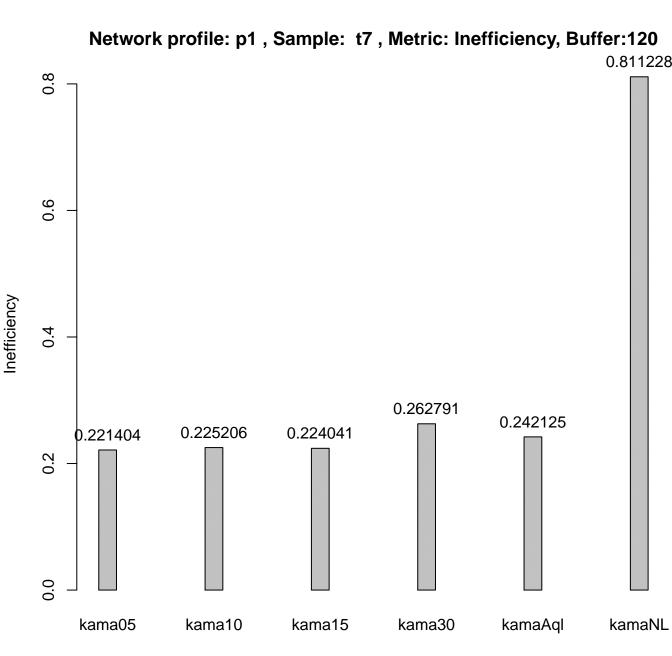
Network profile: p1 , Sample: t6 , Metric: # quality change, Buffer:12







kama05 kama10 kama15 kama30 kamaAql kamaNL



Network profile: p1 , Sample: t7 , Metric: # quality change, Buffer:12

86

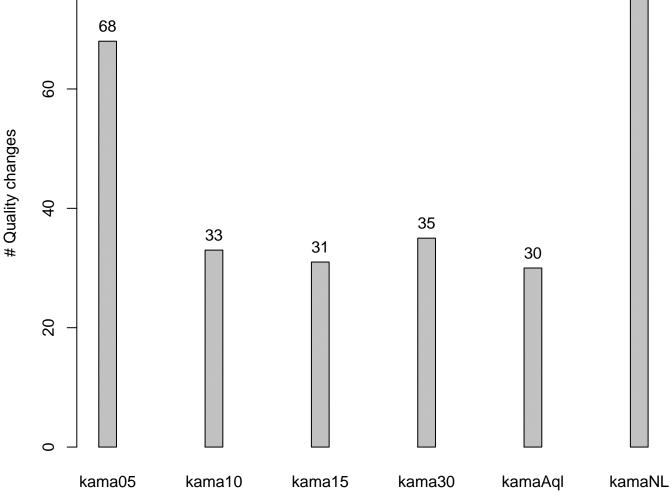
87

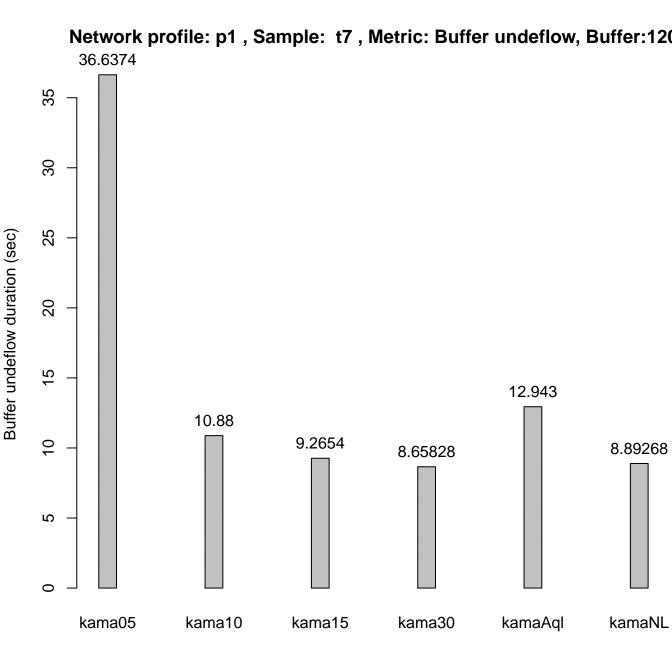
88

88

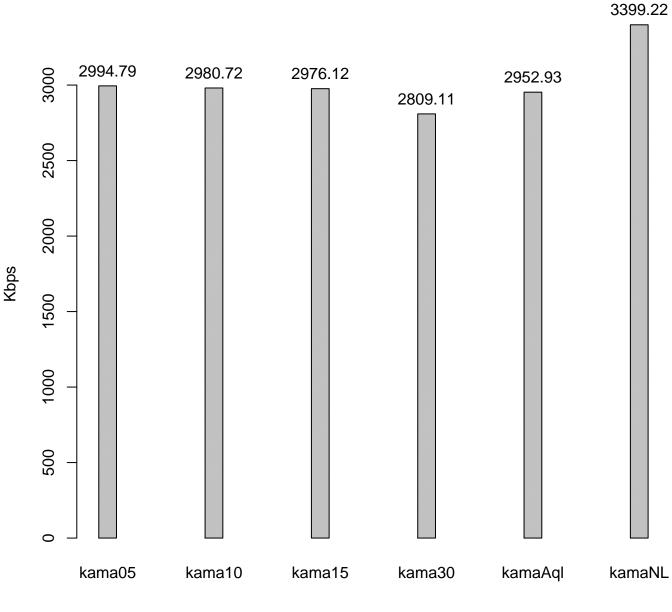
88

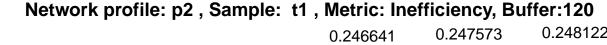
88

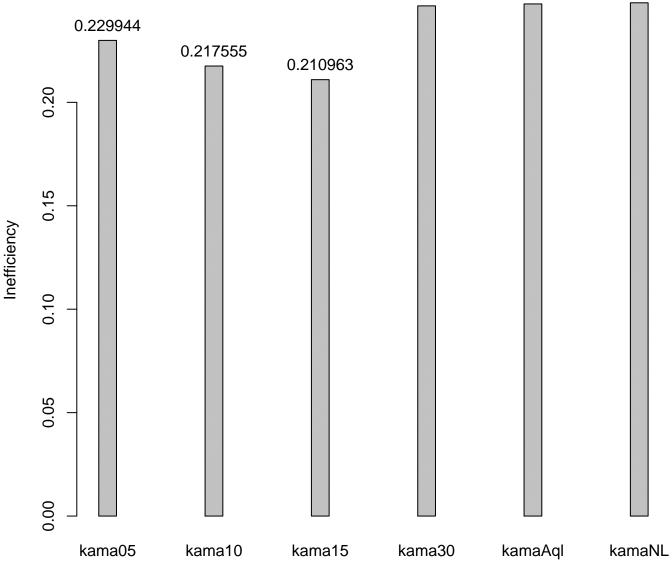


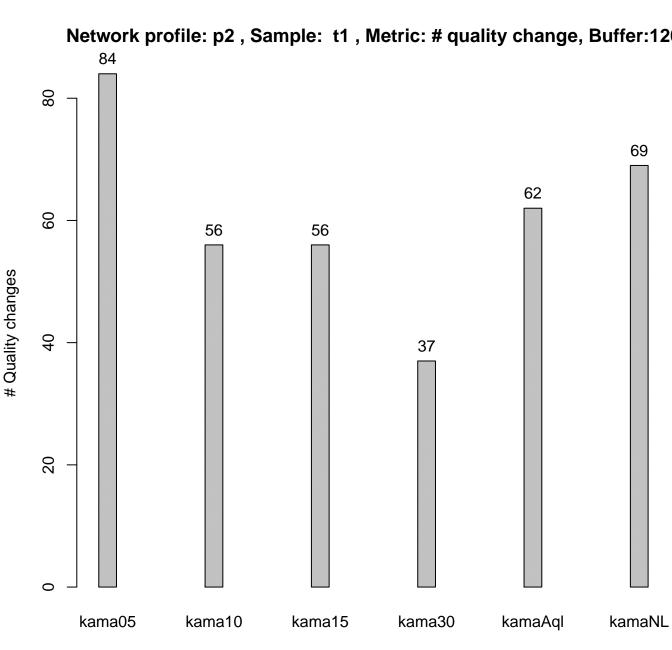


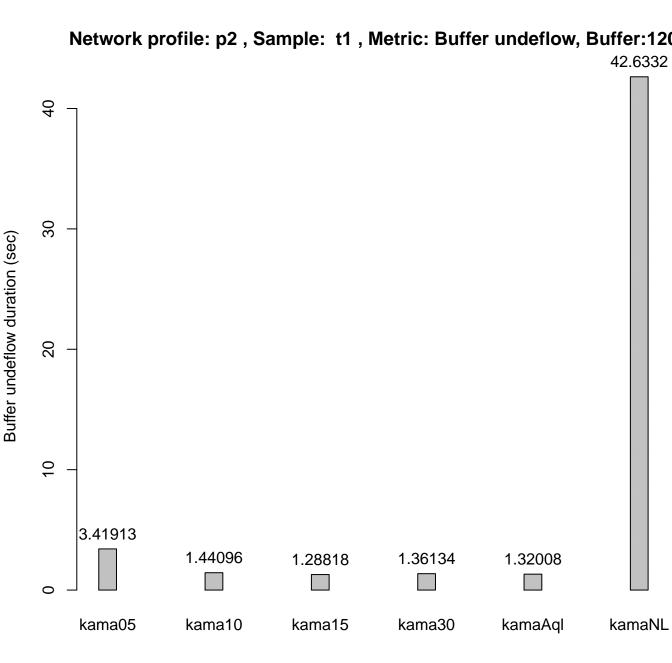
Network profile: p2 , Sample: t1 , Metric: Avg-Bitrate, Buffer:120

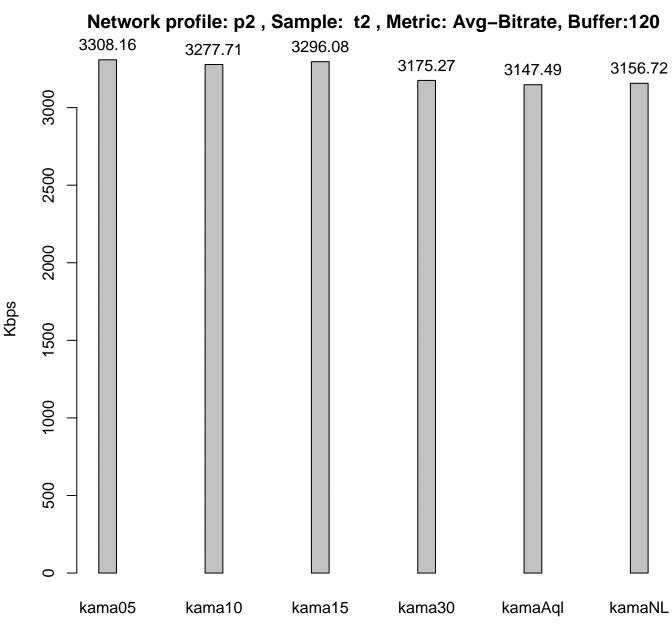




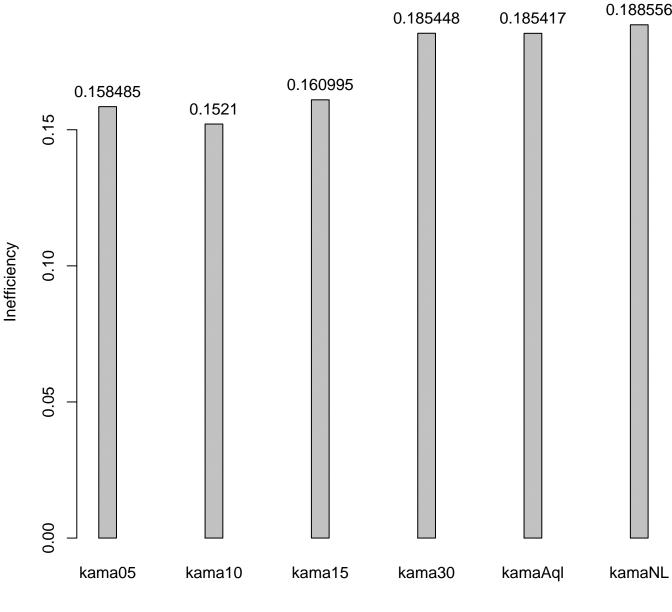


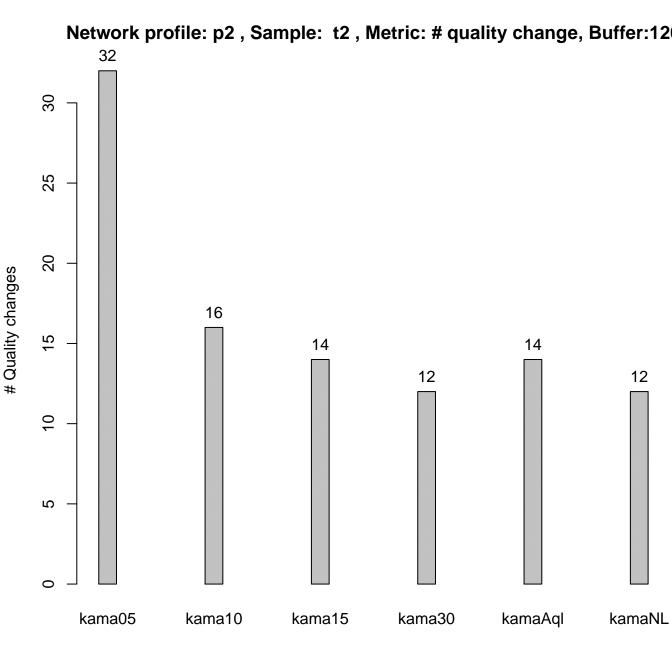






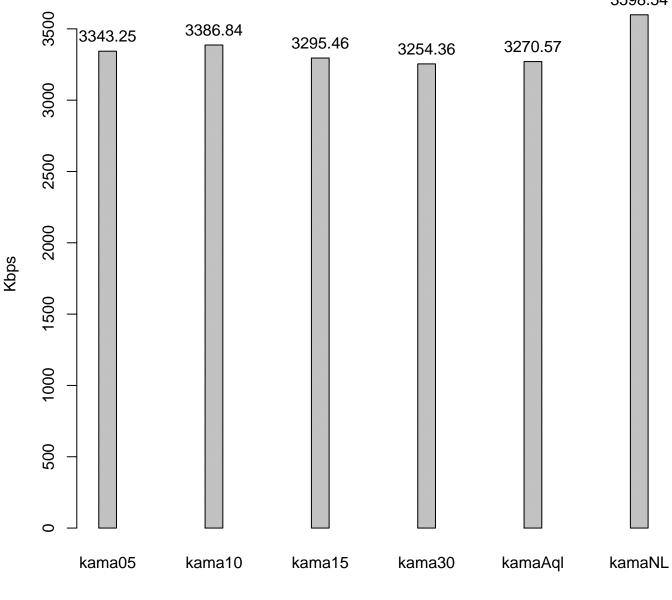
Network profile: p2 , Sample: t2 , Metric: Inefficiency, Buffer:120



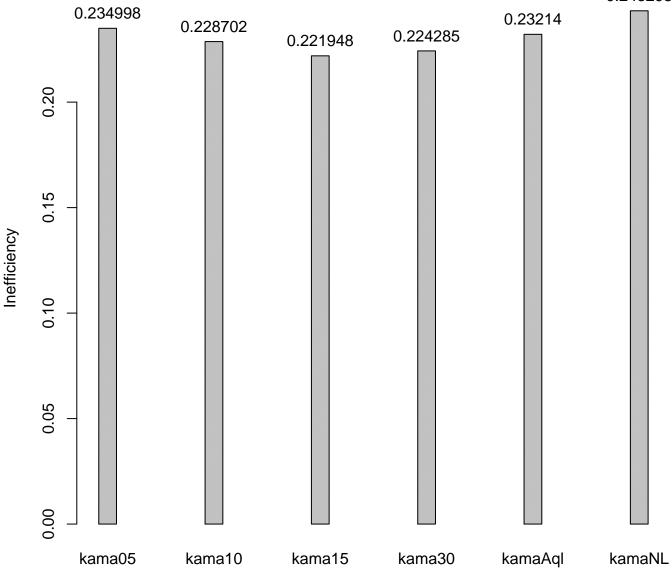


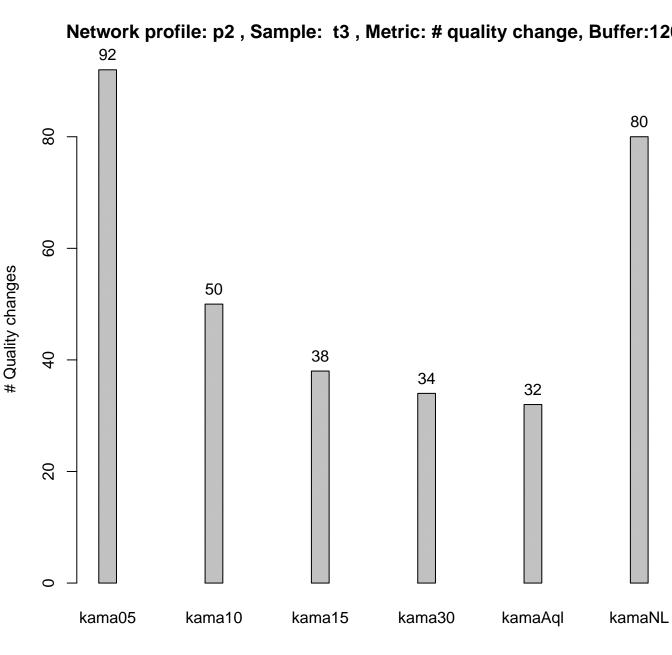
Network profile: p2, Sample: t2, Metric: Buffer undeflow, Buffer:120 1.08349 0.978789 0.966571 0.941366 0.920629 0.864218 0.8 Buffer undeflow duration (sec) kama05 kama10 kama15 kama30 kamaAql kamaNL

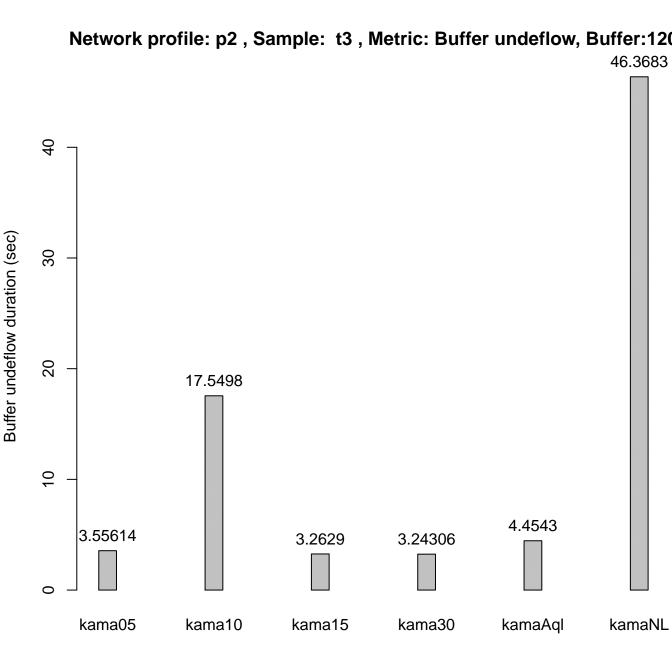
Network profile: p2, Sample: t3, Metric: Avg-Bitrate, Buffer:120 3598.54

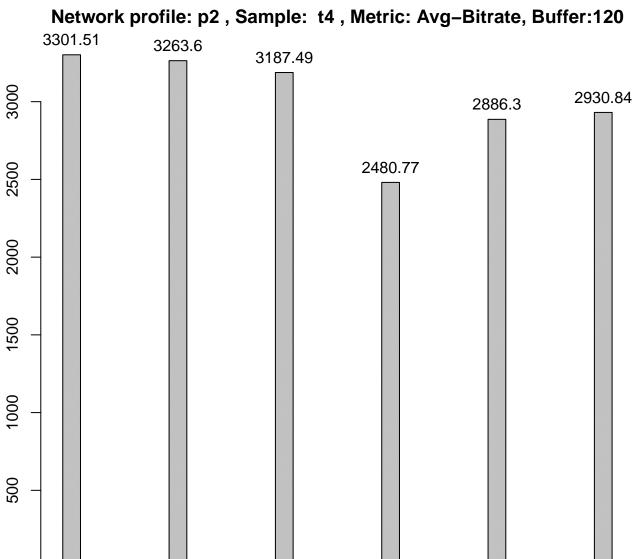


Network profile: p2 , Sample: t3 , Metric: Inefficiency, Buffer:120 0.243295



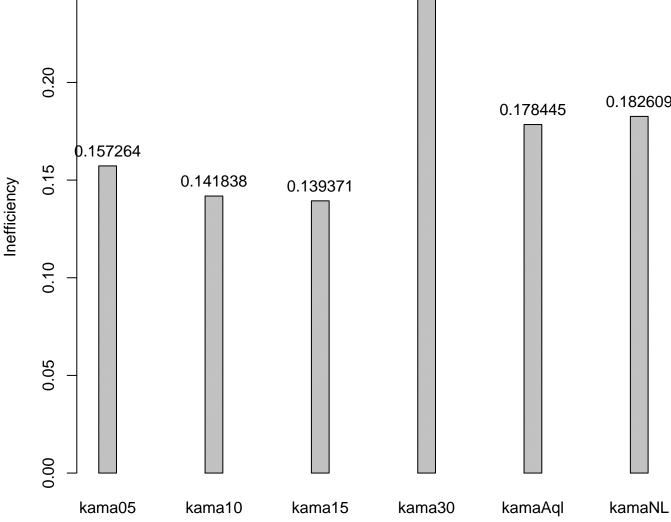


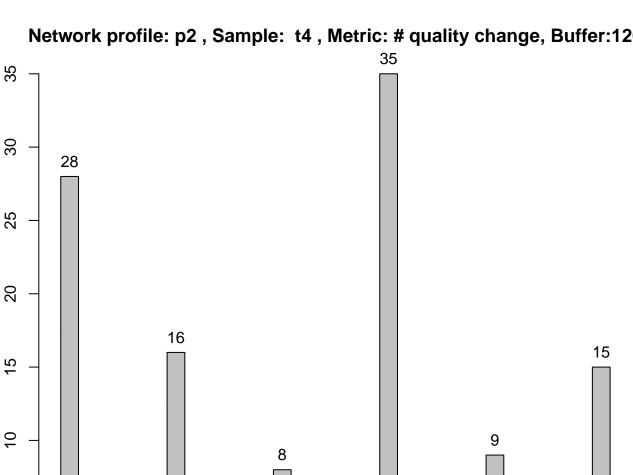




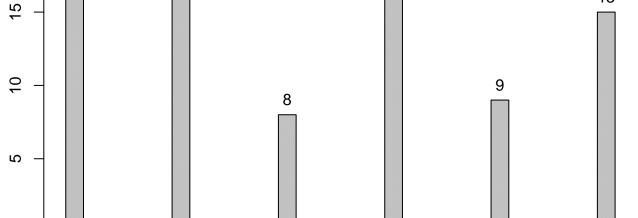
kama05 kama10 kama15 kama30 kamaAql kamaNL

Network profile: p2 , Sample: t4 , Metric: Inefficiency, Buffer:120 0.262791





Quality changes



kama30

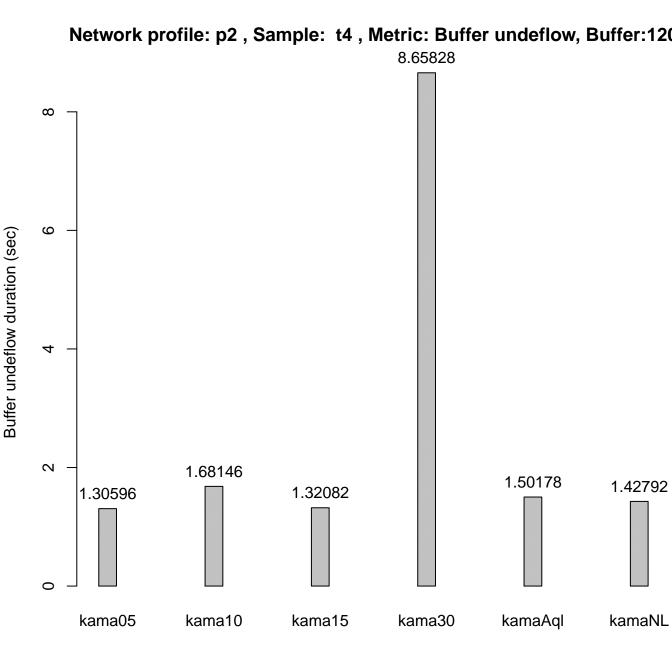
kamaAql

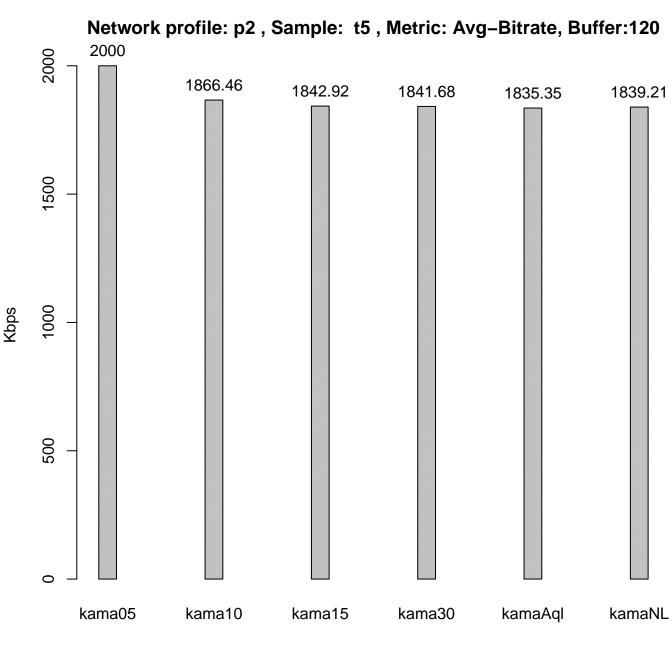
kamaNL

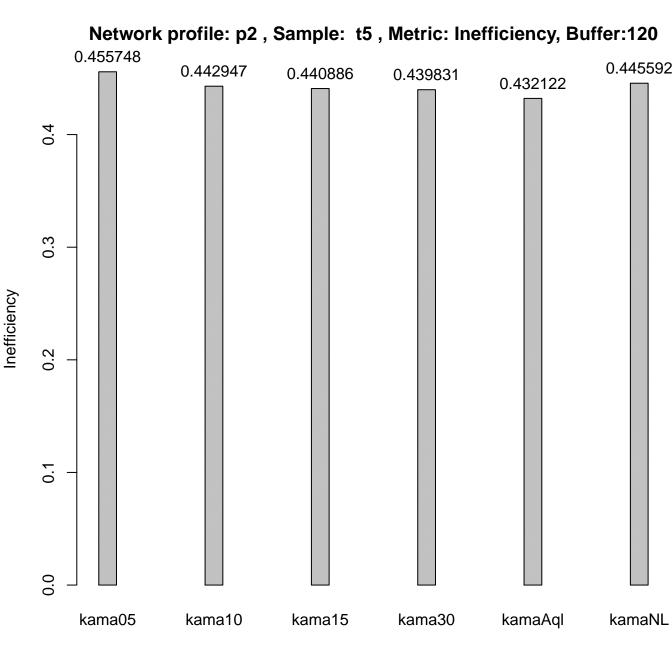
kama15

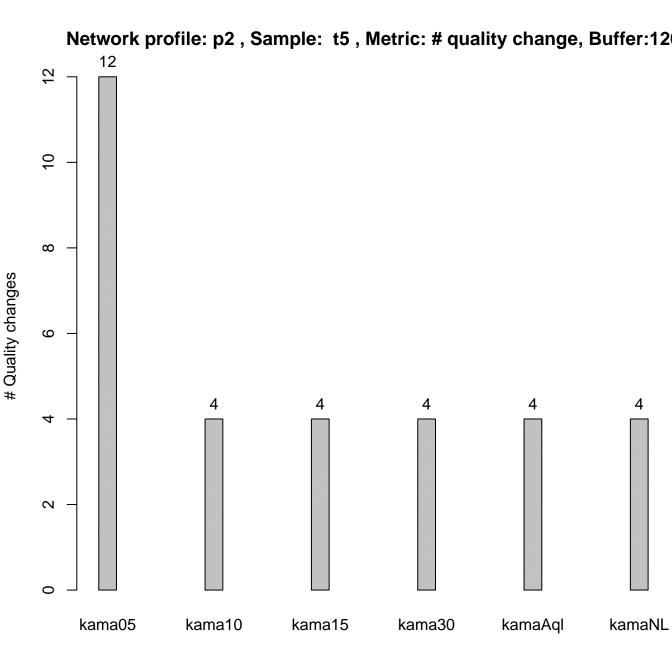
kama10

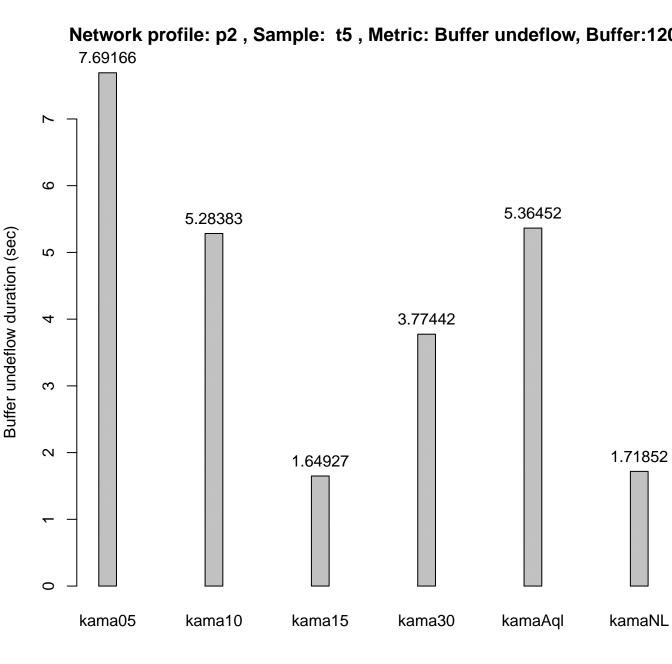
kama05



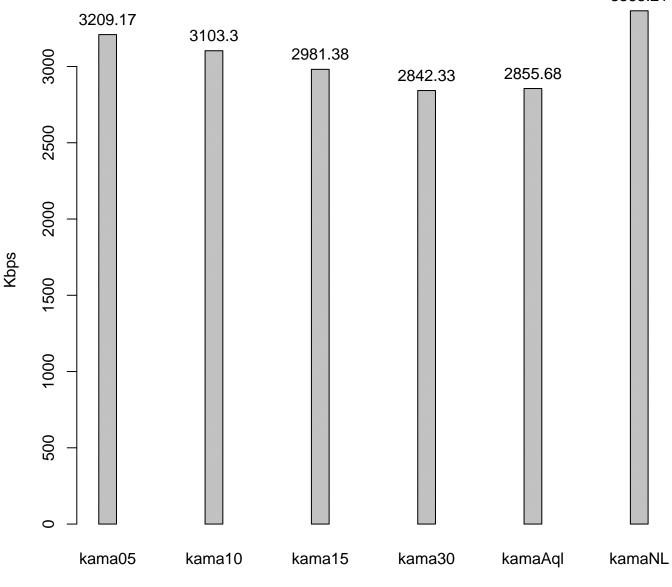


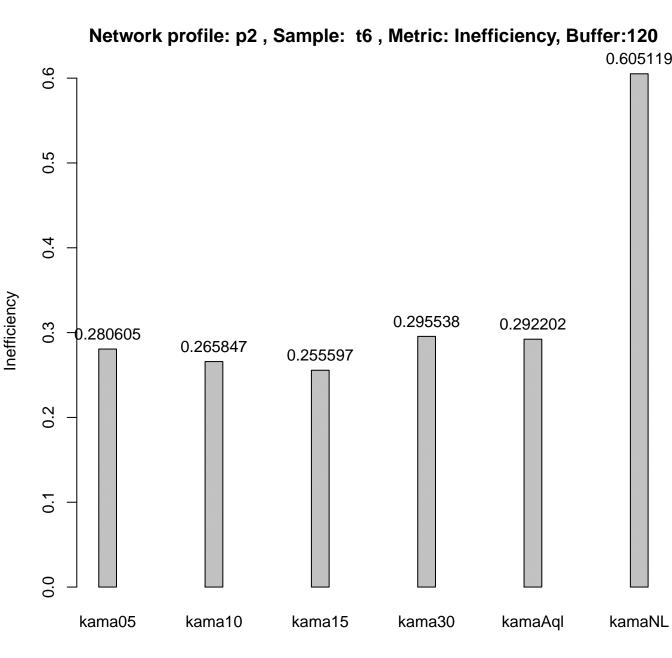




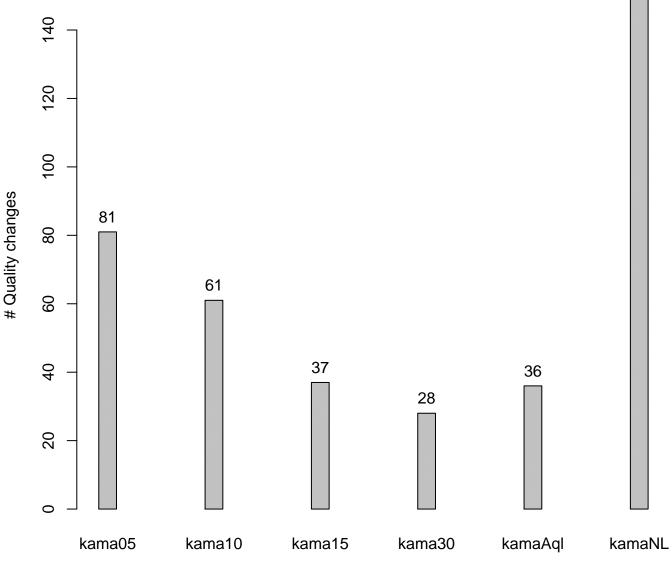


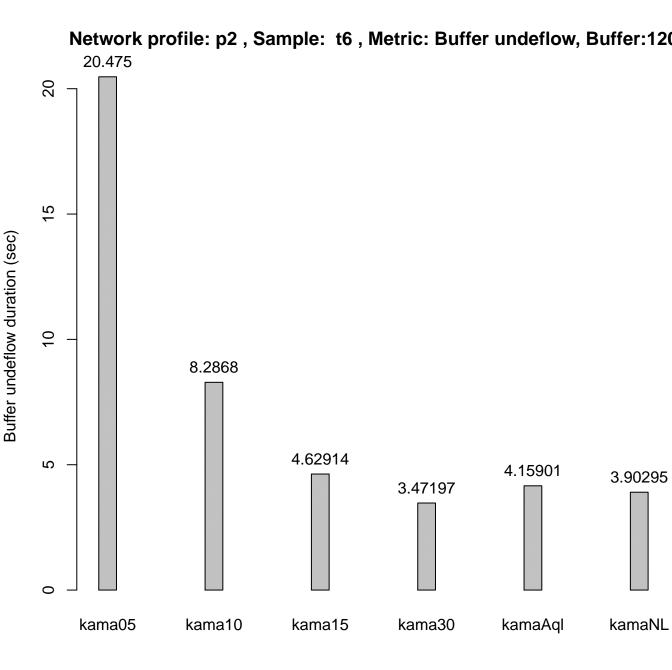
Network profile: p2 , Sample: t6 , Metric: Avg-Bitrate, Buffer:120 3365.21

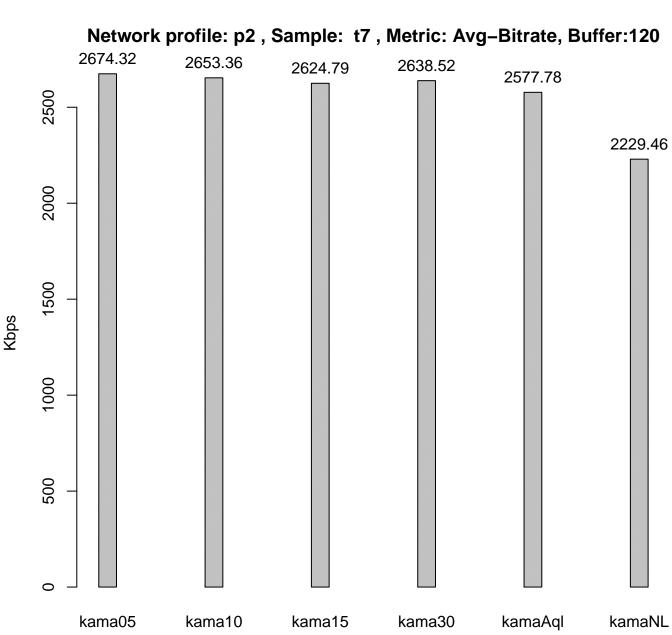




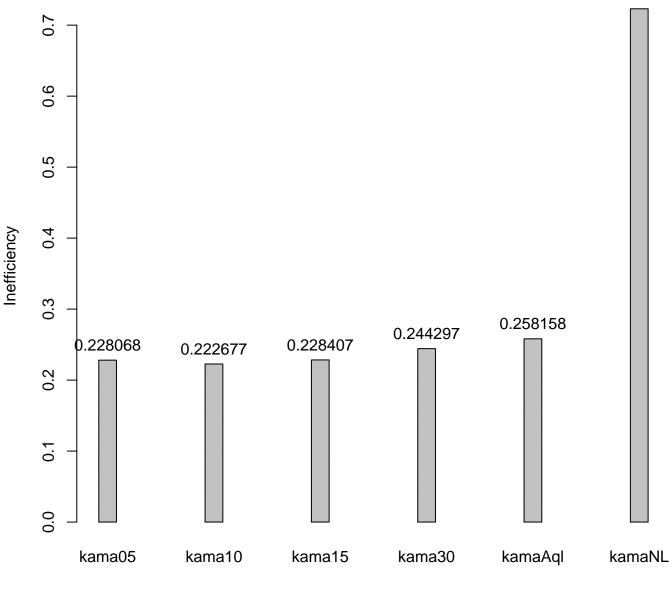
Network profile: p2 , Sample: t6 , Metric: # quality change, Buffer:12



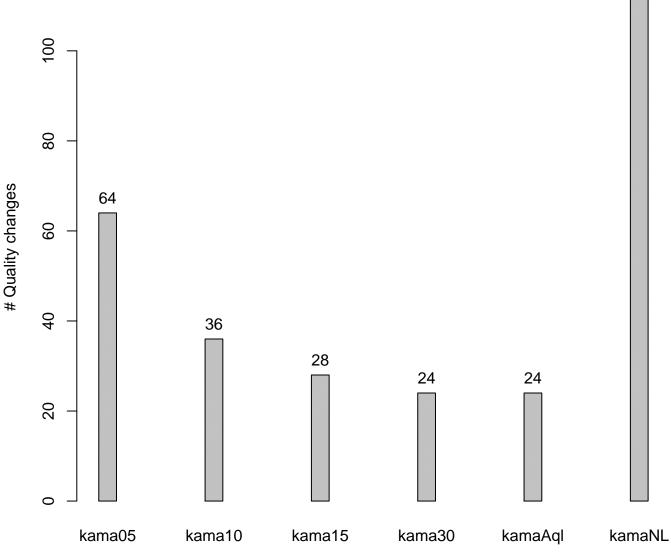


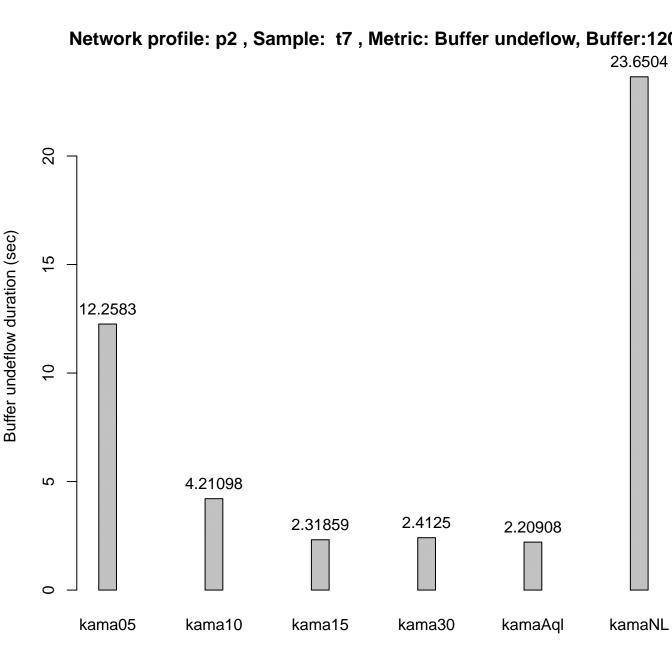


Network profile: p2 , Sample: t7 , Metric: Inefficiency, Buffer:120 0.723052

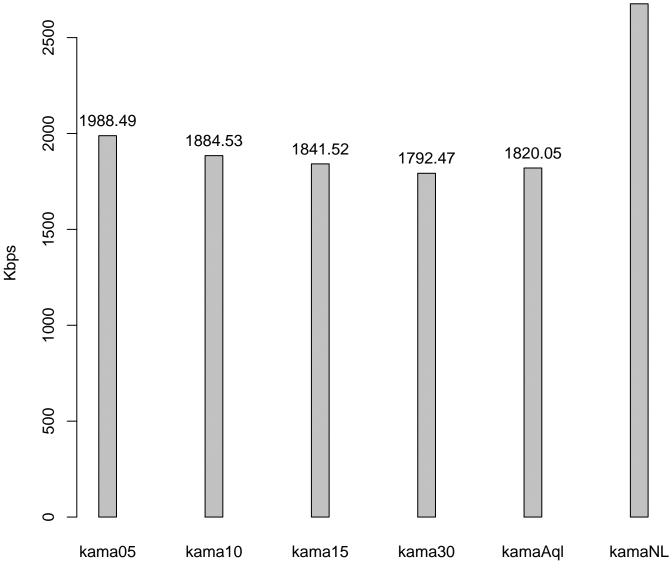


Network profile: p2 , Sample: t7 , Metric: # quality change, Buffer:12

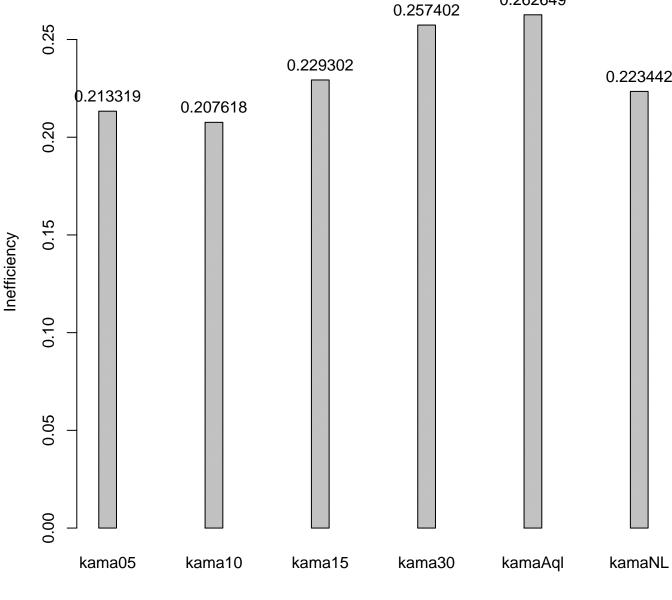




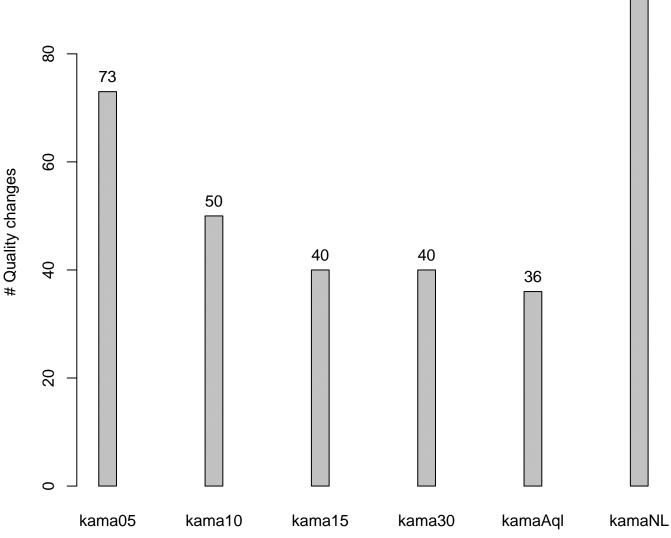
Network profile: p3 , Sample: t1 , Metric: Avg-Bitrate, Buffer:120 2676.21



Network profile: p3 , Sample: t1 , Metric: Inefficiency, Buffer:120

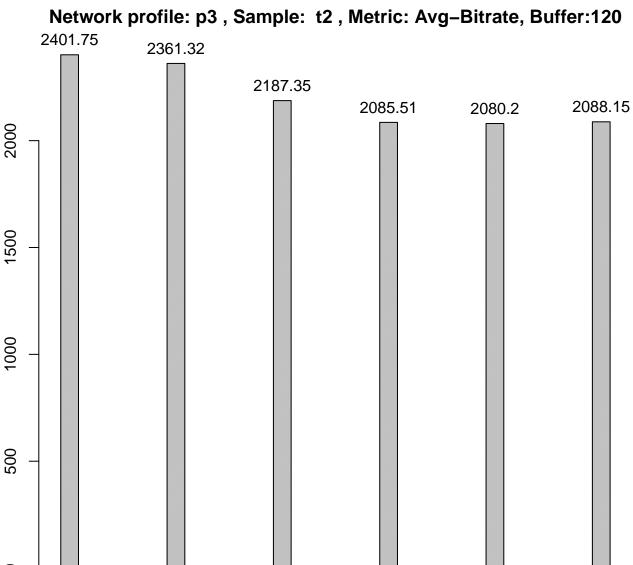


Network profile: p3 , Sample: t1 , Metric: # quality change, Buffer:12



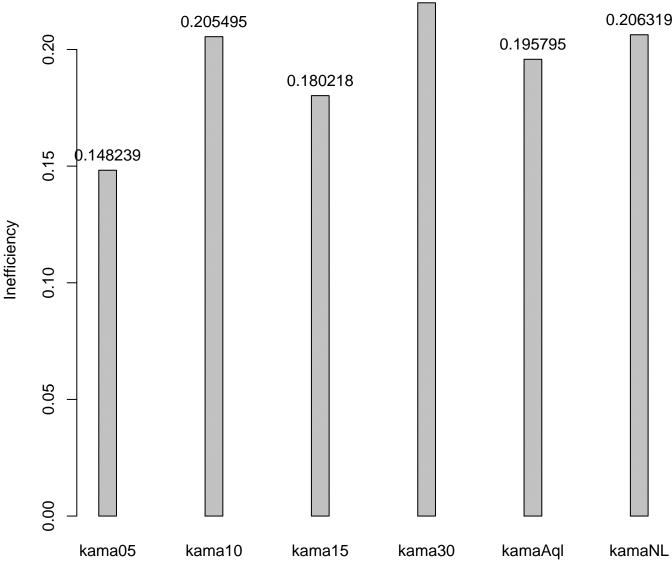
Network profile: p3 , Sample: t1 , Metric: Buffer undeflow, Buffer:120 68.3115 9 50 20 17.4554 10 6.6199 6.27014 5.51167 3.03428 kama05 kama10 kamaAql kamaNL kama15 kama30

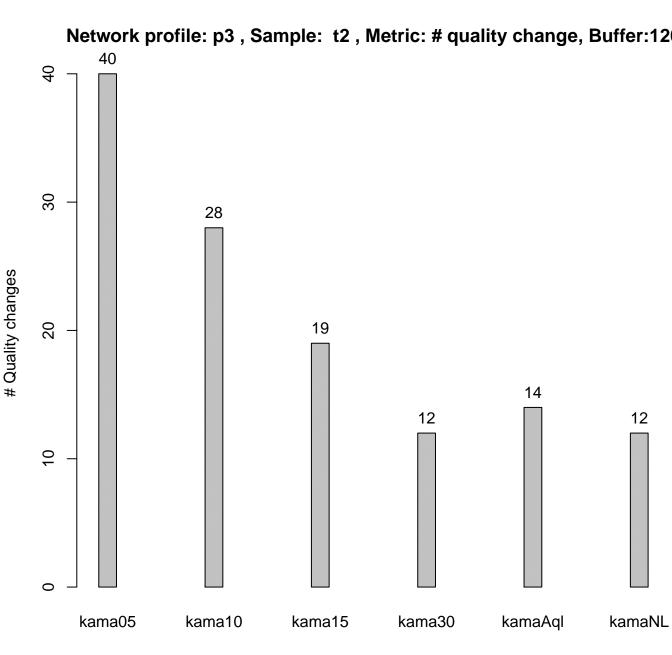
Buffer undeflow duration (sec)

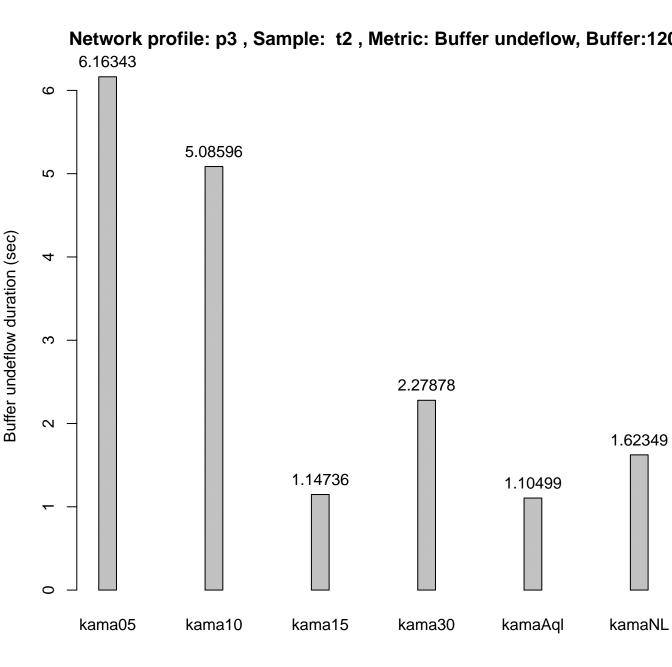


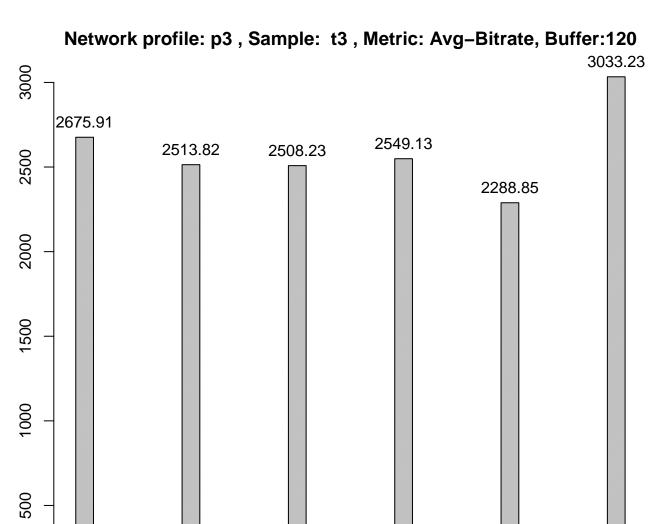
kama05 kama10 kama15 kama30 kamaAql kamaNL

Network profile: p3 , Sample: t2 , Metric: Inefficiency, Buffer:120 0.220017



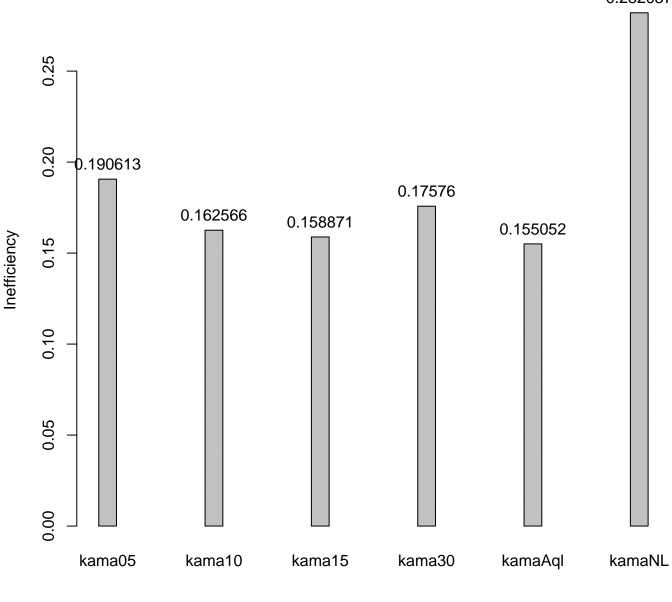


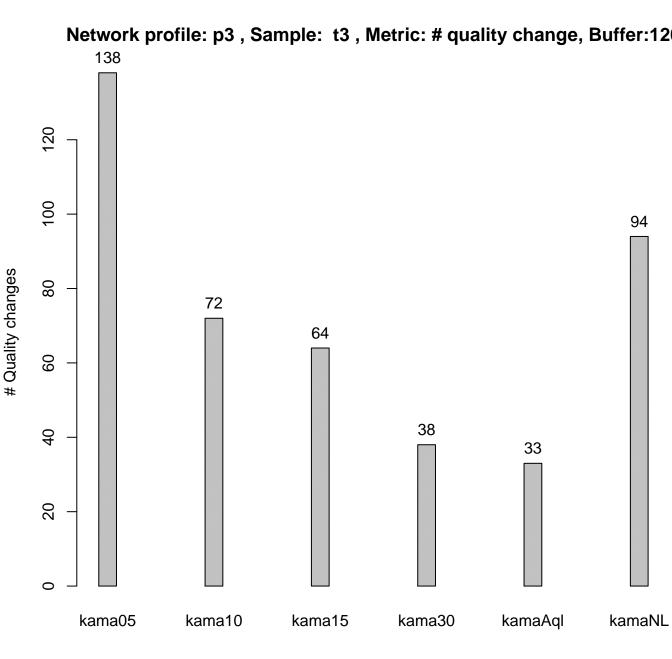




kama05 kama10 kama15 kama30 kamaAql kamaNL

Network profile: p3 , Sample: t3 , Metric: Inefficiency, Buffer:120 0.282037

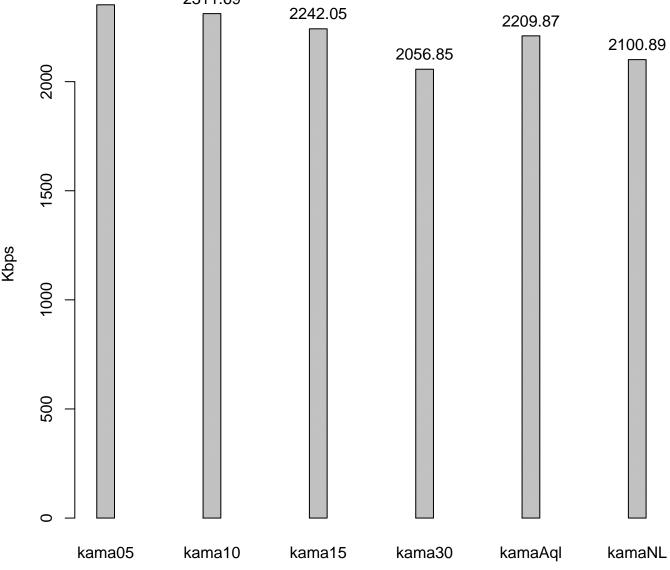




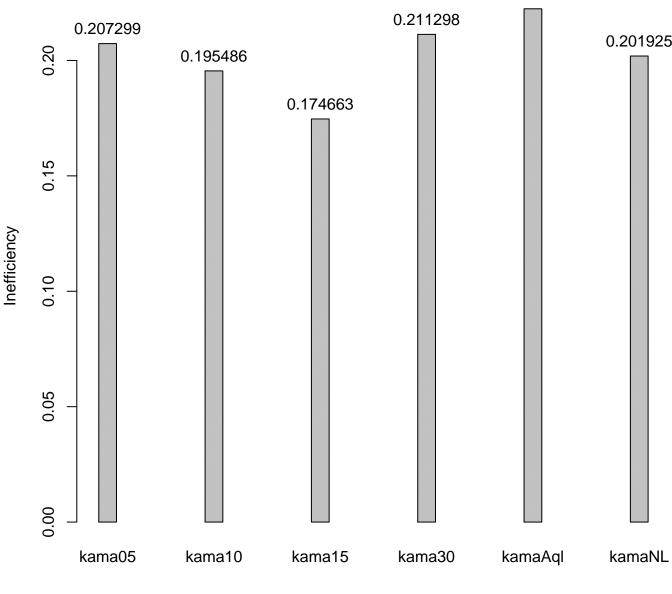
Network profile: p3 , Sample: t3 , Metric: Buffer undeflow, Buffer:120 49.4301 19.1506 3.47481 2.5486 1.33803 0.837394 kama05 kama10 kamaAql kamaNL kama15 kama30

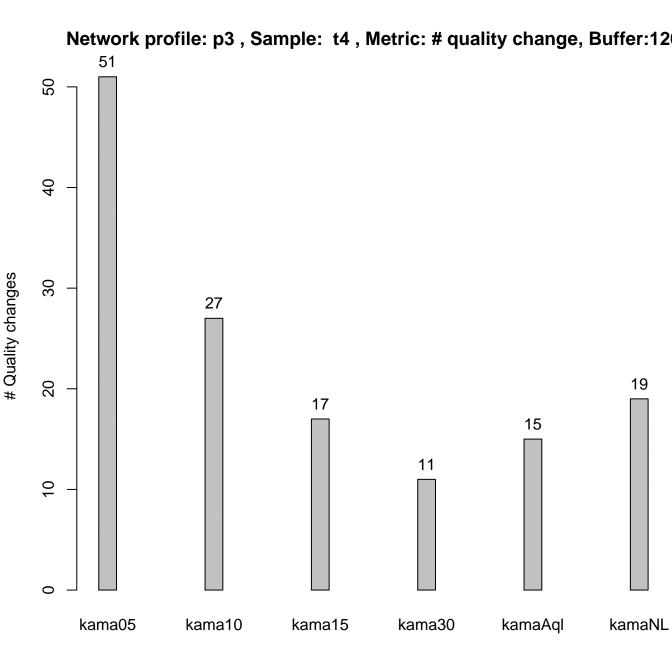
Buffer undeflow duration (sec)

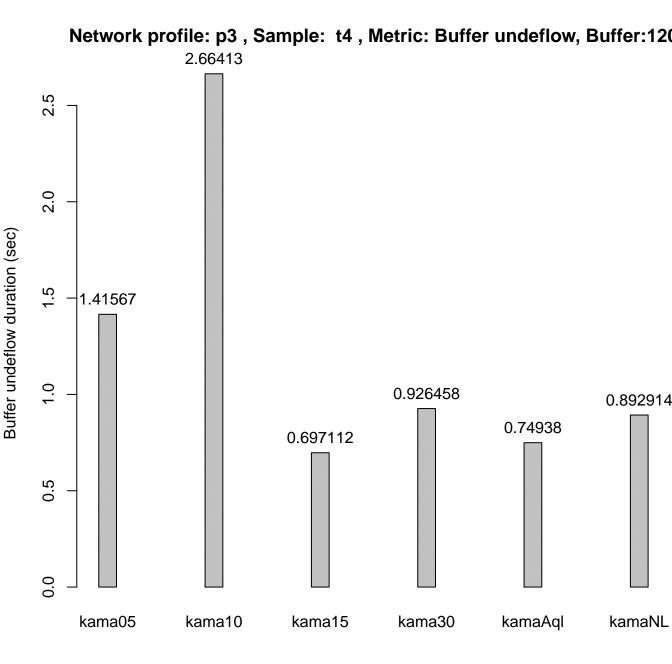
Network profile: p3 , Sample: t4 , Metric: Avg-Bitrate, Buffer:120

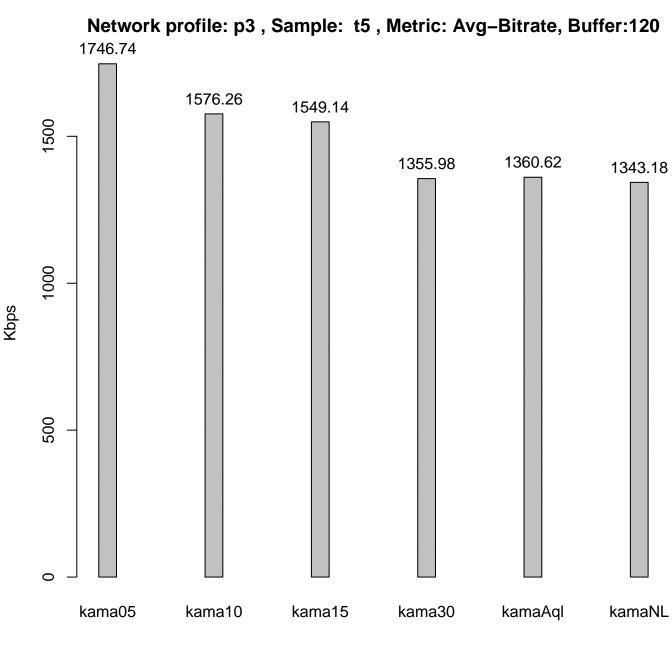


Network profile: p3 , Sample: t4 , Metric: Inefficiency, Buffer:120 0.222387

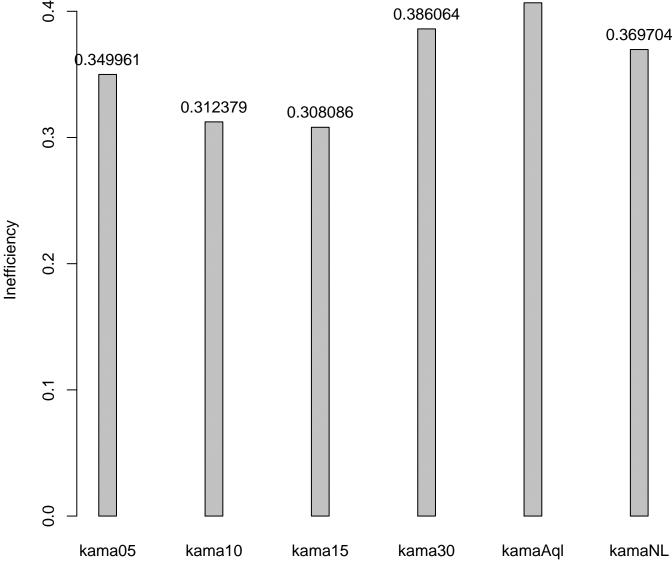


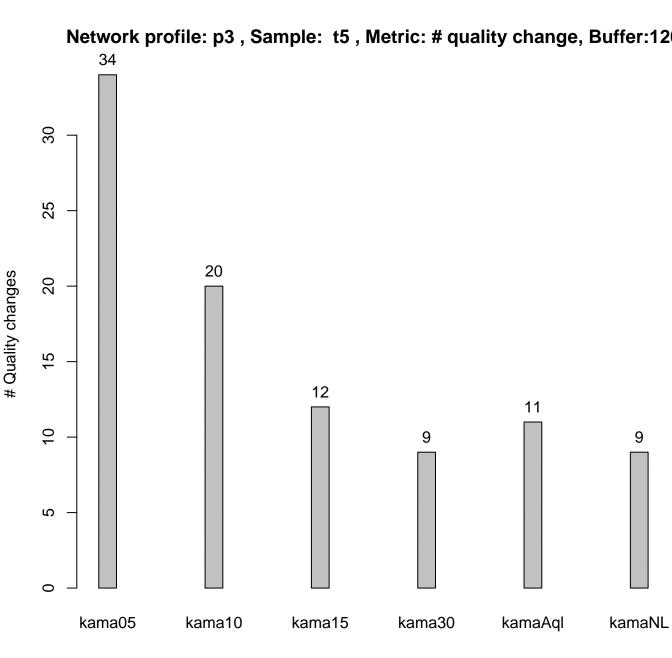


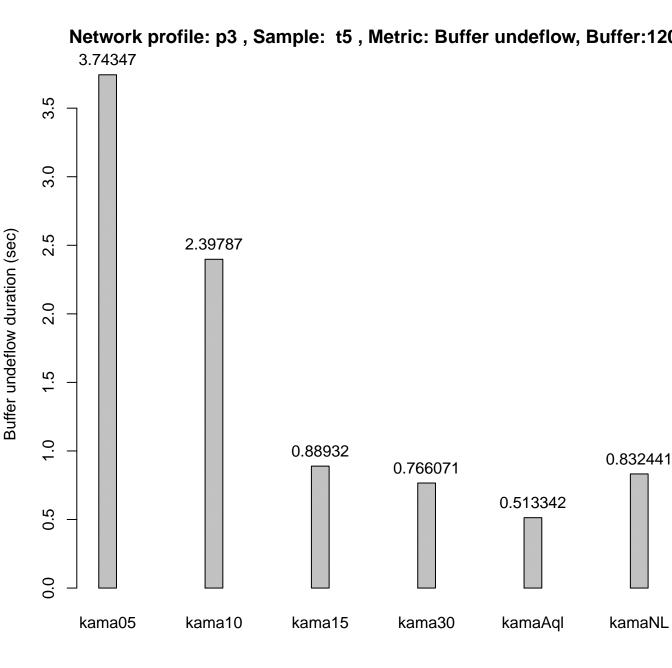


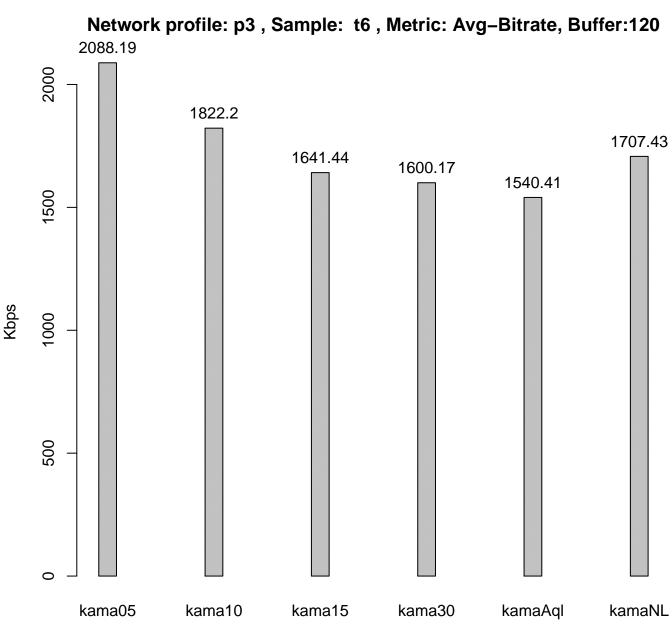


Network profile: p3 , Sample: t5 , Metric: Inefficiency, Buffer:120 0.406742

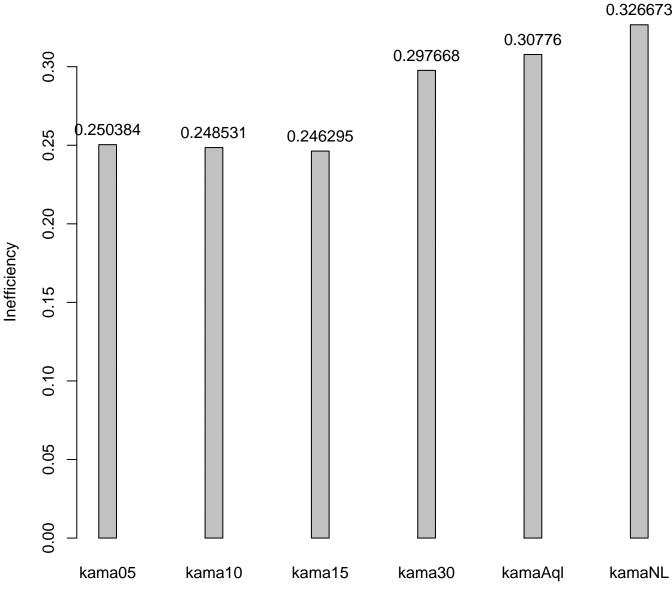






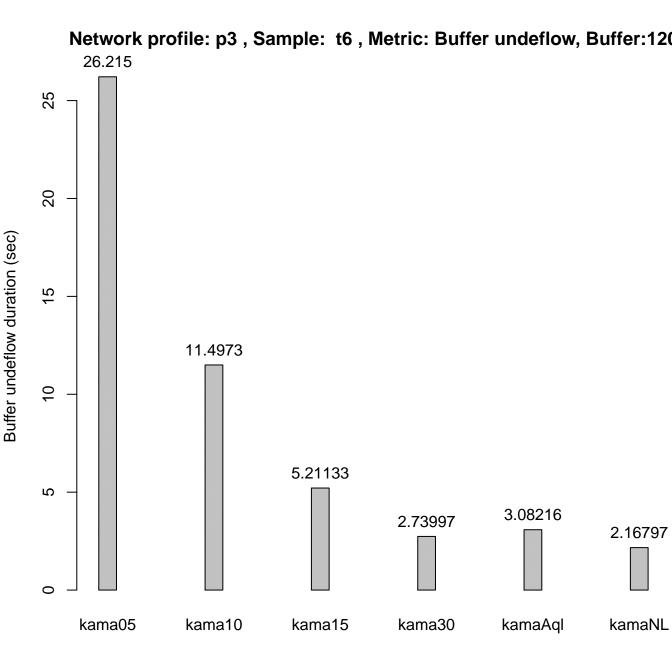


Network profile: p3 , Sample: t6 , Metric: Inefficiency, Buffer:120

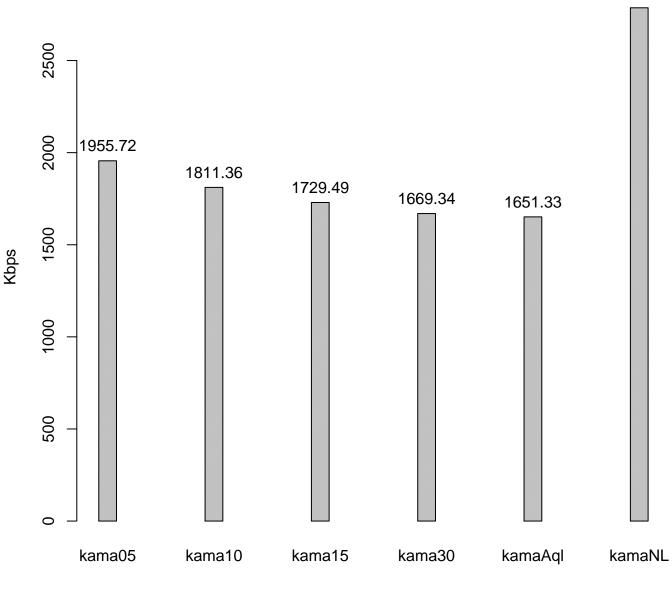


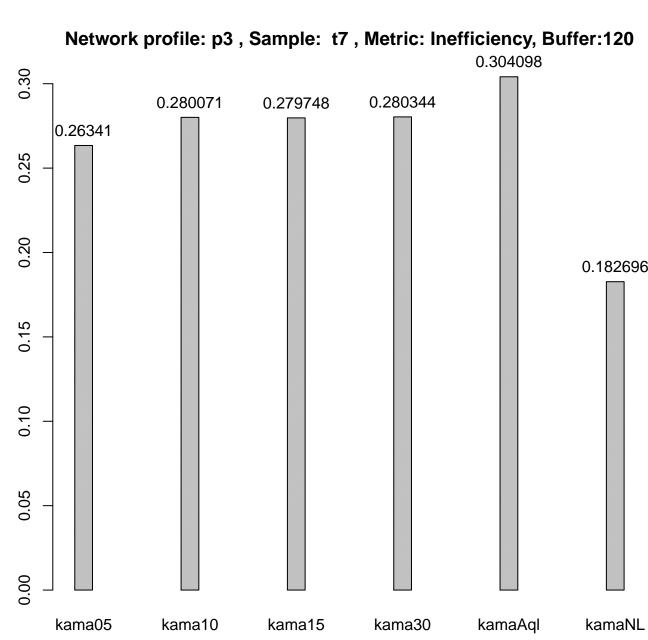
Network profile: p3 , Sample: t6 , Metric: # quality change, Buffer:12 168 150 100 89 56 53 50 36 30 kama05 kama10 kama15 kama30 kamaAql kamaNL

Quality changes



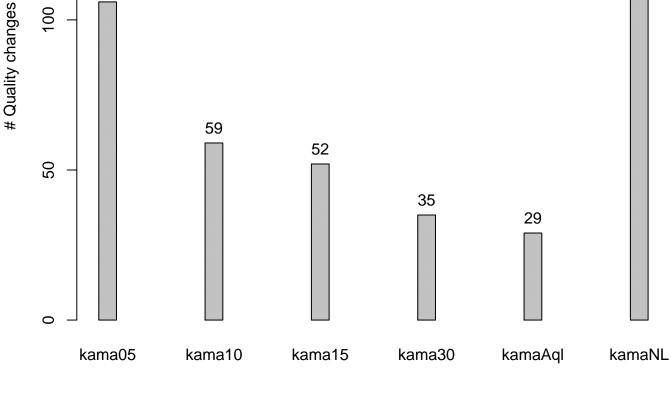
Network profile: p3 , Sample: t7 , Metric: Avg-Bitrate, Buffer:120 2786.34





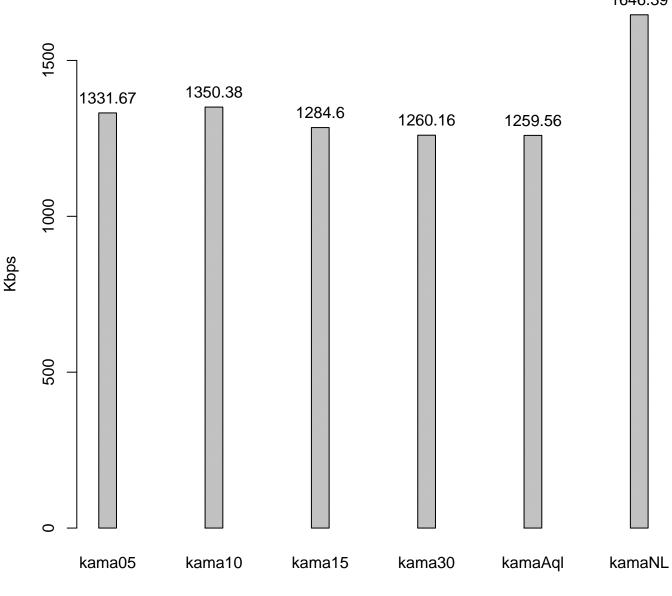
Inefficiency

Network profile: p3 , Sample: t7 , Metric: # quality change, Buffer:12

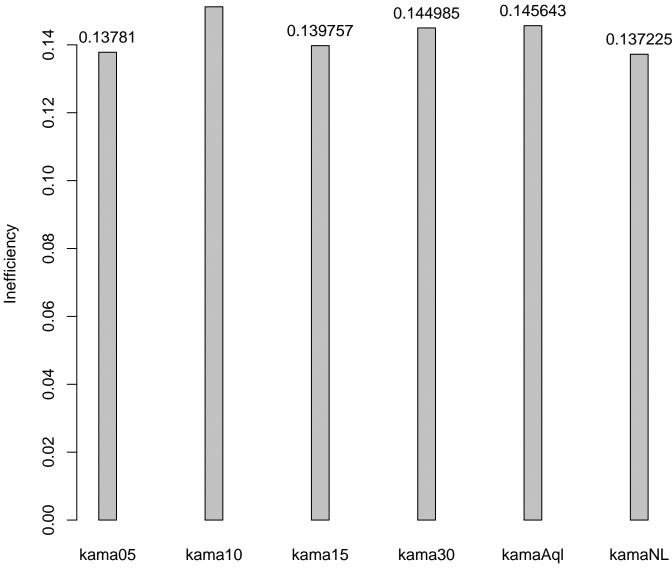


Network profile: p3 , Sample: t7 , Metric: Buffer undeflow, Buffer:120 131.771 120 100 80 9 9 29.905 20 14.2921 8.02451 3.0346 1.36866 kama05 kama10 kamaNL kama15 kama30 kamaAql

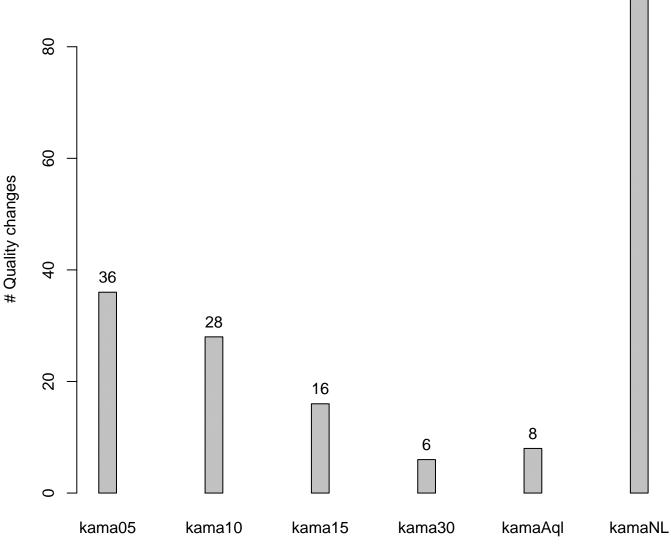
Network profile: p4 , Sample: t1 , Metric: Avg-Bitrate, Buffer:120 1646.39



Network profile: p4 , Sample: t1 , Metric: Inefficiency, Buffer:120 0.151205



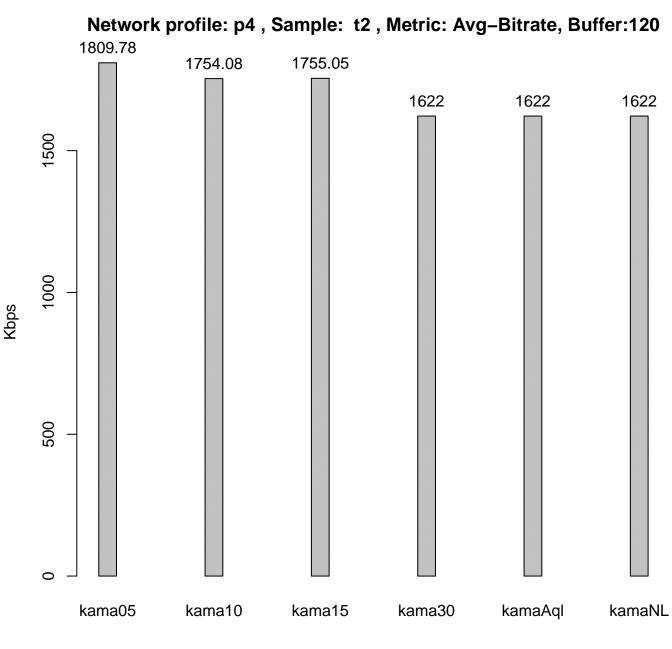
Network profile: p4 , Sample: t1 , Metric: # quality change, Buffer:12

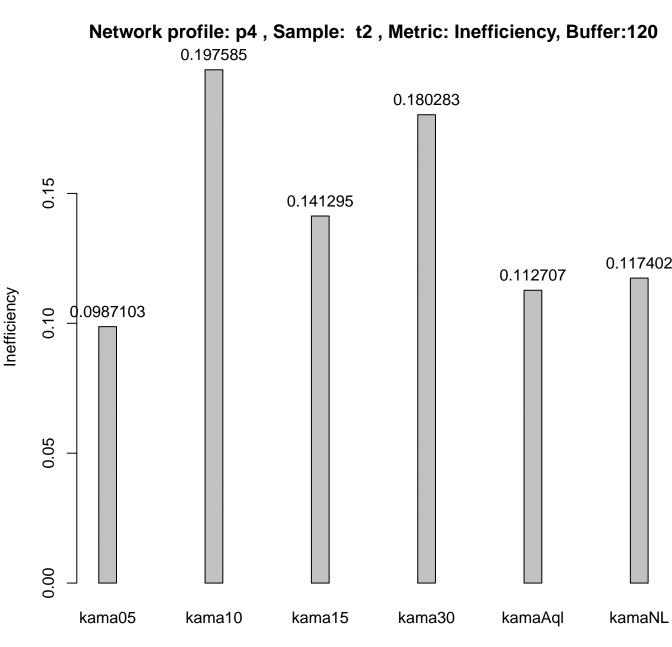


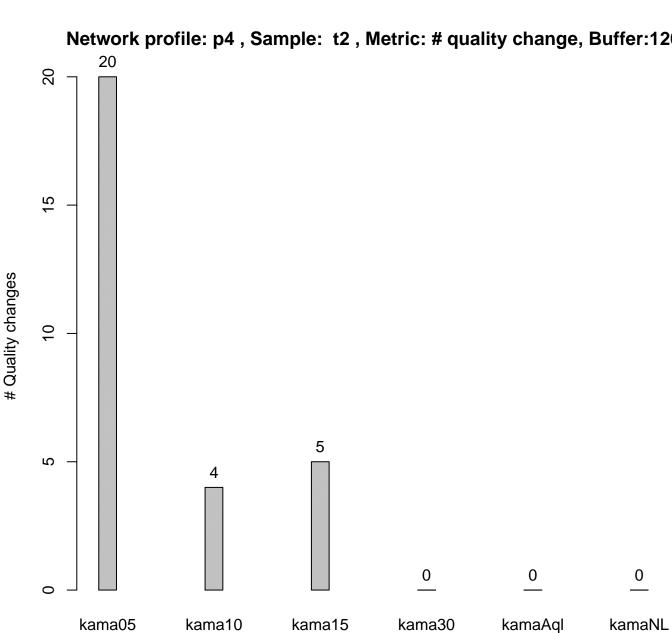
Network profile: p4 , Sample: t1 , Metric: Buffer undeflow, Buffer:120 66.2898 9 50 30.6874 30 24.1103 20.6163 20 15.7596 15.1766 10 kama05 kama10 kamaAql kamaNL

kama15

kama30

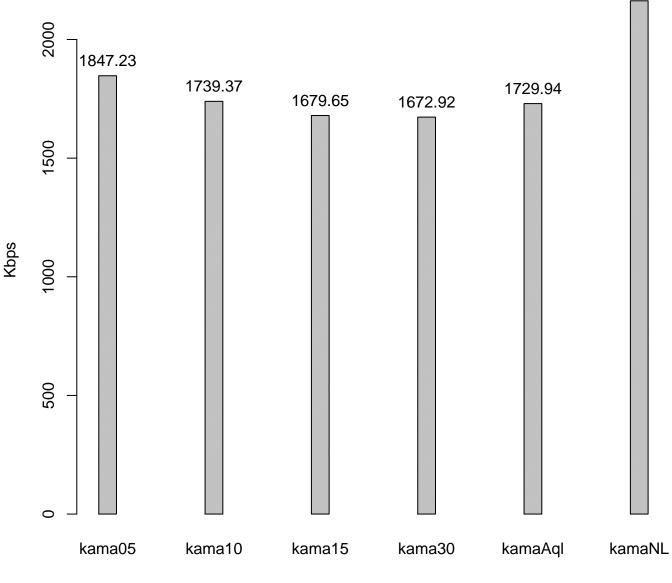




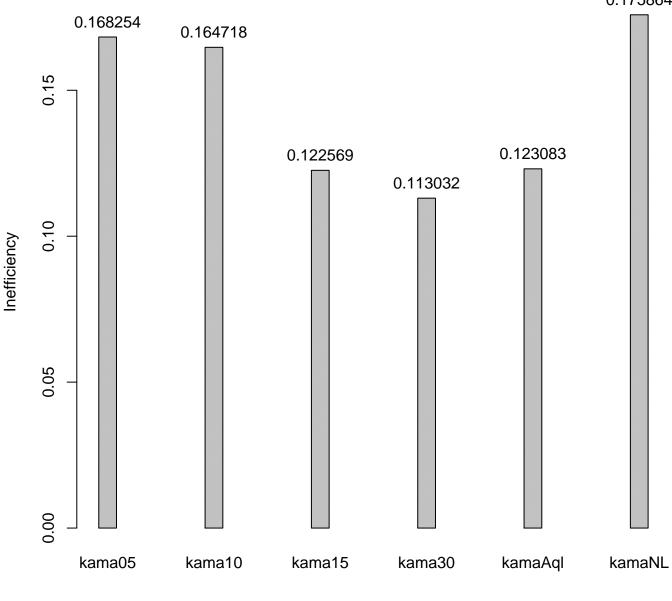


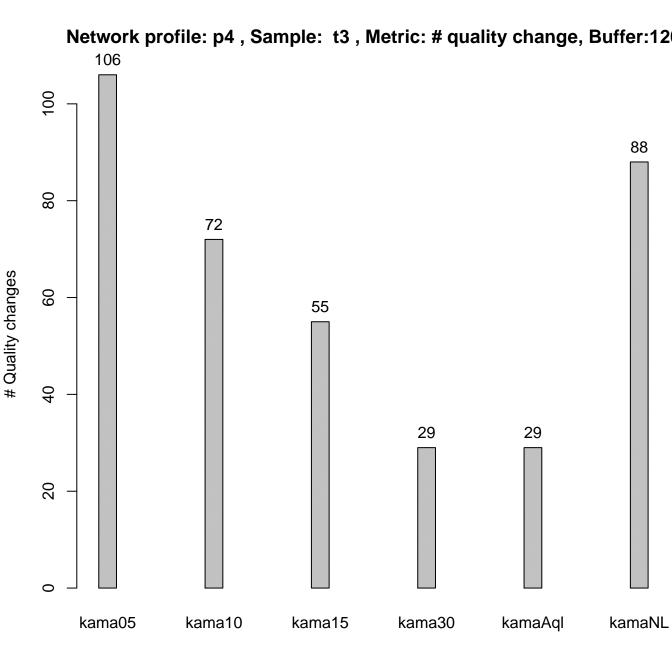
Network profile: p4, Sample: t2, Metric: Buffer undeflow, Buffer:120 10.1566 10 8.82873 8.42182 7.93067 ∞ 7.62512 6.99636 9 $^{\circ}$ kamaNL kama05 kama10 kama15 kama30 kamaAql

Network profile: p4 , Sample: t3 , Metric: Avg-Bitrate, Buffer:120 2163.12

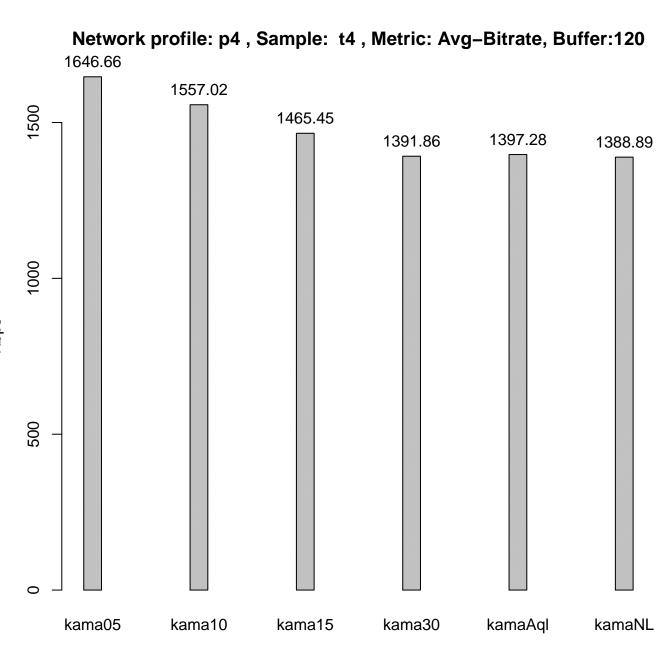


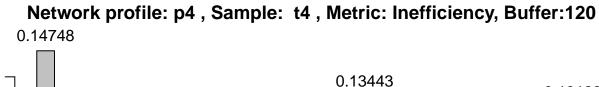
Network profile: p4 , Sample: t3 , Metric: Inefficiency, Buffer:120 0.175864

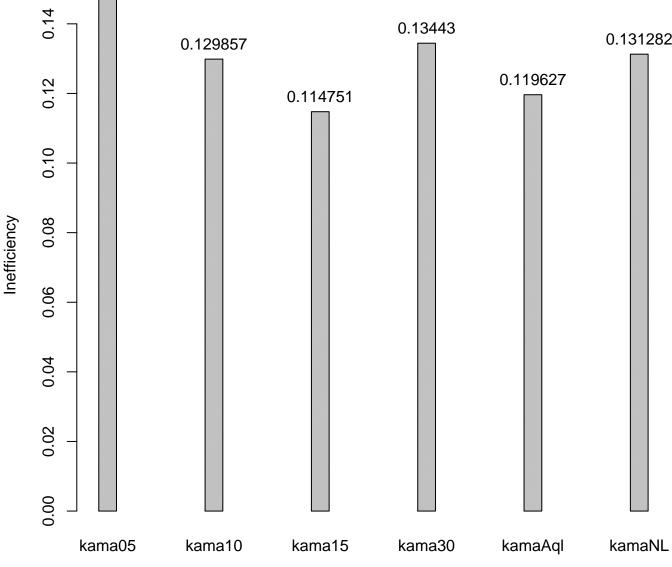


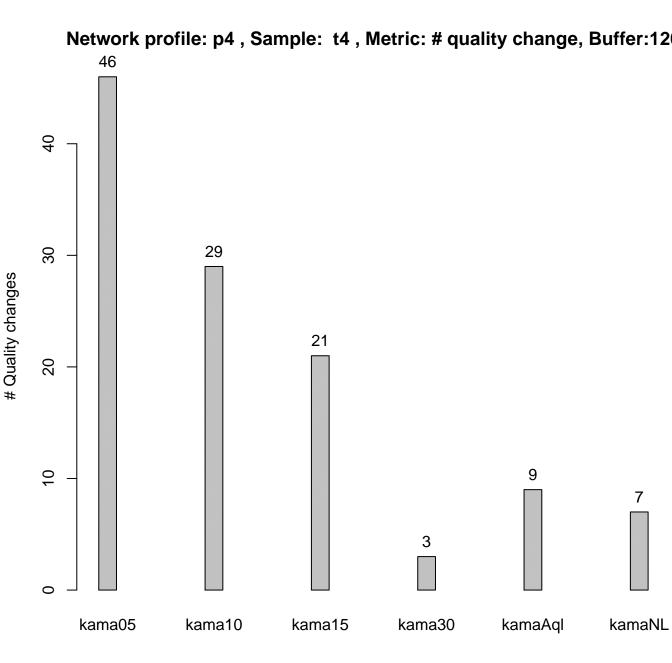


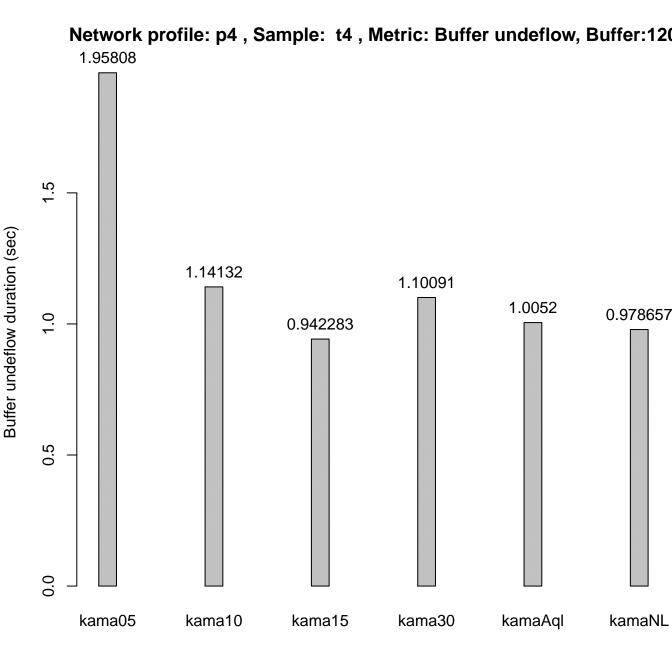
Network profile: p4, Sample: t3, Metric: Buffer undeflow, Buffer:120 27.6539 25 14.9009 15 5.95683 4.3876 2 3.93145 2.09102 kama05 kama10 kama15 kamaAql kamaNL kama30

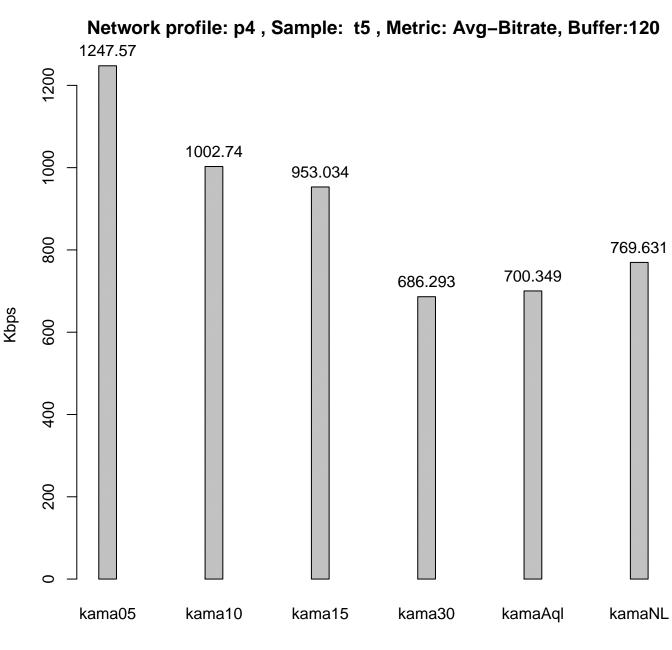




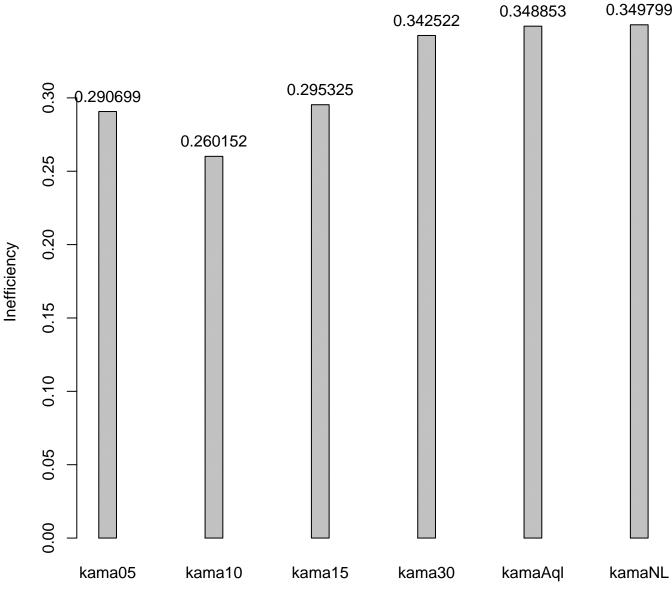


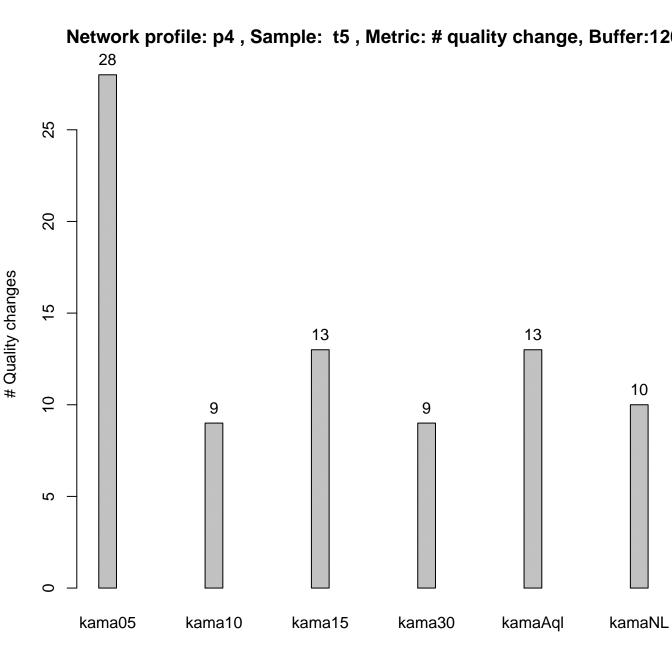


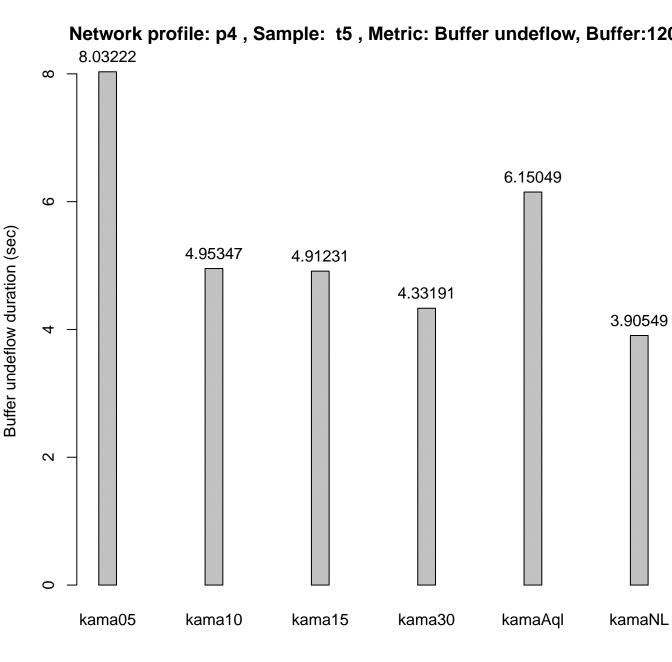


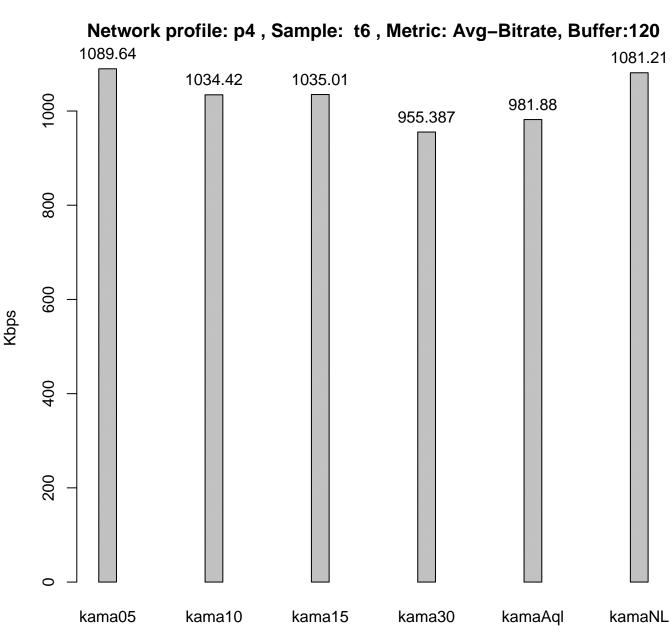


Network profile: p4 , Sample: t5 , Metric: Inefficiency, Buffer:120

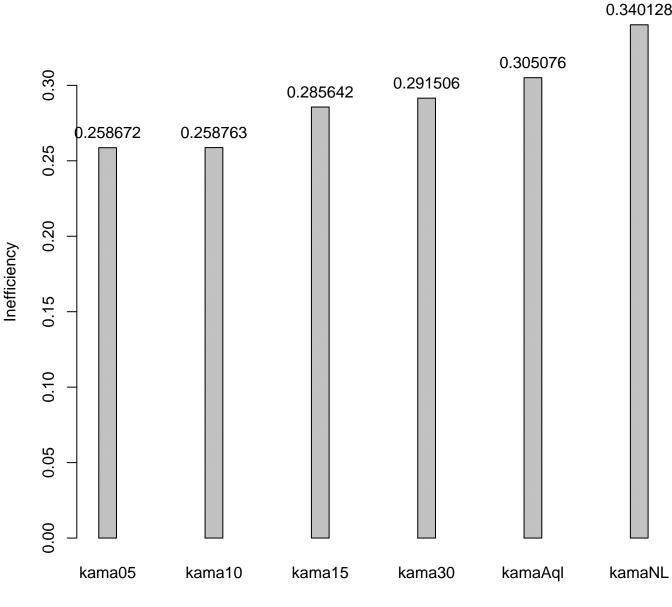






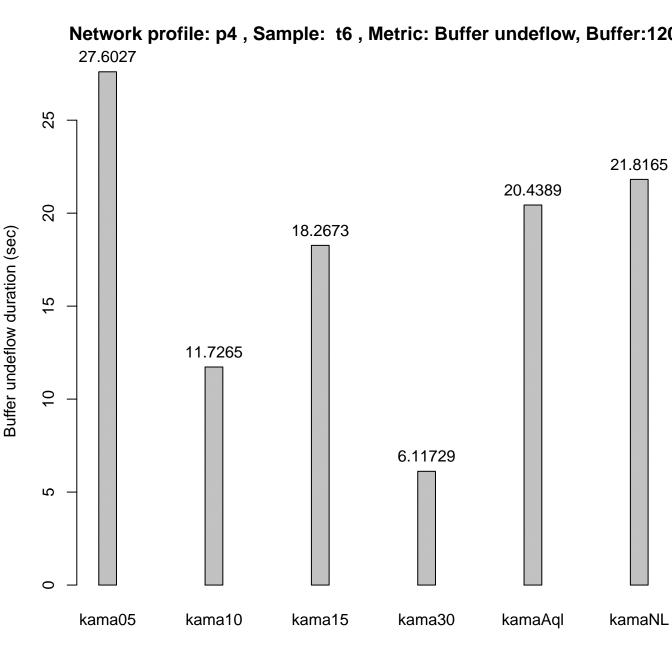


Network profile: p4 , Sample: t6 , Metric: Inefficiency, Buffer:120



Network profile: p4 , Sample: t6 , Metric: # quality change, Buffer:12 175 150 105 100 61 20 42 37 23 kamaNL kama05 kama10 kama15 kama30 kamaAql

Quality changes



Network profile: p4 , Sample: t7 , Metric: Avg-Bitrate, Buffer:120

