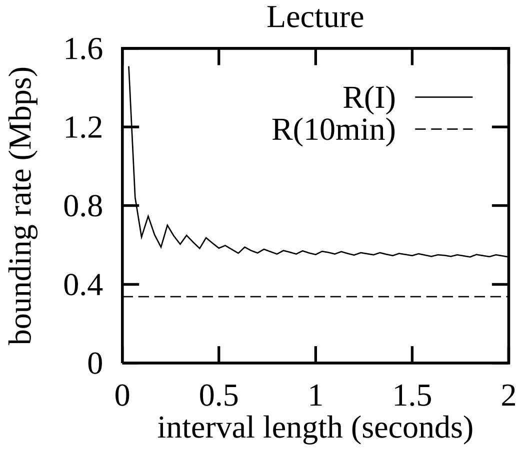
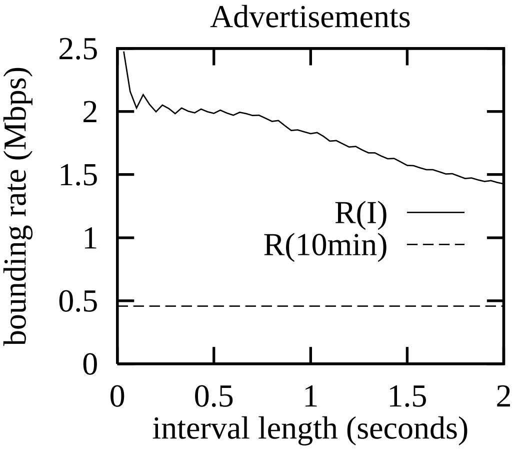
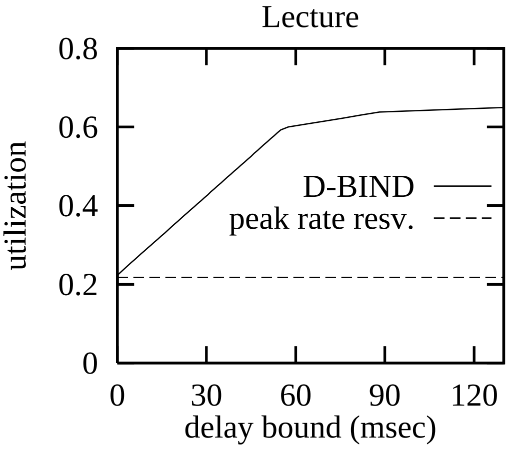
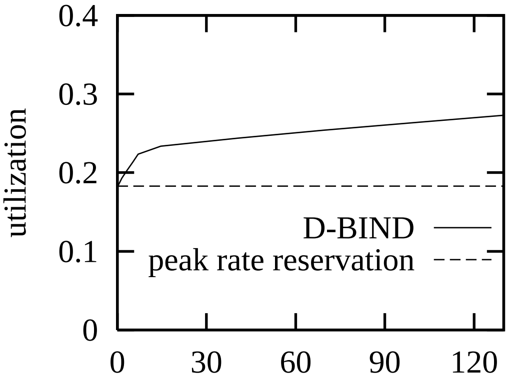
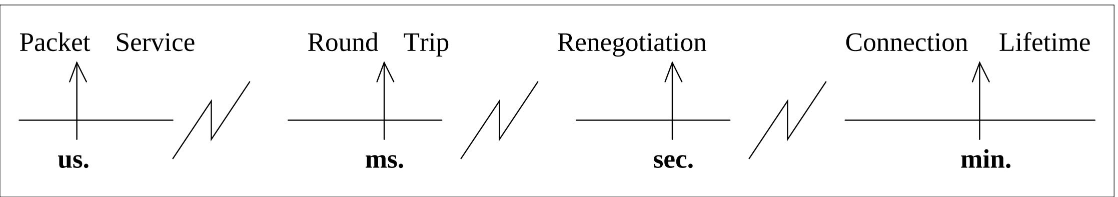

Lecture
bounding rate (Mbps)
1.6
1.2
0.8
0.4
0
0
0.5
1
1.5
2
interval length (seconds)
R(I)
R(10min)

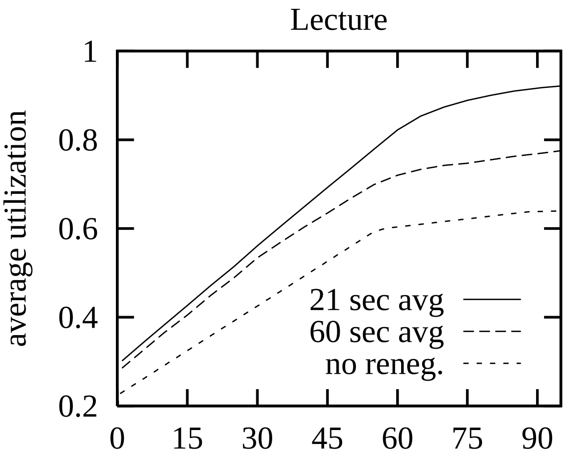

Advertisements
bounding rate (Mbps)
2.5
2
1.5
1
0.5
0
0
0.5
1
1.5
2
interval length (seconds)
R(I)
R(10min)

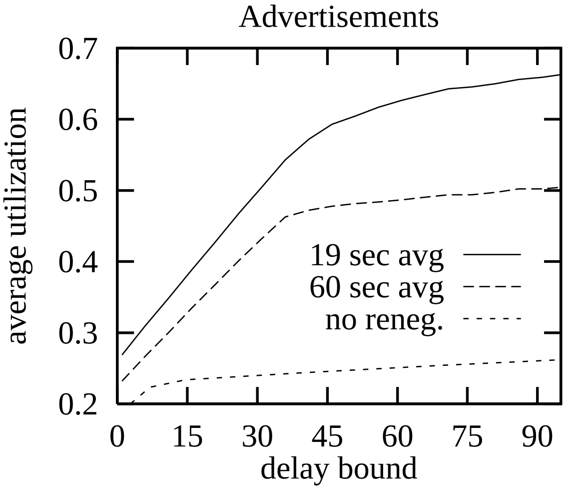

Lecture
0.8
0.6
0.4
0.2
0
utilization
D-BIND
peak rate resv.
0
30
60
90
120
delay bound (msec)

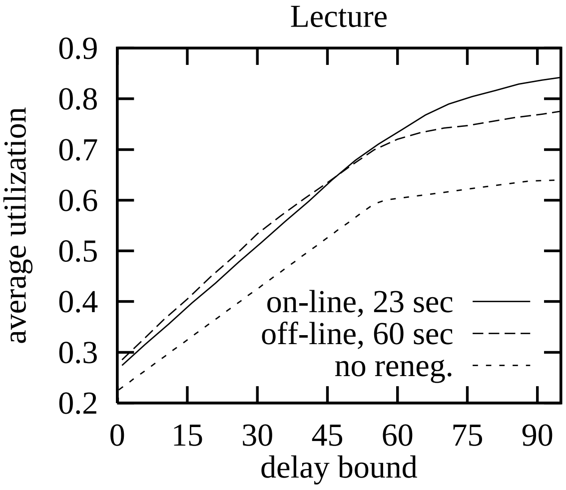

Advertisements
utilization
0.4
0.3
0.2
0.1
0
0
30
60
90
120
delay bound (msec)
D-BIND
peak rate reservation

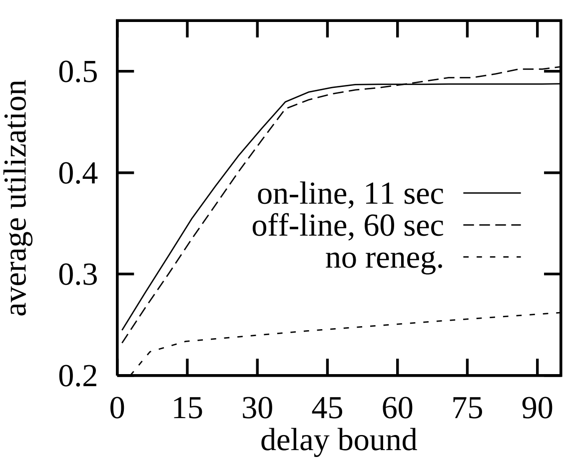

Packet Service
Round Trip
Renegotiation
Connection Lifetime
us.
ms.
sec.
min.

	traffic known in advance	traffic unknown in advance
not delay-sensitive	video playback	live video recording
delay-sensitive	interactive video browsing	video conferencing


Lecture
average utilization
1
0.8
0.6
0.4
0.2
0
15
30
45
60
75
90
delay bound
21 sec avg
60 sec avg
no reneg.


Advertisements
average utilization
0.7
0.6
0.5
0.4
0.3
0.2
0
15
30
45
60
75
90
delay bound
19 sec avg
60 sec avg
no reneg.


Lecture
average utilization
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0
15
30
45
60
75
90
delay bound
on-line, 23 sec
off-line, 60 sec
no reneg.


Advertisements
average utilization
0.2
0.3
0.4
0.5
0
15
30
45
60
75
90
delay bound
on-line, 11 sec
off-line, 60 sec
no reneg.