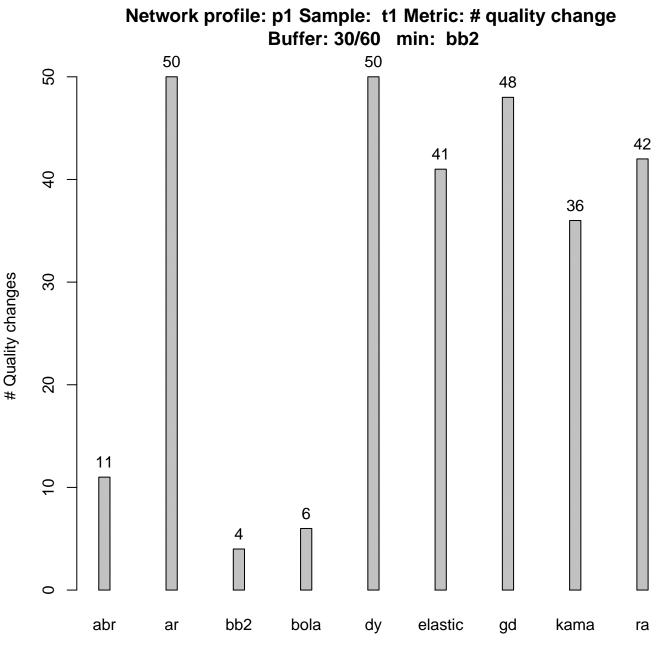
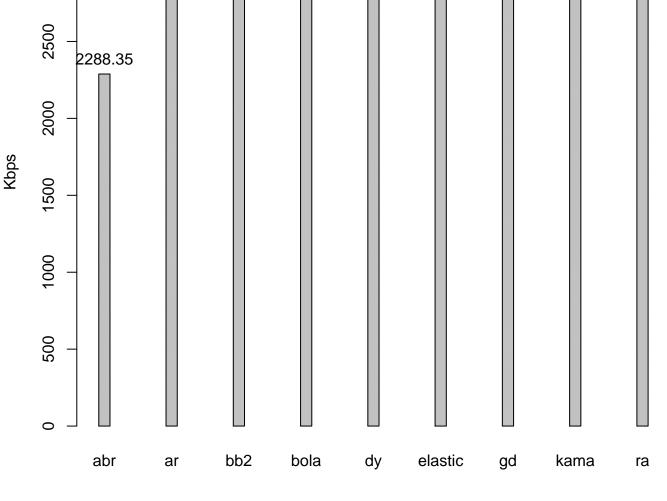


Network profile: p1 Sample: t1 Metric: Inefficiency Buffer: 30/60 min: elastic 0.397339 0.335798 0.327201 0.270608 0.2574 0.263448 0.257973 0.26041 Inefficiency 0.201188 elastic abr bb2 bola dy kama ar gd ra



Network profile: p1 Sample: t2 Metric: Avg-Bitrate Buffer: 30/60 max: bb2 3336.42 3295.02 3221.65 3203.73 3246.31 3160.22 3146.98 3161.25 2288.35

3000

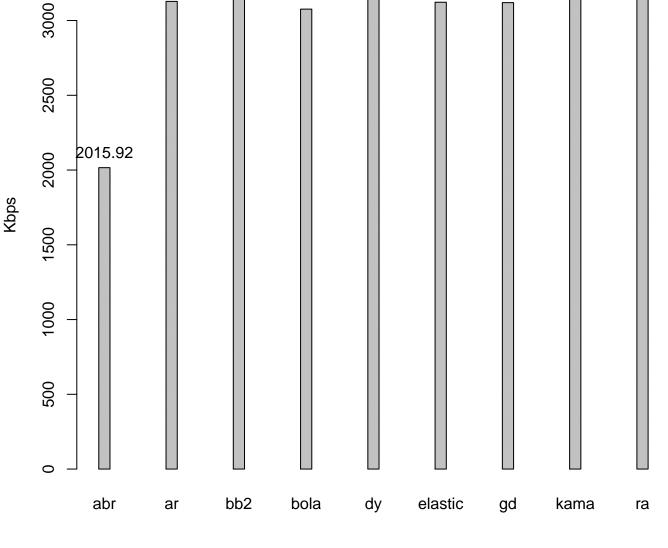


Buffer: 30/60 min: elastic 0.345286 0.30 0.288348 0.266467 0.25 0.205603 0.204796 0.205418 0.19802 0.20 0.186465 0.187061 Inefficiency 0.15 0.10 0.05 elastic abr bb2 bola dy kama ar gd ra

Network profile: p1 Sample: t2 Metric: Inefficiency

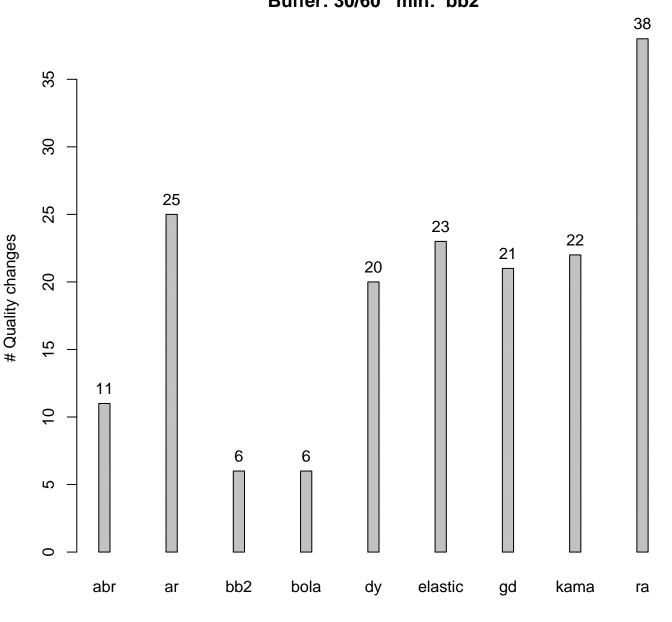
Network profile: p1 Sample: t2 Metric: # quality change Buffer: 30/60 min: bb2 23 20 20 19 17 15 15 # Quality changes 13 11 10 6 6 2 bb2 bola elastic abr dy gd kama ar ra

Network profile: p1 Sample: t3 Metric: Avg-Bitrate Buffer: 30/60 max: bb2 3432.96 3320.25 3350.35 3326.5 3127.95 3122.31 3119.71 3076.22 2015.92



Network profile: p1 Sample: t3 Metric: Inefficiency Buffer: 30/60 min: ra 0.425468 0.38268 0.339567 0.298832  $0.29422_{\ 0.288773}$ 0.288737 0.231827 Inefficiency 0.221963 elastic abr bb2 bola dy kama ar gd ra

## Network profile: p1 Sample: t3 Metric: # quality change Buffer: 30/60 min: bb2



Network profile: p1 Sample: t4 Metric: Avg-Bitrate Buffer: 30/60 max: bb2 3411.09 3366.66 3360.63 3338.22 3312.84 3277.06 3336.69 3000 2601.9 2500 2000 1798.6 Kbps 1500 1000

elastic

gd

kama

ra

dy

500

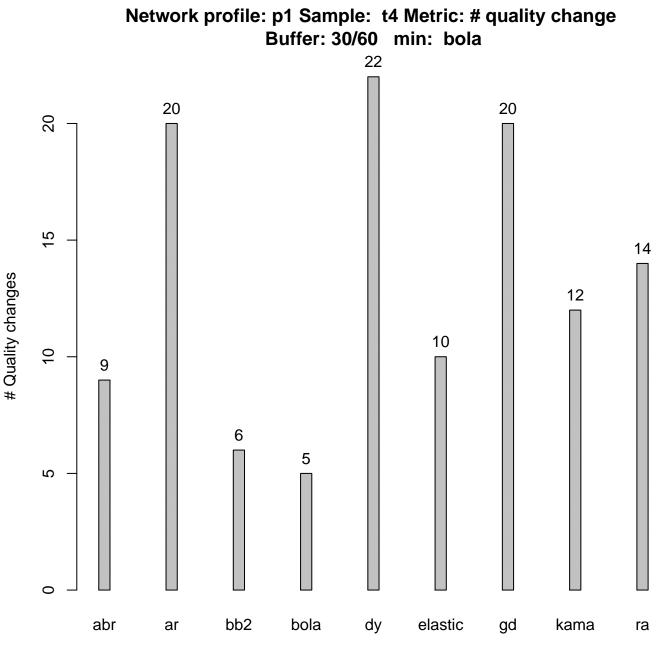
abr

bb2

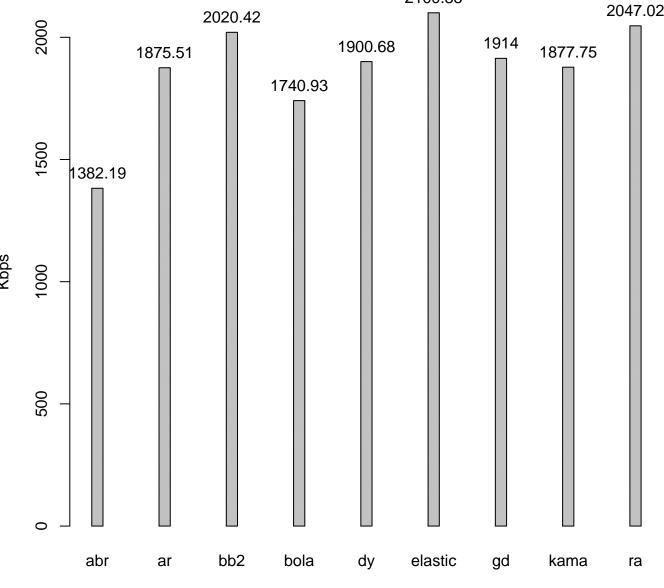
ar

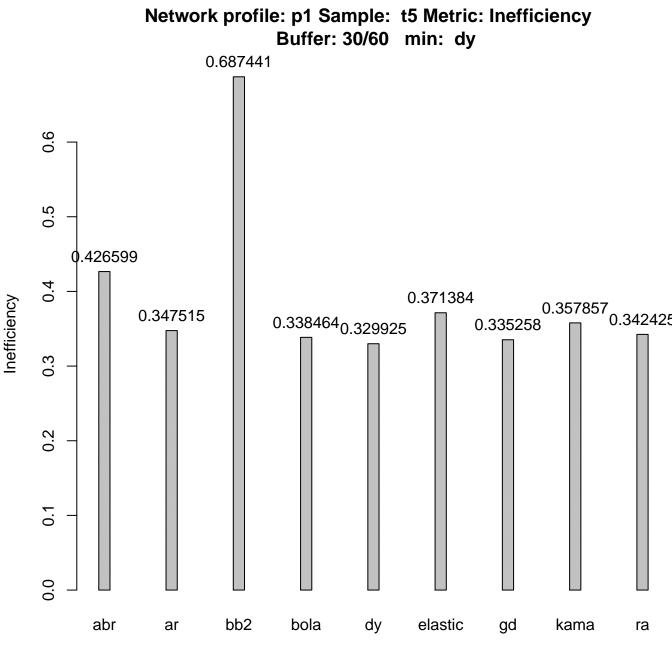
bola

**Network profile: p1 Sample: t4 Metric: Inefficiency** Buffer: 30/60 min: elastic 0.402043 70.384585 0.356724 0.233122 0.224488 0.221017 Inefficiency 0.193441 0.166636 0.160177 elastic abr bb2 bola dy kama ar gd ra



Network profile: p1 Sample: t5 Metric: Avg-Bitrate
Buffer: 30/60 max: elastic
2100.35



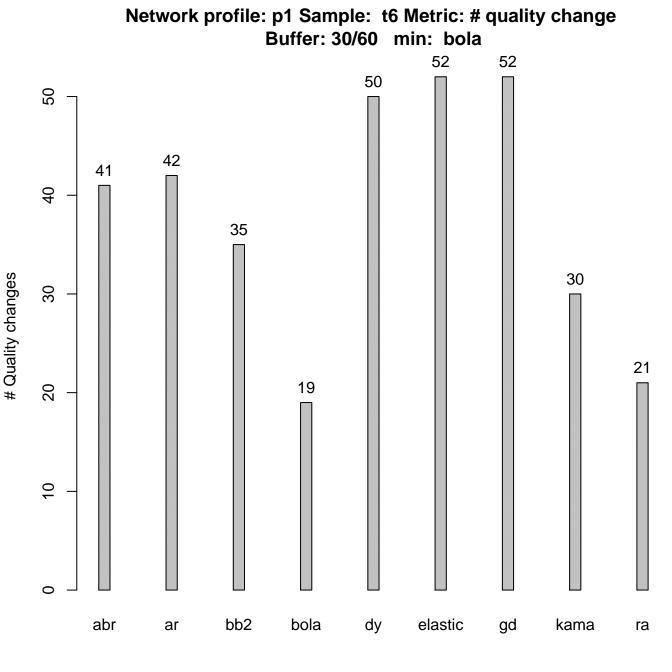


Network profile: p1 Sample: t5 Metric: # quality change Buffer: 30/60 min: abr 11 10 8 8 8 8  $\infty$ # Quality changes 6 6 9  $\alpha$ bb2 bola elastic abr dy gd kama ar ra

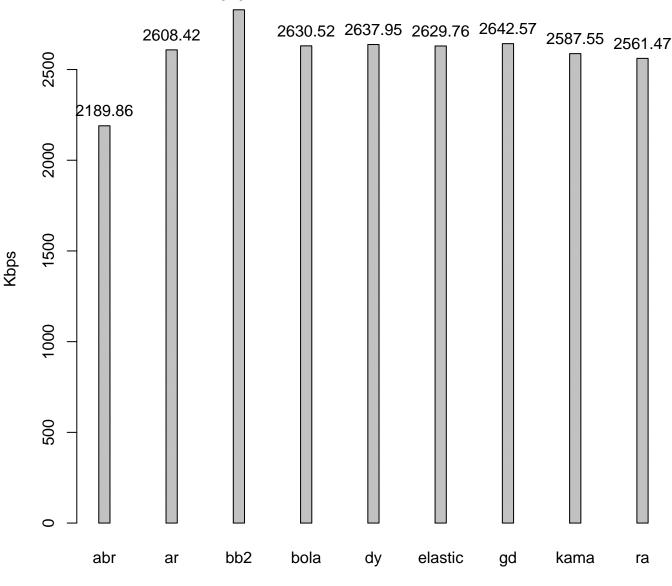
Buffer: 30/60 max: bb2 3698.9 3500 3000 2759.03 2586.9 2667.41 2716 2686.91 2625.09 2662.76 2500 2228.36 2000 1500 1000 500 elastic abr bb2 bola dy kama ar gd ra

Network profile: p1 Sample: t6 Metric: Avg-Bitrate

**Network profile: p1 Sample: t6 Metric: Inefficiency** Buffer: 30/60 min: elastic 0.45522 **0**.355483 0.298817 0.289507 0.286153 0.285238 0.275902 0.269788 0.249317 Inefficiency 0.1 elastic abr bb2 bola dy kama ar gd ra

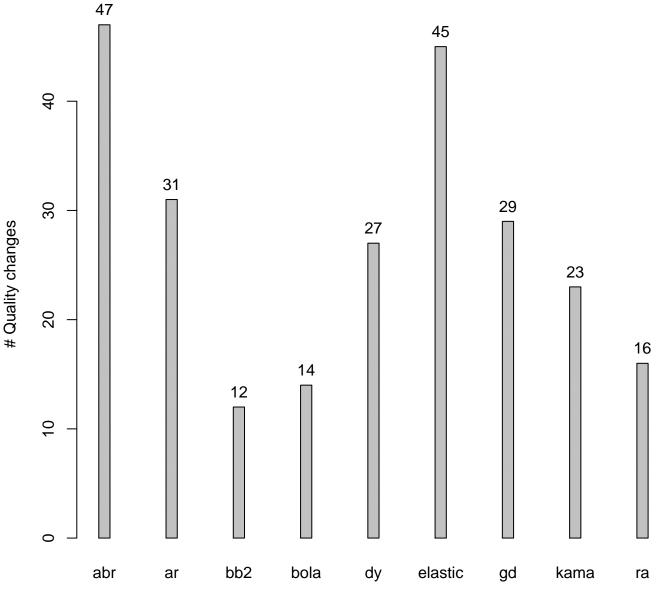


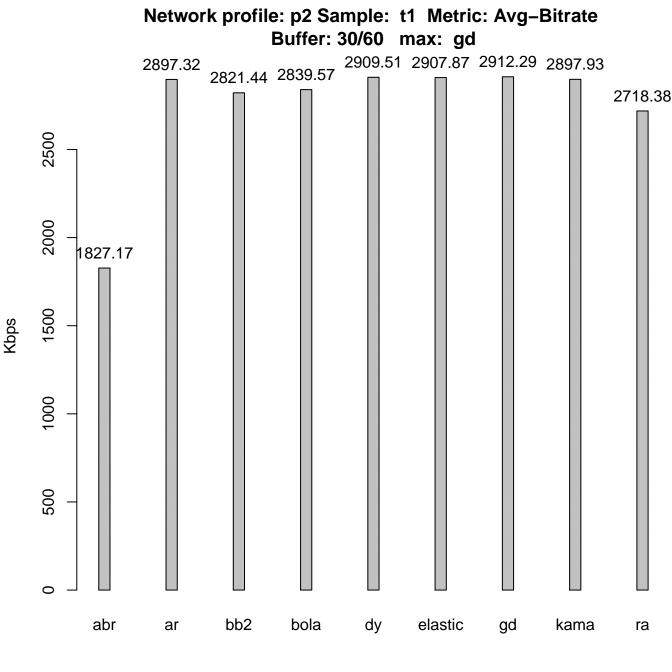
Network profile: p1 Sample: t7 Metric: Avg-Bitrate
Buffer: 30/60 max: bb2
2829.24



**Network profile: p1 Sample: t7 Metric: Inefficiency** Buffer: 30/60 min: elastic 0.431487 70.381902 0.268223 0.250377 0.24818 0.247964 0.244066 0.235741 Inefficiency 0.212398 elastic abr bb2 bola dy kama ar gd ra

Network profile: p1 Sample: t7 Metric: # quality change Buffer: 30/60 min: bb2





**Network profile: p2 Sample: t1 Metric: Inefficiency** Buffer: 30/60 min: elastic 0.377443 0.331089 0.301034  $0.266722^{0.272808}$ 0.270306 0.265484 0.257425 0.210154

elastic

gd

kama

ra

0.35

0.30

0.25

0.20

0.15

0.10

0.05

abr

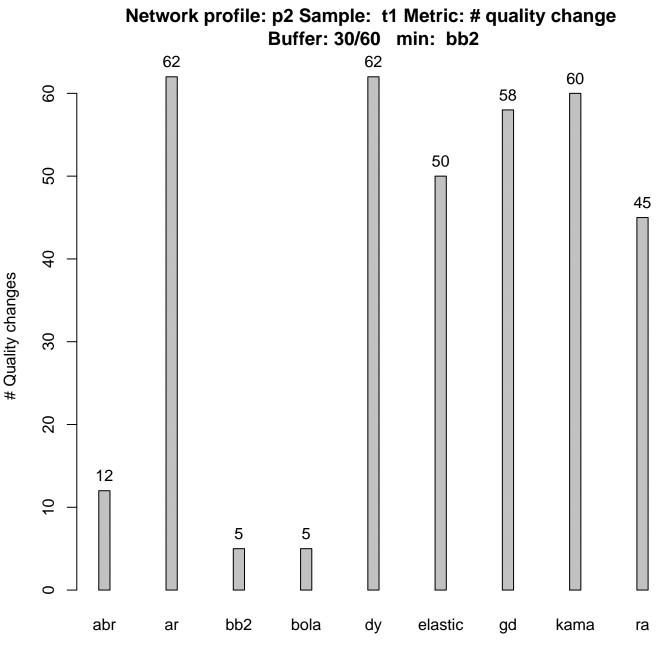
bb2

ar

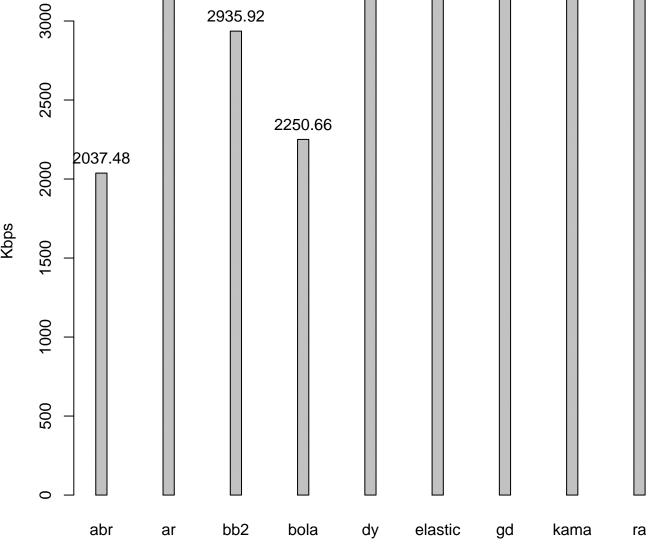
bola

dy

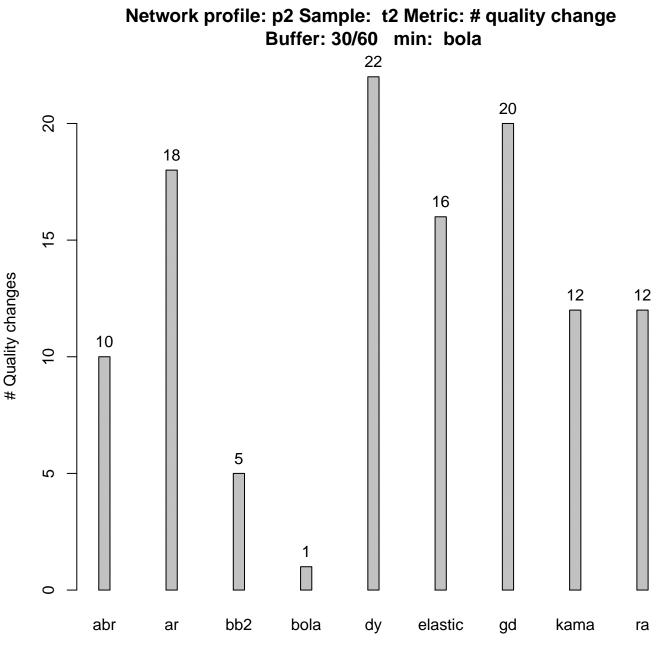
Inefficiency

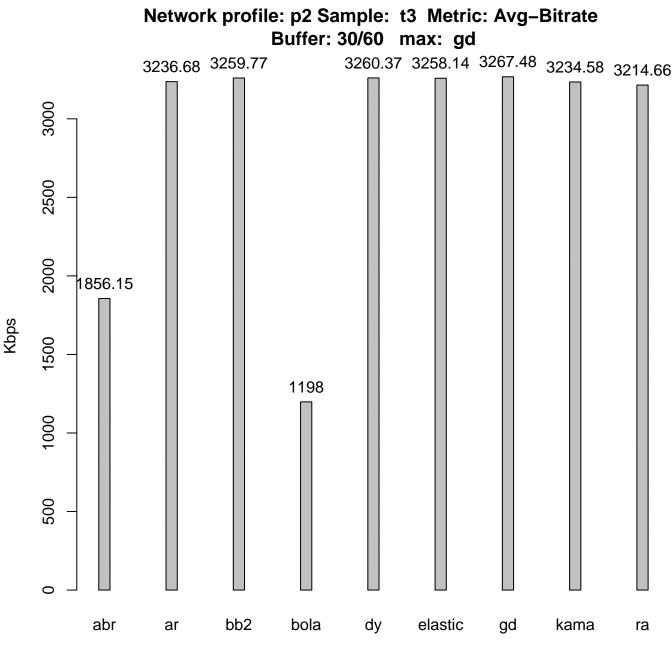


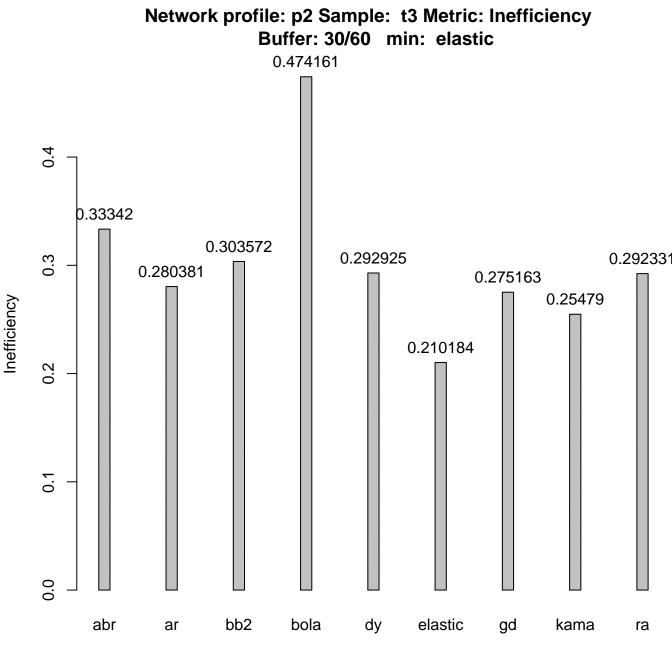
Network profile: p2 Sample: t2 Metric: Avg-Bitrate Buffer: 30/60 max: elastic 3225.93 3248.14 3219.85 3198.79 3202.98 3222.43 2935.92 2250.66



**Network profile: p2 Sample: t2 Metric: Inefficiency** Buffer: 30/60 min: elastic 0.312422 0.280432 0.283709 0.25 0.20 0.187618 0.186193 0.178177 0.174492 0.167634 0.168136 Inefficiency 0.15 0.10 0.05 elastic abr bb2 bola dy kama ar gd ra







Network profile: p2 Sample: t3 Metric: # quality change Buffer: 30/60 min: bola 52 50 46 44 44 42 9 # Quality changes 30 30 20 13 10 6 bb2 bola elastic abr dy gd kama ar ra

Network profile: p2 Sample: t4 Metric: Avg-Bitrate Buffer: 30/60 max: kama 3194.3 3172.04 3183.94 3175.46 3016.7 3012.64 3000 2972.9 2500 2289.26 2000 1591.08 Kbps 1500 1000 500 bb2 bola elastic abr dy kama ar gd ra

Network profile: p2 Sample: t4 Metric: Inefficiency Buffer: 30/60 min: elastic 0.379506 0.35 0.344636 0.30 0.261634 0.25 Inefficiency 0.20 0.181037 0.173629<sub>0.167417</sub> 0.171182 0.158292 0.15 0.134848 0.10 0.05 elastic abr bb2 bola dy kama ar gd ra

Network profile: p2 Sample: t4 Metric: # quality change Buffer: 30/60 min: bola 18 17 17 16 14 14 8 5 3

bb2

bola

dy

elastic

gd

kama

ra

15

10

2

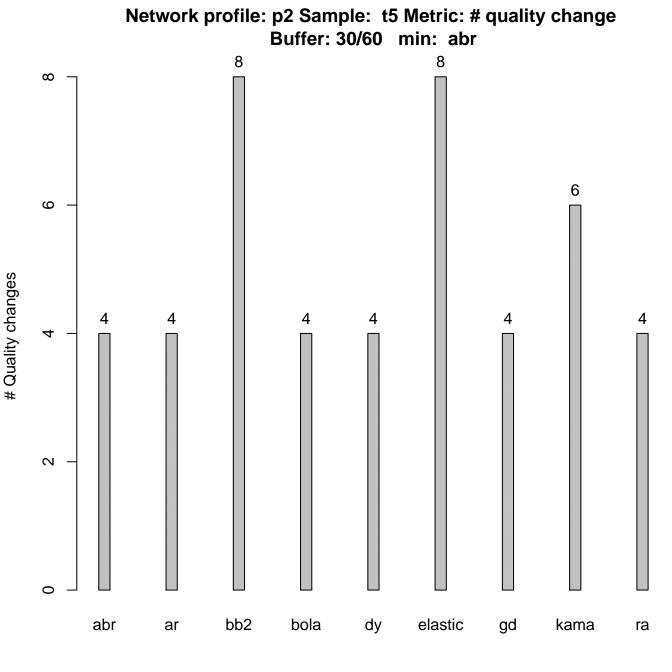
abr

ar

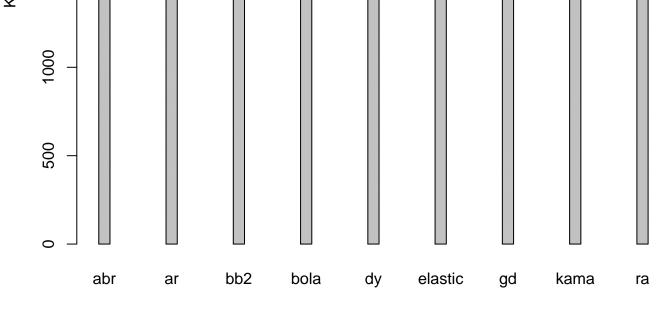
# Quality changes

Network profile: p2 Sample: t5 Metric: Avg-Bitrate Buffer: 30/60 max: kama 1911.43 1924.33 1916.79 1924.29 1840.57 1838.12 1837.36 1754.47 1500 1216.97 500 elastic abr bb2 bola dy gd kama ar ra

**Network profile: p2 Sample: t5 Metric: Inefficiency** Buffer: 30/60 min: dy 0.578587 0.480441 0.4407160.4442570.437347 0.4376460.435822  $0.436527_{0.430147}$ 0.4 Inefficiency elastic abr bb2 bola dy kama ar gd ra



Network profile: p2 Sample: t6 Metric: Avg-Bitrate Buffer: 30/60 max: elastic 2870.94 2903.57 2901.36 2882.97 2851.89 2880.14 2857.17 2530.78 2500 2000 1752.19 1500 1000



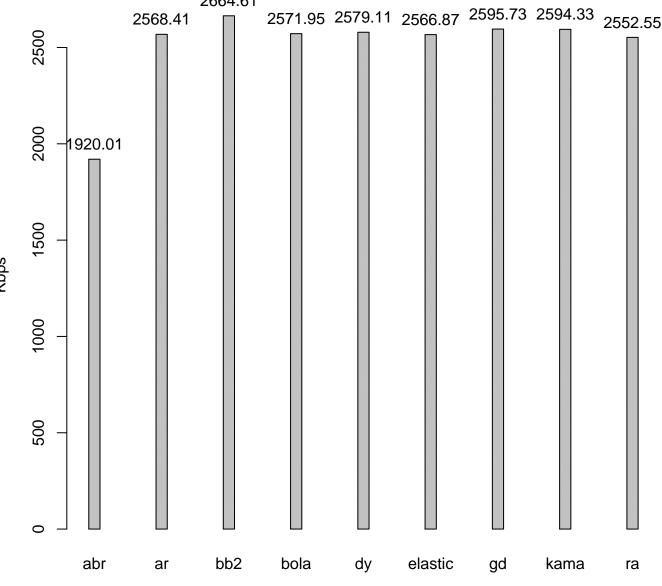
**Network profile: p2 Sample: t6 Metric: Inefficiency** Buffer: 30/60 min: elastic 0.43317 0.4 0.350563 0.306594 0.295404  $0.279895_{0.275854}$ 0.279804 0.274187 0.235904 Inefficiency elastic abr bb2 bola dy kama ar gd ra

Network profile: p2 Sample: t6 Metric: # quality change Buffer: 30/60 min: bola 53 50 42 4 36 36 33 32 32 # Quality changes 30 28 20 17 10 bb2 bola elastic abr dy gd kama ar ra

Network profile: p2 Sample: t7 Metric: Avg-Bitrate

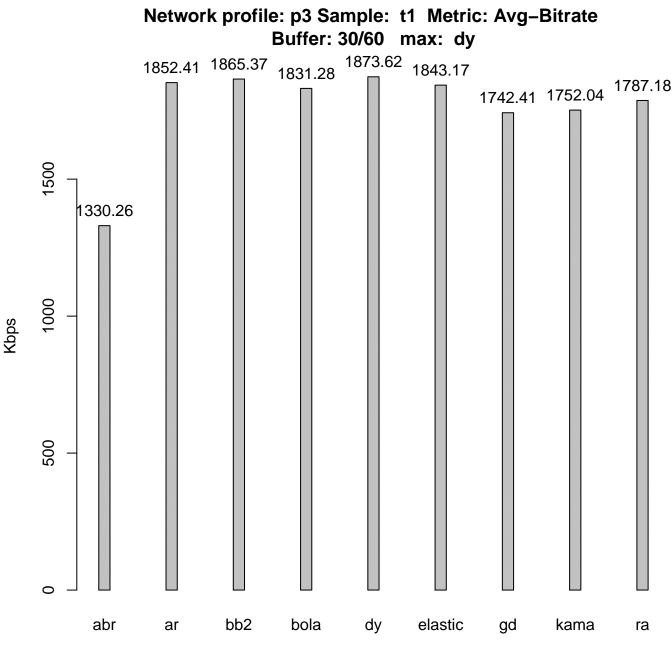
Buffer: 30/60 max: bb2

2664.61
2570.44 = 2574.05.2570.41.0500.07.2595.73.2594.33

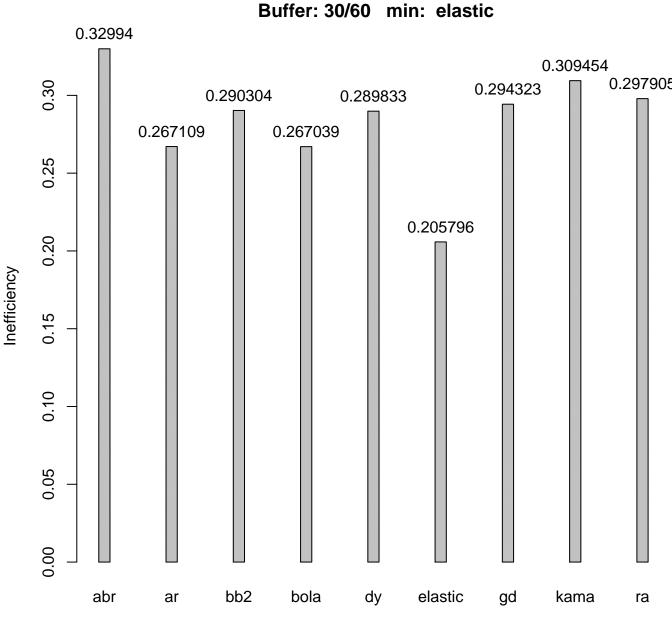


**Network profile: p2 Sample: t7 Metric: Inefficiency** Buffer: 30/60 min: elastic 0.39989 0.353768 0.287041 0.2628880.2645670.262447 0.252371 0.248911 Inefficiency 0.204852 0.2 elastic abr bb2 bola dy kama ar gd ra

Network profile: p2 Sample: t7 Metric: # quality change Buffer: 30/60 min: bola 42 40 36 30 30 30 28 28 # Quality changes 20 16 13 12 10 bb2 bola elastic abr dy gd kama ar ra

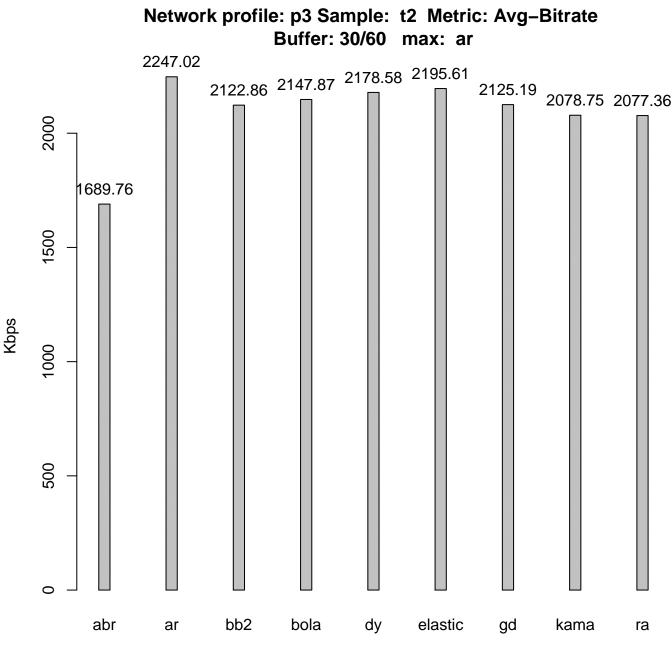


Network profile: p3 Sample: t1 Metric: Inefficiency

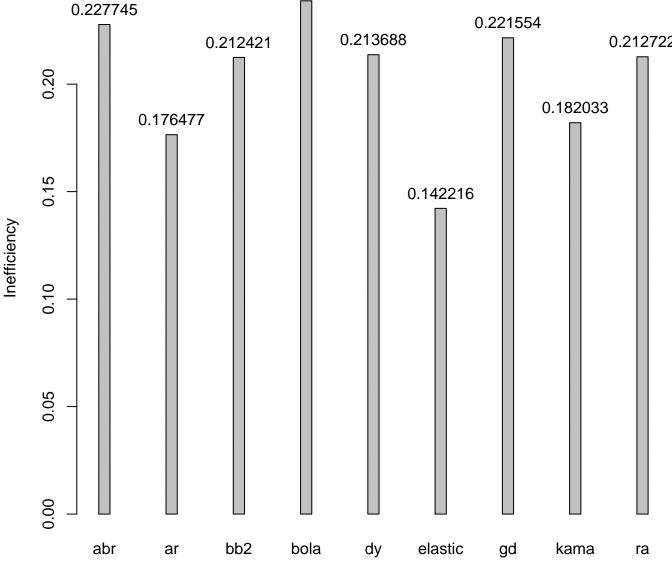


Buffer: 30/60 min: bola 53 50 50 47 41 40 37 34 # Quality changes 30 28 20 10 10 8 bb2 bola elastic abr dy gd kama ar ra

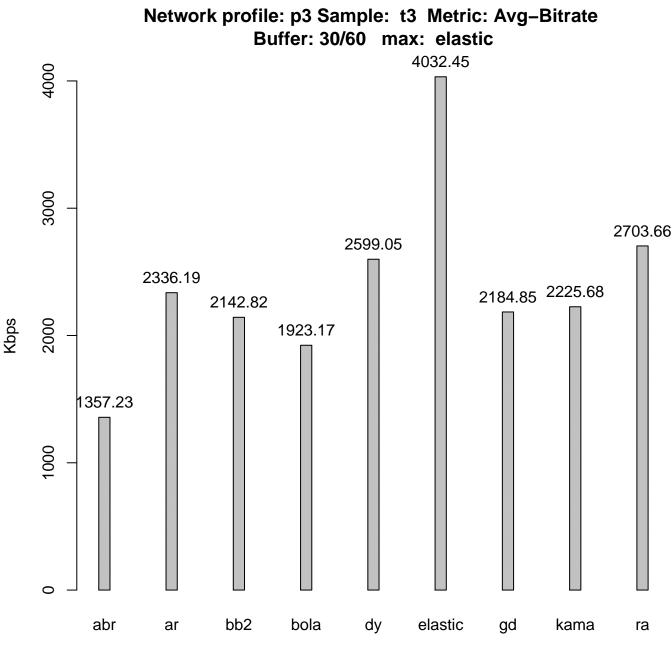
Network profile: p3 Sample: t1 Metric: # quality change

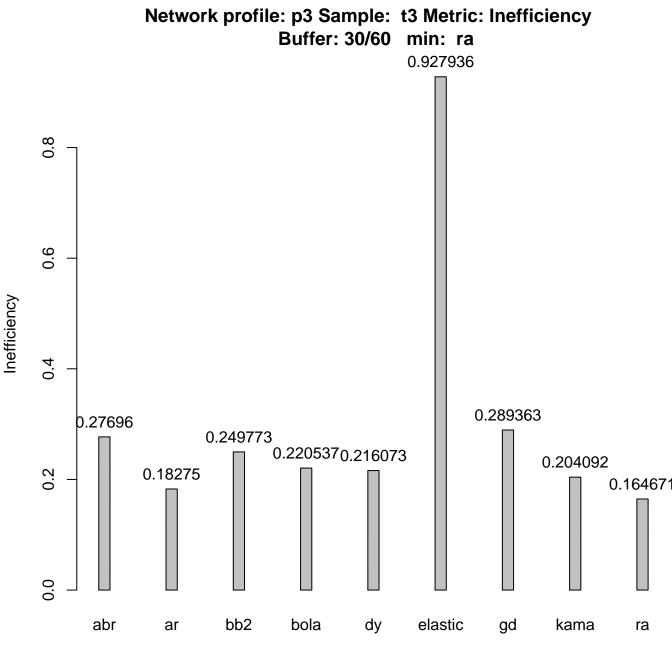


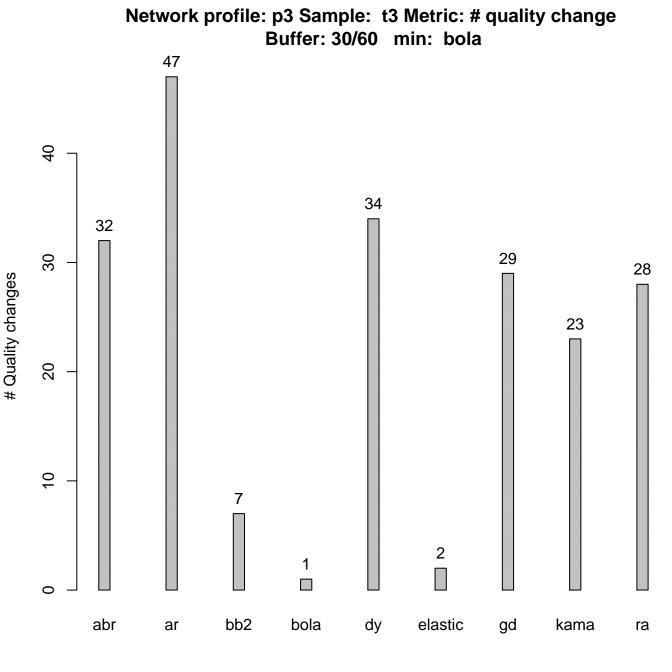
Network profile: p3 Sample: t2 Metric: Inefficiency Buffer: 30/60 min: elastic 0.238771 0.221554 0.213688 0.212421



Network profile: p3 Sample: t2 Metric: # quality change Buffer: 30/60 min: abr 31 30 25 24 23 23 20 # Quality changes 15 14 14 10 10 5 2 4 bb2 bola elastic abr dy gd kama ar ra

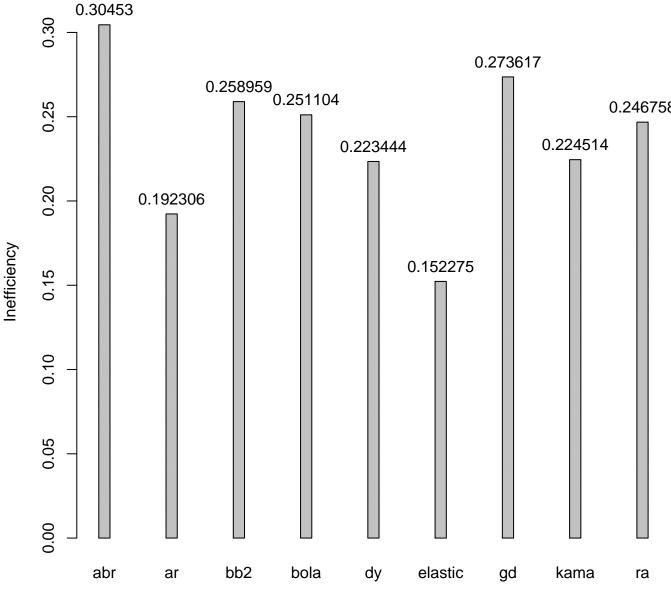




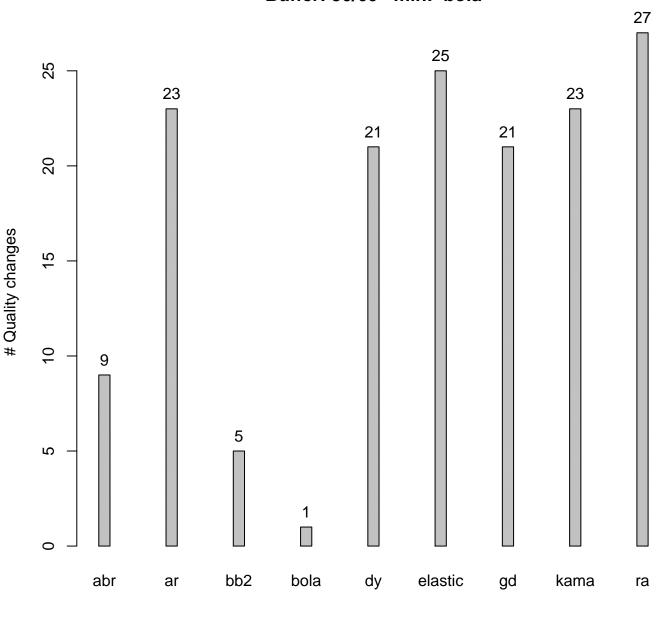


Network profile: p3 Sample: t4 Metric: Avg-Bitrate Buffer: 30/60 max: ar 2281.08 2262.34 2191.93 2233.53 2243.68 2178.33 2075.68 2000 1744.98 1500 1401.75 Kbps 500 elastic abr bb2 bola dy kama ar gd ra

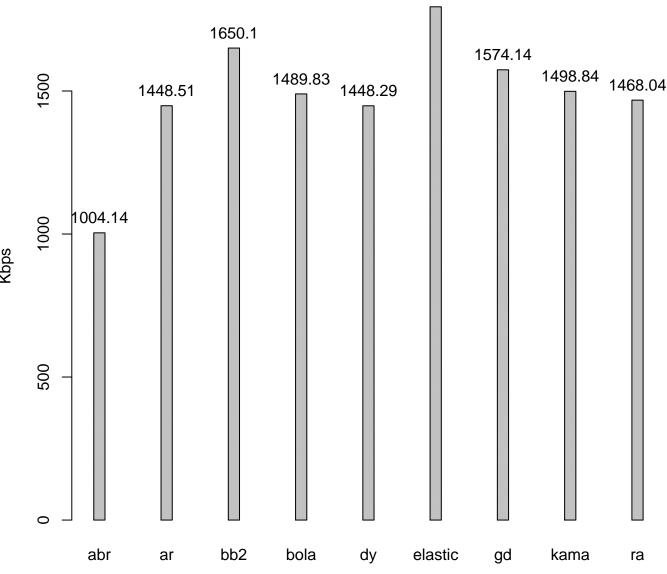
Network profile: p3 Sample: t4 Metric: Inefficiency Buffer: 30/60 min: elastic



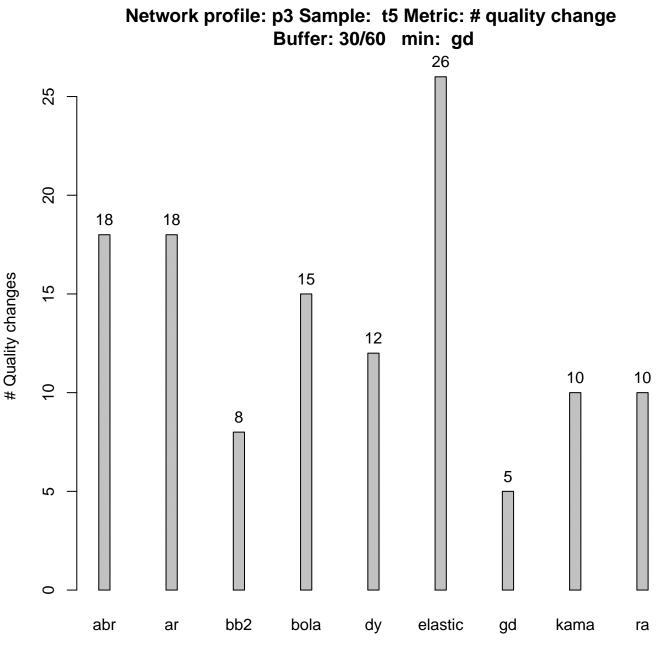
## Network profile: p3 Sample: t4 Metric: # quality change Buffer: 30/60 min: bola



Network profile: p3 Sample: t5 Metric: Avg-Bitrate
Buffer: 30/60 max: elastic
1794.37

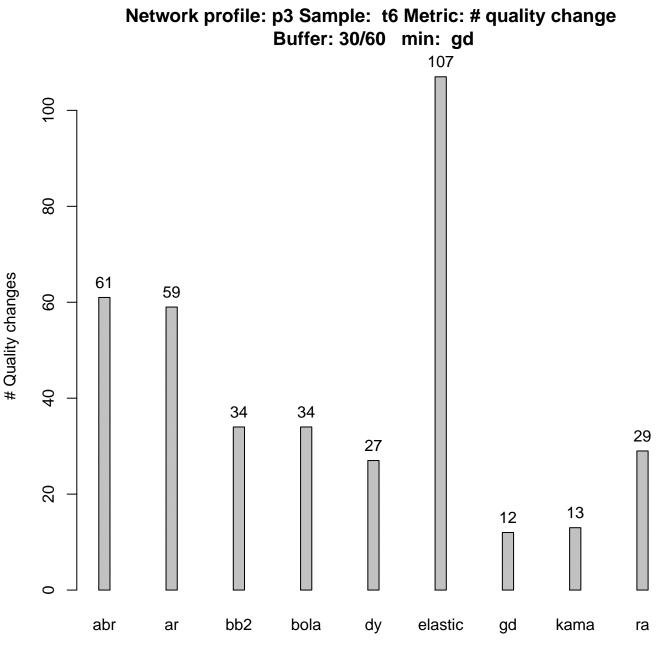


Network profile: p3 Sample: t5 Metric: Inefficiency Buffer: 30/60 min: elastic 0.550449 0.388135 ₱.382705 0.333839<sup>0.341433</sup> 0.322592 0.311383 0.295366 Inefficiency 0.272749 elastic abr bb2 bola dy kama ar gd ra

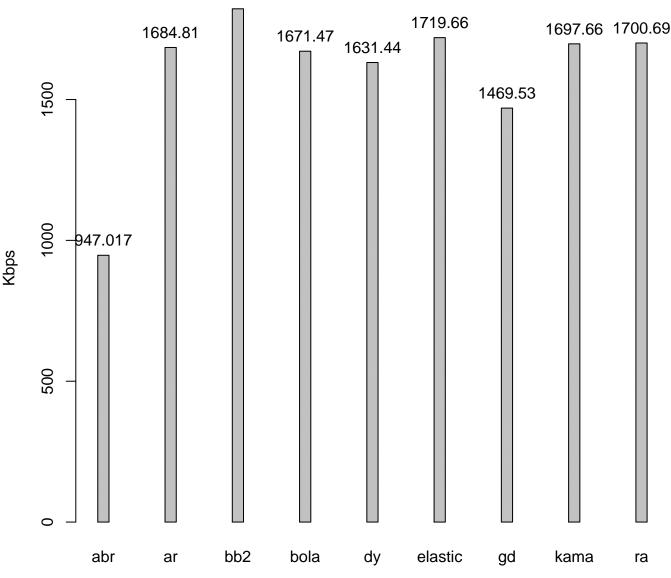


Network profile: p3 Sample: t6 Metric: Avg-Bitrate Buffer: 30/60 max: bb2 2442.78 2000 1681.81 1676.16 1483.95 1522.59 1532.76 1526.97 1500 1465.86 1230.08 Kbps 1000 500 elastic abr bb2 bola dy kama ar gd ra

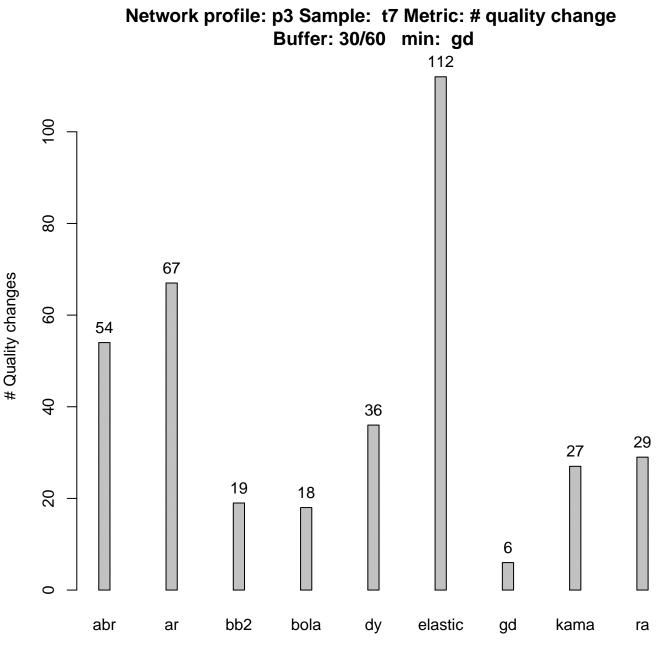
Network profile: p3 Sample: t6 Metric: Inefficiency Buffer: 30/60 min: elastic 0.407453 70.383925 0.32311 0.294268<sub>0.289461</sub> 0.277176 0.264029 0.257874 Inefficiency 0.208412 elastic abr bb2 bola dy kama ar gd ra

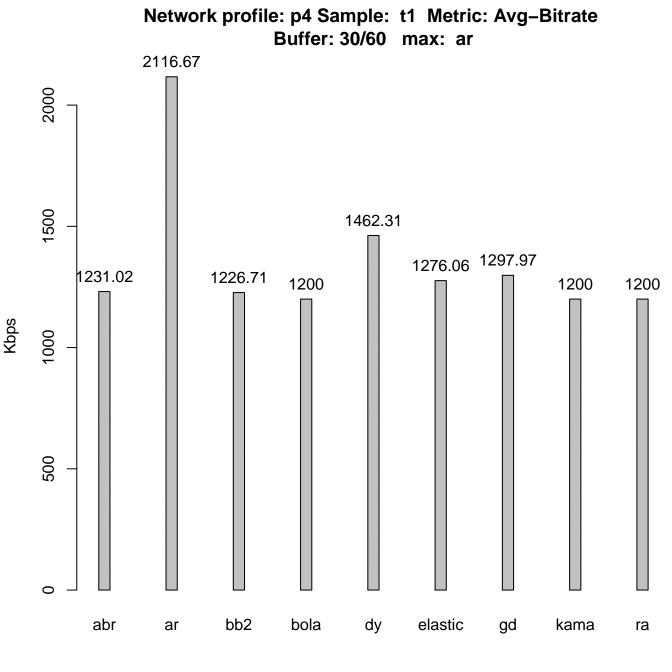


## Network profile: p3 Sample: t7 Metric: Avg-Bitrate Buffer: 30/60 max: bb2 1822.08



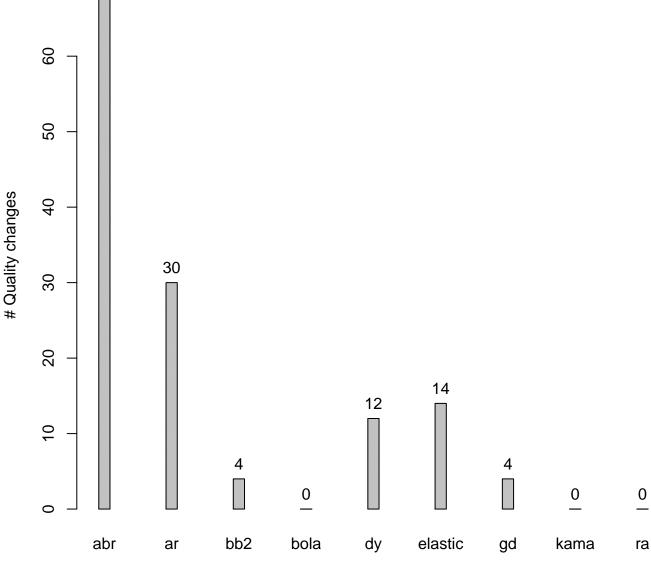
**Network profile: p3 Sample: t7 Metric: Inefficiency** Buffer: 30/60 min: elastic 0.456624 0.43431 0.37657  $0.324779 \ 0.31979$ 0.3112 0.299792 0.300098 0.271797 Inefficiency 0.1 elastic abr bb2 bola dy kama ar gd ra





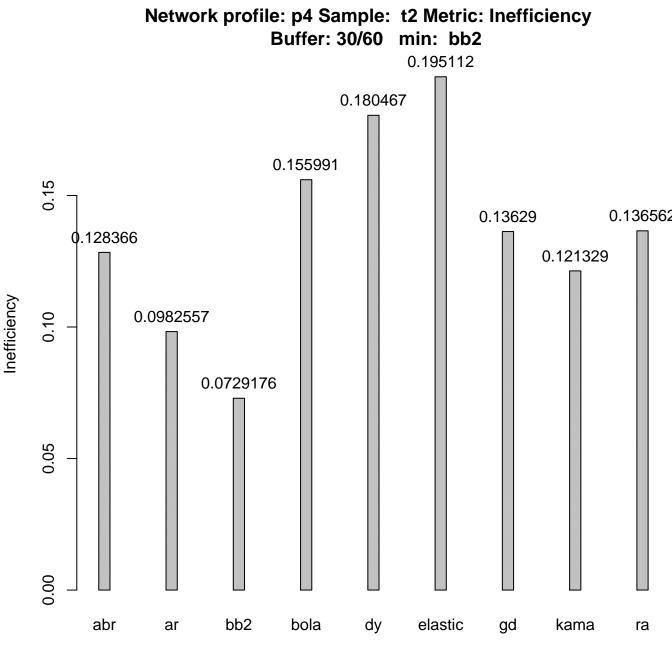
Network profile: p4 Sample: t1 Metric: Inefficiency Buffer: 30/60 min: elastic 0.153777<sub>0.151035</sub> 0.14817<sub>0.146151</sub> 0.153013<sup>0.154346</sup> 0.15173 0.152167 0.15 0.124738 Inefficiency 0.05 elastic abr bb2 bola dy kama ar gd ra

Network profile: p4 Sample: t1 Metric: # quality change Buffer: 30/60 min: bola

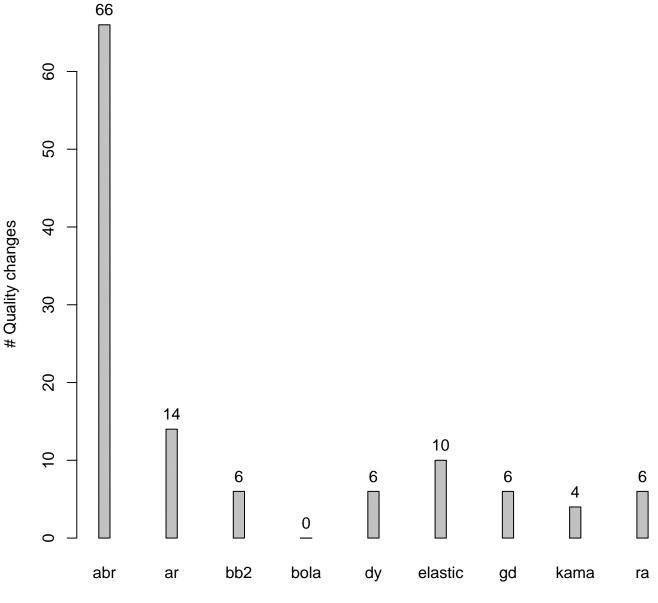


Buffer: 30/60 max: gd 3084.27 3000 2823.7 2683.12 2500 2406.16 2000 1907.87 1816.77 1762.94 1677.5 1622 1500 1000 500 bb2 bola elastic abr dy kama ar gd ra

Network profile: p4 Sample: t2 Metric: Avg-Bitrate

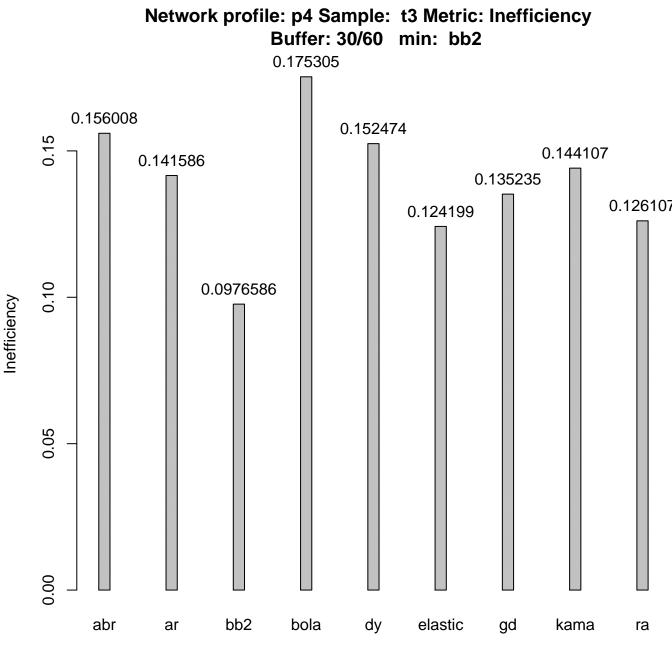


Network profile: p4 Sample: t2 Metric: # quality change Buffer: 30/60 min: bola

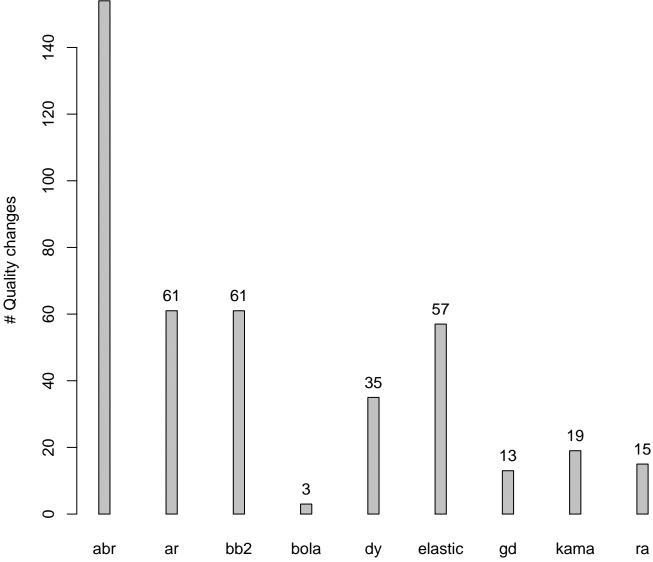


**Buffer: 30/60** max: ar 2100.46 2000 1925.91 1845.14 1728.79 1698.96 1648.79 1602.73 1591.07 1500 1301.59 500 bola elastic abr bb2 dy kama ar gd ra

Network profile: p4 Sample: t3 Metric: Avg-Bitrate



Network profile: p4 Sample: t3 Metric: # quality change Buffer: 30/60 min: bola 154 140

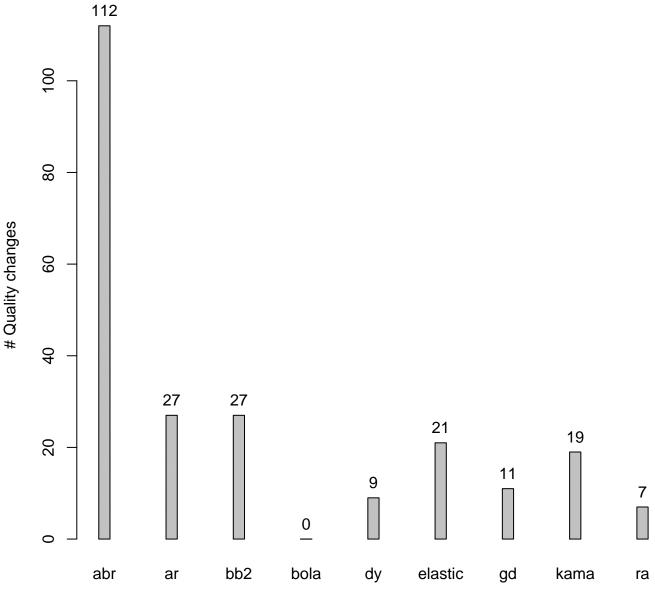


**Buffer: 30/60** max: ar 1910.61 1717.61 1699.77 1500 1461.76 1444.01 1411.04 1391.66 1221.85 1143 1000 500 bb2 bola elastic abr dy gd kama ar ra

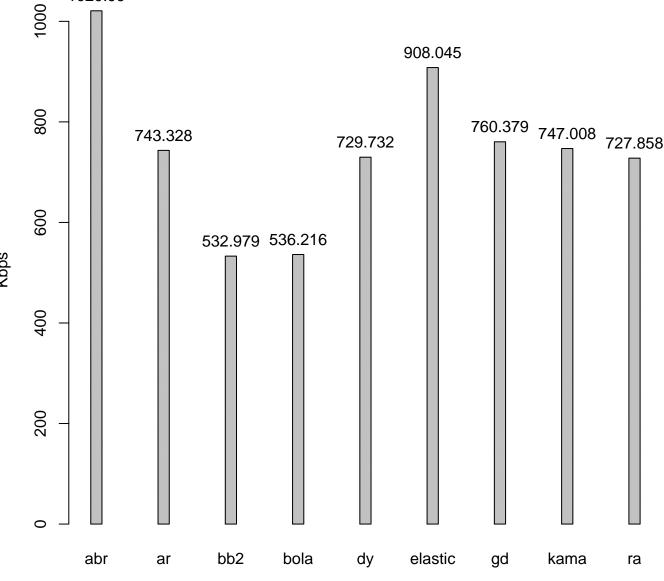
Network profile: p4 Sample: t4 Metric: Avg-Bitrate

**Network profile: p4 Sample: t4 Metric: Inefficiency** Buffer: 30/60 min: bb2 0.160361 <u>\$</u> 0.1426890.143953 0.14326 0.139783 0.118908 0.103944 0.0967904 0.0939306 Inefficiency 0.05 elastic abr bb2 bola dy kama ar gd ra

Network profile: p4 Sample: t4 Metric: # quality change Buffer: 30/60 min: bola



Network profile: p4 Sample: t5 Metric: Avg-Bitrate
Buffer: 30/60 max: abr



Network profile: p4 Sample: t5 Metric: Inefficiency Buffer: 30/60 min: elastic 0.436074 0.416687 0.4 0.341427 **0.338769** 0.330172 0.3132280.31635 0.279672 0.271009 Inefficiency elastic abr bb2 bola dy kama ar gd ra

Network profile: p4 Sample: t5 Metric: # quality change Buffer: 30/60 min: bb2 102 80 # Quality changes 9 4 30 20 12 11 8 8 8 5 5

abr

ar

bb2

bola

dy

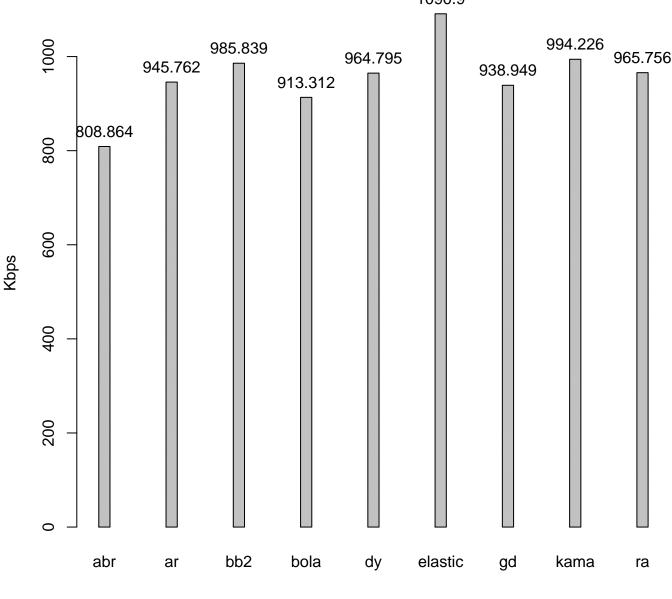
elastic

gd

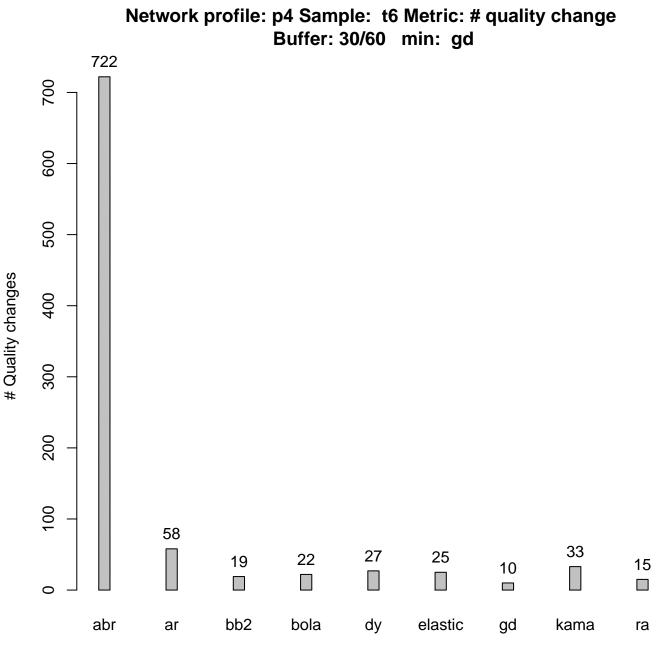
kama

ra

Network profile: p4 Sample: t6 Metric: Avg-Bitrate Buffer: 30/60 max: elastic 1090.9

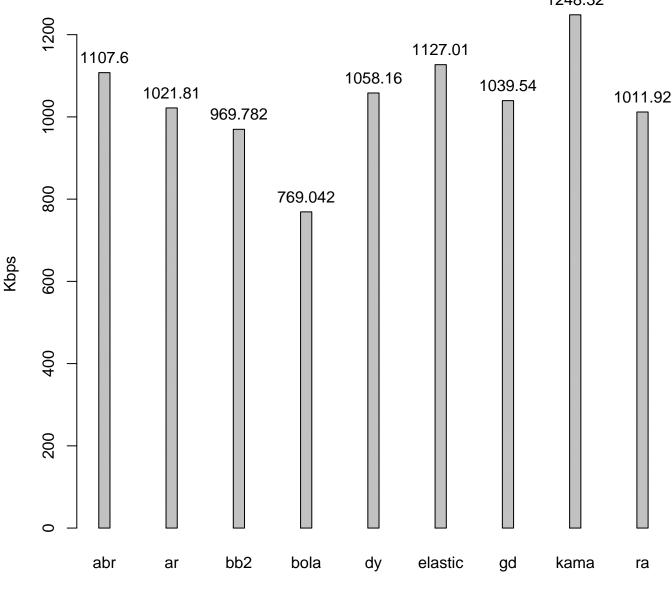


**Network profile: p4 Sample: t6 Metric: Inefficiency** Buffer: 30/60 min: gd 0.355408 0.335271 0.30 0.289266 0.286149 0.274499 0.261352 0.251458 0.25 0.241792 0.242033 0.20 Inefficiency 0.15 0.10 0.05 elastic abr bb2 bola dy kama ar gd ra

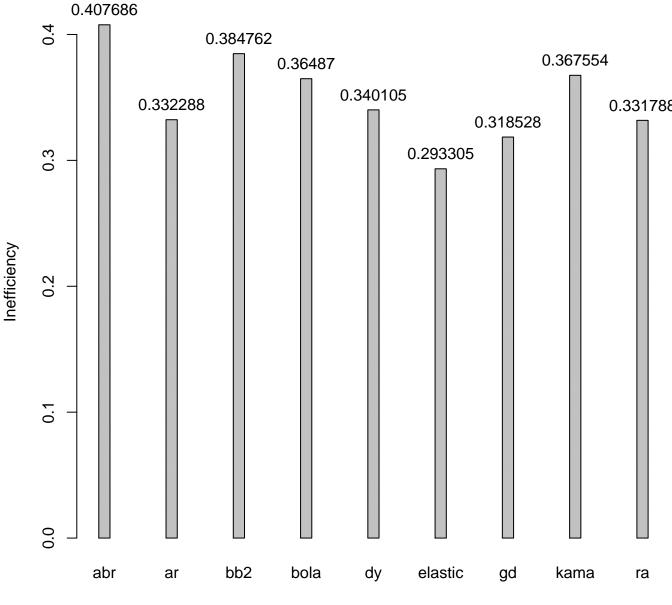


Network profile: p4 Sample: t7 Metric: Avg-Bitrate
Buffer: 30/60 max: kama

1248.32



Network profile: p4 Sample: t7 Metric: Inefficiency Buffer: 30/60 min: elastic



Network profile: p4 Sample: t7 Metric: # quality change Buffer: 30/60 min: bola

