Chapter 1

SP Results

1.1 Backlog

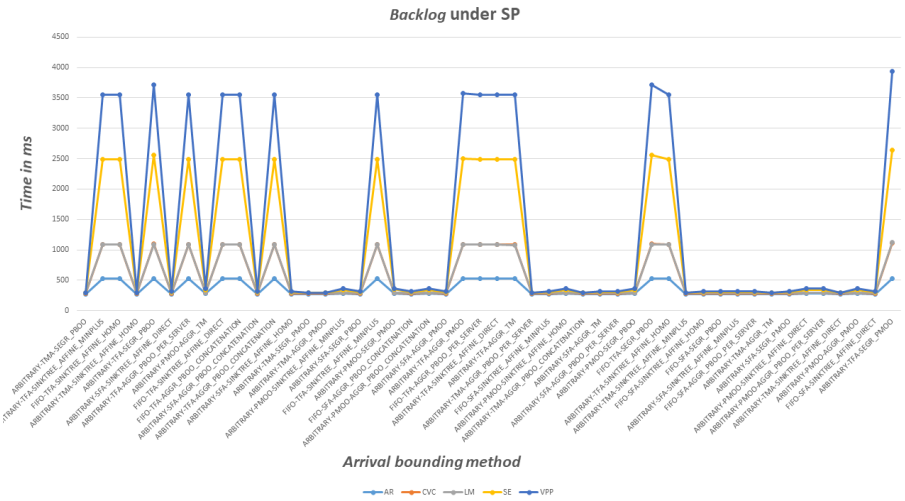

Figure 1.1: SP BACKLOG

1.2 MI SOCP Delays in ms

'SE': 208.34677499826876, 'LM': 208.35314999826872, 'VPP': 203.34549999826874, 'CVC': 224.3803999980214, 'AR': 88.14294999950535

1.3 NC Calculation UNDER SP

1. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	85.00, 73.37, 57.68, 47.13	85.00
AR	61.76	61.76
LM	98.62, 105.33, 101.26	105.33
SE	51.63, 108.30, 128.70, 142.51, 119.28	142.51
VPP	83.32, 83.32, 162.34, 156.46	162.34

Table 1.1: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR PBOO PER SERVER

2. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	85.00, 73.37, 57.68, 47.13	85.00
AR	61.76	61.76
LM	98.62, 105.33, 101.26	105.33
SE	51.63, 108.30, 128.70, 142.51, 119.28	142.51
VPP	83.32, 83.32, 162.34, 156.46	162.34

Table 1.2: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR PBOO CONCATENATION

3. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR PMOO

4. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	85.10, 73.40, 57.78, 47.15	85.10
AR	61.92	61.92
LM	99.19, 105.89, 101.75	105.89
SE	51.73, 108.53, 128.93, 142.85, 119.51	142.85
VPP	83.63, 83.63, 162.97, 157.07	162.97

Table 1.3: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	84.97, 73.35, 57.65, 47.11	84.97
AR	61.76	61.76
LM	98.59, 105.29, 101.23	105.29
SE	51.56, 108.21, 128.61, 142.32, 119.19	142.32
VPP	83.20, 83.20, 162.16, 156.26	162.16

Table 1.4: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR TM

5. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	85.13, 73.47, 57.79, 47.21	85.13
AR	61.76	61.76
LM	98.86, 105.58, 101.52	105.58
SE	52.39, 109.53, 129.93, 143.83, 120.66	143.83
VPP	85.66, 85.66, 165.59, 159.93	165.59

Table 1.5: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SEGR PBOO

6. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SEGR PMOO

7. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	85.46, 73.65, 58.07, 47.33	85.46
AR	61.92	61.92
LM	100.24, 107.04, 102.87	107.04
SE	53.24, 111.10, 131.50, 146.01, 122.30	146.01
VPP	89.10, 89.10, 170.70, 165.26	170.70

Table 1.6: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SEGR PMOO

Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	85.00, 73.37, 57.68, 47.13	85.00
AR	61.76	61.76
LM	98.62, 105.33, 101.26	105.33
SE	51.63, 108.30, 128.70, 142.51, 119.28	142.51
VPP	83.32, 83.32, 162.34, 156.46	162.34

Table 1.7: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SINKTREE AFFINE MINPLUS

8. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	85.00, 73.37, 57.68, 47.13	85.00
AR	61.76	61.76
LM	98.62, 105.33, 101.26	105.33
SE	51.63, 108.30, 128.70, 142.51, 119.28	142.51
VPP	83.32, 83.32, 162.34, 156.46	162.34

Table 1.8: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SINKTREE AFFINE DIRECT

9. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA

Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	85.00, 73.37, 57.68, 47.13	85.00
AR	61.76	61.76
LM	98.62, 105.33, 101.26	105.33
SE	51.63, 108.30, 128.70, 142.51, 119.28	142.51
VPP	83.32, 83.32, 162.34, 156.46	162.34

Table 1.9: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SINKTREE AFFINE HOMO

10. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	68.58, 55.84, 49.54, 41.71	68.58
AR	48.53	48.53
LM	77.54, 83.97, 81.33	83.97
SE	48.75, 95.58, 108.00, 121.05, 101.21	121.05
VPP	77.51, 77.51, 137.82, 137.77	137.82

Table 1.10: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR PBOO PER SERVER

11. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

12. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PMOO

13. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	68.58, 55.84, 49.54, 41.71	68.58
AR	48.53	48.53
LM	77.54, 83.97, 81.33	83.97
SE	48.75, 95.58, 108.00, 121.05, 101.21	121.05
VPP	77.51, 77.51, 137.82, 137.77	137.82

Table 1.11: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	68.58, 55.87, 49.63, 41.73	68.58
AR	48.53	48.53
LM	78.09, 84.16, 81.81	84.16
SE	48.85, 95.66, 108.23, 121.77, 101.47	121.77
VPP	77.83, 77.83, 138.19, 138.51	138.51

Table 1.12: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR PMOO

Arrival Bounding Method: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	68.58, 55.83, 49.51, 41.69	68.58
AR	48.53	48.53
LM	77.51, 83.97, 81.30	83.97
SE	48.68, 95.49, 107.91, 120.99, 101.15	120.99
VPP	77.39, 77.39, 137.52, 137.58	137.58

Table 1.13: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR TM

14. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SEGR PBOO

15. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SEGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	68.66, 55.92, 49.60, 41.78	68.66
AR	48.53	48.53
LM	77.71, 84.15, 81.52	84.15
SE	49.50, 96.63, 109.05, 122.07, 102.25	122.07
VPP	79.75, 79.75, 140.62, 140.60	140.62

Table 1.14: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	68.77, 56.10, 49.81, 41.86	68.77
AR	48.53	48.53
LM	78.89, 84.99, 82.52	84.99
SE	50.35, 97.58, 110.16, 123.63, 104.14	123.63
VPP	82.91, 82.91, 144.94, 145.04	145.04

Table 1.15: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SEGR PMOO

16. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	68.58, 55.84, 49.54, 41.71	68.58
AR	48.53	48.53
LM	77.54, 83.97, 81.33	83.97
SE	48.75, 95.58, 108.00, 121.05, 101.21	121.05
VPP	77.51, 77.51, 137.82, 137.77	137.82

Table 1.16: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SINKTREE AFFINE MINPLUS

17. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

18. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	68.58, 55.84, 49.54, 41.71	68.58
AR	48.53	48.53
LM	77.54, 83.97, 81.33	83.97
SE	48.75, 95.58, 108.00, 121.05, 101.21	121.05
VPP	77.51, 77.51, 137.82, 137.77	137.82

Table 1.17: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SINKTREE AFFINE DIRECT

Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	68.58, 55.84, 49.54, 41.71	68.58
AR	48.53	48.53
LM	77.54, 83.97, 81.33	83.97
SE	48.75, 95.58, 108.00, 121.05, 101.21	121.05
VPP	77.51, 77.51, 137.82, 137.77	137.82

Table 1.18: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SINKTREE AFFINE HOMO

19. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	94.18, 51.92, 68.50, 63.50	94.18
AR	56.36	56.36
LM	74.85, 97.01, 84.46	97.01
SE	114.70, 164.18, 168.70, 189.60, 66.94	189.60
VPP	157.14, 157.14, 219.04, 209.80	219.04

Table 1.19: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR PBOO PER SERVER

20. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO

Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	94.18, 51.92, 68.50, 63.50	94.18
AR	56.36	56.36
LM	74.85, 97.01, 84.46	97.01
SE	114.70, 164.18, 168.70, 189.60, 66.94	189.60
VPP	157.14, 157.14, 219.04, 209.80	219.04

Table 1.20: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR PBOO CONCATENATION

21. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: AGGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	94.15, 51.96, 68.61, 63.61	94.15
AR	56.36	56.36
LM	75.33, 97.18, 84.77	97.18
SE	115.09, 164.76, 169.45, 190.04, 67.10	190.04
VPP	157.83, 157.83, 219.73, 210.86	219.73

Table 1.21: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR PMOO

22. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: AGGR TM

23. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SEGR PBOO

24. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	94.15, 51.92, 68.44, 63.45	94.15
AR	56.36	56.36
LM	74.82, 97.01, 84.43	97.01
SE	114.43, 163.79, 168.32, 189.54, 66.88	189.54
VPP	156.83, 156.83, 218.56, 209.55	218.56

Table 1.22: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	94.29, 51.98, 68.61, 63.72	94.29
AR	56.36	56.36
LM	74.96, 97.13, 84.58	97.13
SE	117.60, 165.24, 169.77, 191.69, 67.18	191.69
VPP	161.36, 161.36, 221.66, 211.88	221.66

Table 1.23: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SEGR PBOO

Arrival Bounding Method: SEGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	94.43, 52.07, 68.88, 64.05	94.43
AR	56.36	56.36
LM	75.90, 97.75, 85.23	97.75
SE	120.84, 167.82, 172.51, 193.99, 67.79	193.99
VPP	167.59, 167.59, 225.58, 215.19	225.58

Table 1.24: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SEGR PMOO

25. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

26. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	94.18, 51.92, 68.50, 63.50	94.18
AR	56.36	56.36
LM	74.85, 97.01, 84.46	97.01
SE	114.70, 164.18, 168.70, 189.60, 66.94	189.60
VPP	157.14, 157.14, 219.04, 209.80	219.04

Table 1.25: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	94.18, 51.92, 68.50, 63.50	94.18
AR	56.36	56.36
LM	74.85, 97.01, 84.46	97.01
SE	114.70, 164.18, 168.70, 189.60, 66.94	189.60
VPP	157.14, 157.14, 219.04, 209.80	219.04

Table 1.26: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SINKTREE AFFINE DIRECT

27. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	94.18, 51.92, 68.50, 63.50	94.18
AR	56.36	56.36
LM	74.85, 97.01, 84.46	97.01
SE	114.70, 164.18, 168.70, 189.60, 66.94	189.60
VPP	157.14, 157.14, 219.04, 209.80	219.04

Table 1.27: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SINKTREE AFFINE HOMO

28. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	61.94, 51.87, 44.03, 38.95	61.94
AR	48.53	48.53
LM	74.85, 79.99, 78.74	79.99
SE	48.75, 74.75, 87.34, 92.78, 66.94	92.78
VPP	60.56, 60.56, 99.24, 83.00	99.24

Table 1.28: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR PBOO PER SERVER

29. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	61.94, 51.87, 44.03, 38.95	61.94
AR	48.53	48.53
LM	74.85, 79.99, 78.74	79.99
SE	48.75, 74.75, 87.34, 92.78, 66.94	92.78
VPP	60.56, 60.56, 99.24, 83.00	99.24

Table 1.29: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR PBOO CONCATENATION

30. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	61.93, 51.90, 44.06, 38.98	61.93
AR	48.53	48.53
LM	75.33, 80.16, 79.22	80.16
SE	48.85, 74.90, 87.53, 92.90, 67.10	92.90
VPP	60.74, 60.74, 99.42, 83.28	99.42

Table 1.30: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR PMOO

31. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	61.93, 51.86, 44.01, 38.94	61.93
AR	48.53	48.53
LM	74.82, 79.99, 78.71	79.99
SE	48.68, 74.65, 87.24, 92.77, 66.88	92.77
VPP	60.47, 60.47, 99.11, 82.93	99.11

Table 1.31: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR TM

32. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	61.97, 51.92, 44.06, 39.01	61.97
AR	48.53	48.53
LM	74.96, 80.11, 78.92	80.11
SE	49.50, 75.02, 87.61, 93.33, 67.18	93.33
VPP	61.68, 61.68, 99.98, 83.55	99.98

Table 1.32: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SEGR PBOO

33. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SEGR PMOO

34. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	62.00, 52.01, 44.13, 39.09	62.00
AR	48.53	48.53
LM	75.90, 80.73, 79.92	80.73
SE	50.35, 75.69, 88.33, 93.93, 67.79	93.93
VPP	63.34, 63.34, 101.00, 84.44	101.00

Table 1.33: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SEGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	61.94, 51.87, 44.03, 38.95	61.94
AR	48.53	48.53
LM	74.85, 79.99, 78.74	79.99
SE	48.75, 74.75, 87.34, 92.78, 66.94	92.78
VPP	60.56, 60.56, 99.24, 83.00	99.24

Table 1.34: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SINKTREE AFFINE MINPLUS

35. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	61.94, 51.87, 44.03, 38.95	61.94
AR	48.53	48.53
LM	74.85, 79.99, 78.74	79.99
SE	48.75, 74.75, 87.34, 92.78, 66.94	92.78
VPP	60.56, 60.56, 99.24, 83.00	99.24

Table 1.35: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SINKTREE AFFINE DIRECT

36. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SINKTREE AFFINE HOMO

37. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	61.94, 51.87, 44.03, 38.95	61.94
AR	48.53	48.53
LM	74.85, 79.99, 78.74	79.99
SE	48.75, 74.75, 87.34, 92.78, 66.94	92.78
VPP	60.56, 60.56, 99.24, 83.00	99.24

Table 1.36: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SINKTREE AFFINE HOMO

Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	84.32, 72.70, 57.13, 46.69	84.32
AR	61.66	61.66
LM	98.62, 105.33, 101.26	105.33
SE	51.63, 108.30, 128.70, 142.51, 119.28	142.51
VPP	83.32, 83.32, 162.34, 156.46	162.34

Table 1.37: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: AGGR PBOO PER SERVER

38. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	84.32, 72.70, 57.13, 46.69	84.32
AR	61.66	61.66
LM	98.62, 105.33, 101.26	105.33
SE	51.63, 108.30, 128.70, 142.51, 119.28	142.51
VPP	83.32, 83.32, 162.34, 156.46	162.34

Table 1.38: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: AGGR PBOO CONCATENATION

39. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA

Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	84.44, 72.79, 57.24, 46.77	84.44
AR	61.66	61.66
LM	98.85, 105.57, 101.52	105.57
SE	52.35, 109.48, 129.88, 143.77, 120.61	143.77
VPP	85.54, 85.54, 165.43, 159.77	165.43

Table 1.39: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SEGR PBOO

40. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	84.32, 72.70, 57.13, 46.69	84.32
AR	61.66	61.66
LM	98.62, 105.33, 101.26	105.33
SE	51.63, 108.30, 128.70, 142.51, 119.28	142.51
VPP	83.32, 83.32, 162.34, 156.46	162.34

Table 1.40: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SINKTREE AFFINE MINPLUS

41. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

42. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: SINKTREE AFFINE HOMO

43. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	84.32, 72.70, 57.13, 46.69	84.32
AR	61.66	61.66
LM	98.62, 105.33, 101.26	105.33
SE	51.63, 108.30, 128.70, 142.51, 119.28	142.51
VPP	83.32, 83.32, 162.34, 156.46	162.34

Table 1.41: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	84.32, 72.70, 57.13, 46.69	84.32
AR	61.66	61.66
LM	98.62, 105.33, 101.26	105.33
SE	51.63, 108.30, 128.70, 142.51, 119.28	142.51
VPP	83.32, 83.32, 162.34, 156.46	162.34

Table 1.42: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SINKTREE AFFINE HOMO

Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	68.25, 55.51, 49.25, 41.46	68.25
AR	48.49	48.49
LM	77.54, 83.97, 81.33	83.97
SE	48.75, 95.58, 108.00, 121.05, 101.21	121.05
VPP	77.51, 77.51, 137.82, 137.77	137.82

Table 1.43: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: AGGR PBOO PER SERVER

44. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

45. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	68.25, 55.51, 49.25, 41.46	68.25
AR	48.49	48.49
LM	77.54, 83.97, 81.33	83.97
SE	48.75, 95.58, 108.00, 121.05, 101.21	121.05
VPP	77.51, 77.51, 137.82, 137.77	137.82

Table 1.44: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	68.33, 55.58, 49.32, 41.53	68.33
AR	48.49	48.49
LM	77.71, 84.14, 81.52	84.14
SE	49.47, 96.58, 109.01, 122.03, 102.21	122.03
VPP	79.63, 79.63, 140.49, 140.47	140.49

Table 1.45: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SEGR PBOO

46. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	68.25, 55.51, 49.25, 41.46	68.25
AR	48.49	48.49
LM	77.54, 83.97, 81.33	83.97
SE	48.75, 95.58, 108.00, 121.05, 101.21	121.05
VPP	77.51, 77.51, 137.82, 137.77	137.82

Table 1.46: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SINKTREE AFFINE MINPLUS

47. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

48. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	68.25, 55.51, 49.25, 41.46	68.25
AR	48.49	48.49
LM	77.54, 83.97, 81.33	83.97
SE	48.75, 95.58, 108.00, 121.05, 101.21	121.05
VPP	77.51, 77.51, 137.82, 137.77	137.82

Table 1.47: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SINKTREE AFFINE DIRECT

Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
CVC	68.25, 55.51, 49.25, 41.46	68.25
AR	48.49	48.49
LM	77.54, 83.97, 81.33	83.97
SE	48.75, 95.58, 108.00, 121.05, 101.21	121.05
VPP	77.51, 77.51, 137.82, 137.77	137.82

Table 1.48: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SINKTREE AFFINE HOMO

Chapter 2

DRR Results

2.1 Backlog

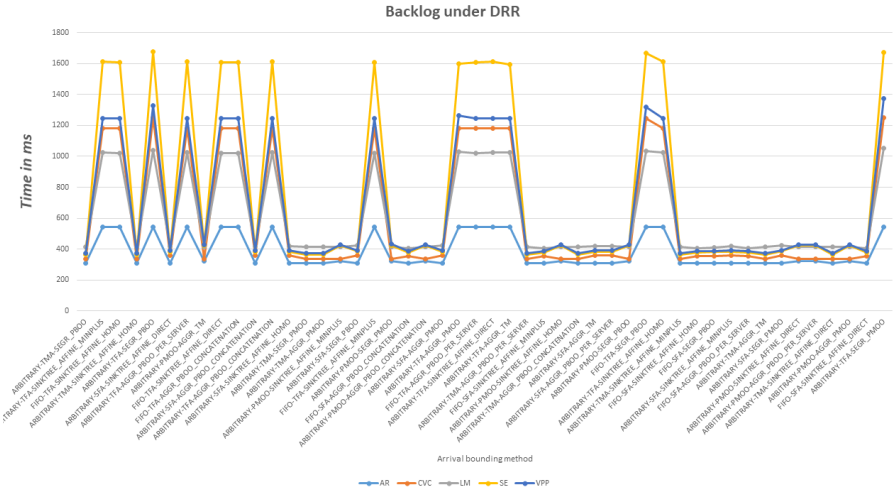

Figure 2.1: DRR BACKLOG

2.2 MISOCP Delay in ms

'SE': 200.81999999999996, 'LM': 110.66, 'VPP': 175.77999999999997, 'CVC': 195.81999999999996, 'AR': 85.62

1. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA

Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	393.59, 455.08, 276.69	455.08
CVC	209.85, 268.56, 130.49, 130.49	268.56
AR	159.31	159.31
SE	90.62, 252.11, 316.59, 332.28, 310.63	332.28
VPP	169.13, 169.13, 365.69, 251.02	365.69

Table 2.1: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR PBOO PER SERVER

2. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	393.59, 455.08, 276.69	455.08
CVC	209.85, 268.56, 130.49, 130.49	268.56
AR	159.31	159.31
SE	90.62, 252.11, 316.59, 332.28, 310.63	332.28
VPP	169.13, 169.13, 365.69, 251.02	365.69

Table 2.2: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR PBOO CONCATENATION

3. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR PMOO

4. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR TM

5. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	394.49, 455.98, 277.60	455.98
CVC	209.85, 268.56, 130.49, 130.49	268.56
AR	159.47	159.47
SE	90.14, 250.87, 315.37, 330.95, 308.86	330.95
VPP	170.16, 170.16, 367.47, 252.84	367.47

Table 2.3: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	393.59, 455.08, 276.69	455.08
CVC	209.85, 268.56, 130.49, 130.49	268.56
AR	159.31	159.31
SE	89.96, 250.49, 314.96, 330.53, 308.63	330.53
VPP	169.13, 169.13, 365.69, 251.02	365.69

Table 2.4: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR TM

Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	396.42, 457.91, 278.79	457.91
CVC	212.61, 271.33, 133.12, 133.12	271.33
AR	159.31	159.31
SE	92.71, 255.56, 320.03, 336.50, 313.76	336.50
VPP	172.45, 172.45, 369.74, 254.48	369.74

Table 2.5: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SEGR PBOO

6. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SEGR PMOO

7. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	399.40, 460.89, 281.08	460.89
CVC	212.64, 271.35, 132.96, 132.96	271.35
AR	159.47	159.47
SE	92.60, 256.78, 321.28, 337.47, 313.07	337.47
VPP	174.95, 174.95, 373.64, 258.41	373.64

Table 2.6: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SEGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	393.59, 455.08, 276.69	455.08
CVC	209.85, 268.56, 130.49, 130.49	268.56
AR	159.31	159.31
SE	90.62, 252.11, 316.59, 332.28, 310.63	332.28
VPP	169.13, 169.13, 365.69, 251.02	365.69

Table 2.7: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SINKTREE AFFINE MINPLUS

8. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	393.59, 455.08, 276.69	455.08
CVC	209.85, 268.56, 130.49, 130.49	268.56
AR	159.31	159.31
SE	90.62, 252.11, 316.59, 332.28, 310.63	332.28
VPP	169.13, 169.13, 365.69, 251.02	365.69

Table 2.8: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SINKTREE AFFINE DIRECT

9. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SINKTREE AFFINE HOMO

10. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	393.59, 455.08, 276.69	455.08
CVC	209.85, 268.56, 130.49, 130.49	268.56
AR	159.31	159.31
SE	90.62, 252.11, 316.59, 332.28, 310.63	332.28
VPP	169.13, 169.13, 365.69, 251.02	365.69

Table 2.9: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SINKTREE AFFINE HOMO

Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	317.78, 360.53, 240.03	360.53
CVC	169.08, 209.58, 112.08, 112.08	209.58
AR	138.41	138.41
SE	81.16, 205.58, 268.74, 263.58, 243.23	268.74
VPP	141.61, 141.61, 301.06, 199.86	301.06

Table 2.10: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR PBOO PER SERVER

11. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	317.78, 360.53, 240.03	360.53
CVC	169.08, 209.58, 112.08, 112.08	209.58
AR	138.41	138.41
SE	81.16, 205.58, 268.74, 263.58, 243.23	268.74
VPP	141.61, 141.61, 301.06, 199.86	301.06

Table 2.11: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR PBOO CONCATENATION

12. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA

Arrival Bounding Method: AGGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	317.59, 361.41, 240.70	361.41
CVC	169.08, 209.58, 112.08, 112.08	209.58
AR	138.41	138.41
SE	80.69, 204.14, 267.54, 263.17, 242.88	267.54
VPP	142.63, 142.63, 301.20, 201.47	301.20

Table 2.12: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR PMOO

13. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	317.41, 360.53, 240.03	360.53
CVC	169.08, 209.58, 112.08, 112.08	209.58
AR	138.41	138.41
SE	80.51, 204.00, 267.15, 262.93, 242.67	267.15
VPP	141.61, 141.61, 301.06, 199.86	301.06

Table 2.13: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR TM

14. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SEGR PBOO

15. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SEGR PMOO

16. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	319.38, 361.92, 241.99	361.92
CVC	170.86, 211.41, 114.22, 114.22	211.41
AR	138.41	138.41
SE	83.21, 207.93, 270.96, 266.23, 245.89	270.96
VPP	144.15, 144.15, 303.85, 202.24	303.85

Table 2.14: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	321.49, 362.80, 243.93	362.80
CVC	170.90, 211.64, 113.95, 113.95	211.64
AR	138.41	138.41
SE	83.11, 209.23, 269.49, 268.18, 246.62	269.49
VPP	146.57, 146.57, 304.04, 205.95	304.04

Table 2.15: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SEGR PMOO

Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	317.78, 360.53, 240.03	360.53
CVC	169.08, 209.58, 112.08, 112.08	209.58
AR	138.41	138.41
SE	81.16, 205.58, 268.74, 263.58, 243.23	268.74
VPP	141.61, 141.61, 301.06, 199.86	301.06

Table 2.16: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SINKTREE AFFINE MINPLUS

17. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

18. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	317.78, 360.53, 240.03	360.53
CVC	169.08, 209.58, 112.08, 112.08	209.58
AR	138.41	138.41
SE	81.16, 205.58, 268.74, 263.58, 243.23	268.74
VPP	141.61, 141.61, 301.06, 199.86	301.06

Table 2.17: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	317.78, 360.53, 240.03	360.53
CVC	169.08, 209.58, 112.08, 112.08	209.58
AR	138.41	138.41
SE	81.16, 205.58, 268.74, 263.58, 243.23	268.74
VPP	141.61, 141.61, 301.06, 199.86	301.06

Table 2.18: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SINKTREE AFFINE HOMO

19. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	341.97, 344.98, 268.65	344.98
CVC	135.97, 170.97, 92.25, 92.25	170.97
AR	162.99	162.99
SE	91.96, 173.64, 364.46, 219.62, 223.23	364.46
VPP	112.32, 112.32, 375.70, 166.64	375.70

Table 2.19: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR PBOO PER SERVER

20. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: AGGR PBOO CONCATENATION

21. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	341.97, 344.98, 268.65	344.98
CVC	135.97, 170.97, 92.25, 92.25	170.97
AR	162.99	162.99
SE	91.96, 173.64, 364.46, 219.62, 223.23	364.46
VPP	112.32, 112.32, 375.70, 166.64	375.70

Table 2.20: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR PBOO CONCATENATION

Arrival Bounding Method: AGGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	342.15, 345.16, 269.31	345.16
CVC	135.97, 170.97, 92.25, 92.25	170.97
AR	162.99	162.99
SE	91.37, 172.57, 361.94, 219.07, 222.88	361.94
VPP	112.96, 112.96, 375.87, 167.23	375.87

Table 2.21: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR PMOO

22. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	341.97, 344.98, 268.65	344.98
CVC	135.97, 170.97, 92.25, 92.25	170.97
AR	162.99	162.99
SE	91.15, 172.51, 361.05, 218.83, 222.67	361.05
VPP	112.32, 112.32, 375.70, 166.64	375.70

Table 2.22: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR TM

23. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO

Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	341.97, 344.98, 270.61	344.98
CVC	135.97, 170.97, 92.79, 92.79	170.97
AR	162.99	162.99
SE	94.53, 173.81, 364.38, 219.60, 225.44	364.38
VPP	112.90, 112.90, 376.77, 166.97	376.77

Table 2.23: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SEGR PBOO

24. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SEGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	342.15, 345.16, 272.55	345.16
CVC	135.97, 170.97, 92.68, 92.68	170.97
AR	162.99	162.99
SE	94.40, 173.58, 361.98, 219.08, 226.10	361.98
VPP	114.01, 114.01, 377.28, 167.67	377.28

Table 2.24: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SEGR PMOO

25. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

26. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

27. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	341.97, 344.98, 268.65	344.98
CVC	135.97, 170.97, 92.25, 92.25	170.97
AR	162.99	162.99
SE	91.96, 173.64, 364.46, 219.62, 223.23	364.46
VPP	112.32, 112.32, 375.70, 166.64	375.70

Table 2.25: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	341.97, 344.98, 268.65	344.98
CVC	135.97, 170.97, 92.25, 92.25	170.97
AR	162.99	162.99
SE	91.96, 173.64, 364.46, 219.62, 223.23	364.46
VPP	112.32, 112.32, 375.70, 166.64	375.70

Table 2.26: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SINKTREE AFFINE DIRECT

Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	341.97, 344.98, 268.65	344.98
CVC	135.97, 170.97, 92.25, 92.25	170.97
AR	162.99	162.99
SE	91.96, 173.64, 364.46, 219.62, 223.23	364.46
VPP	112.32, 112.32, 375.70, 166.64	375.70

Table 2.27: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SINKTREE AFFINE HOMO

28. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR PBOO PER SERVER

29. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	307.66, 344.98, 240.03	344.98
CVC	128.43, 170.71, 84.52, 84.52	170.71
AR	138.41	138.41
SE	81.16, 160.78, 225.22, 204.26, 222.33	225.22
VPP	104.11, 104.11, 260.59, 156.09	260.59

Table 2.28: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	307.66, 344.98, 240.03	344.98
CVC	128.43, 170.71, 84.52, 84.52	170.71
AR	138.41	138.41
SE	81.16, 160.78, 225.22, 204.26, 222.33	225.22
VPP	104.11, 104.11, 260.59, 156.09	260.59

Table 2.29: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR PBOO CONCATENATION

30. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	307.54, 345.16, 240.70	345.16
CVC	128.43, 170.71, 84.52, 84.52	170.71
AR	138.41	138.41
SE	80.69, 159.92, 224.55, 203.82, 221.98	224.55
VPP	104.62, 104.62, 260.63, 156.56	260.63

Table 2.30: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR PMOO

31. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	307.36, 344.98, 240.03	344.98
CVC	128.43, 170.71, 84.52, 84.52	170.71
AR	138.41	138.41
SE	80.51, 159.87, 224.31, 203.63, 221.77	224.31
VPP	104.11, 104.11, 260.59, 156.09	260.59

Table 2.31: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR TM

32. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	308.55, 344.98, 241.99	344.98
CVC	128.43, 170.71, 84.95, 84.95	170.71
AR	138.41	138.41
SE	83.21, 160.91, 225.20, 204.25, 224.54	225.20
VPP	104.57, 104.57, 261.14, 156.35	261.14

Table 2.32: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SEGR PBOO

33. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SEGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	310.77, 345.16, 243.93	345.16
CVC	128.43, 170.71, 84.85, 84.85	170.71
AR	138.41	138.41
SE	83.11, 160.73, 224.56, 203.83, 225.19	225.19
VPP	105.44, 105.44, 261.27, 156.91	261.27

Table 2.33: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SEGR PMOO

34. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	307.66, 344.98, 240.03	344.98
CVC	128.43, 170.71, 84.52, 84.52	170.71
AR	138.41	138.41
SE	81.16, 160.78, 225.22, 204.26, 222.33	225.22
VPP	104.11, 104.11, 260.59, 156.09	260.59

Table 2.34: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SINKTREE AFFINE MINPLUS

35. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	307.66, 344.98, 240.03	344.98
CVC	128.43, 170.71, 84.52, 84.52	170.71
AR	138.41	138.41
SE	81.16, 160.78, 225.22, 204.26, 222.33	225.22
VPP	104.11, 104.11, 260.59, 156.09	260.59

Table 2.35: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SINKTREE AFFINE DIRECT

36. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SINKTREE AFFINE HOMO

37. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	307.66, 344.98, 240.03	344.98
CVC	128.43, 170.71, 84.52, 84.52	170.71
AR	138.41	138.41
SE	81.16, 160.78, 225.22, 204.26, 222.33	225.22
VPP	104.11, 104.11, 260.59, 156.09	260.59

Table 2.36: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	350.64, 393.46, 234.46	393.46
CVC	201.71, 259.36, 123.74, 123.74	259.36
AR	158.22	158.22
SE	85.15, 240.59, 305.06, 317.53, 298.04	317.53
VPP	160.86, 160.86, 337.68, 241.14	337.68

Table 2.37: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: AGGR PBOO PER SERVER

38. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	350.64, 393.46, 234.46	393.46
CVC	201.71, 259.36, 123.74, 123.74	259.36
AR	158.22	158.22
SE	85.15, 240.59, 305.06, 317.53, 298.04	317.53
VPP	160.86, 160.86, 337.68, 241.14	337.68

Table 2.38: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: AGGR PBOO CONCATENATION

39. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: SEGR PBOO

40. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	352.89, 395.71, 236.11	395.71
CVC	204.15, 261.80, 126.05, 126.05	261.80
AR	158.22	158.22
SE	86.94, 243.58, 308.05, 321.24, 300.79	321.24
VPP	163.78, 163.78, 341.22, 244.20	341.22

Table 2.39: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SEGR PBOO

Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	350.64, 393.46, 234.46	393.46
CVC	201.71, 259.36, 123.74, 123.74	259.36
AR	158.22	158.22
SE	85.15, 240.59, 305.06, 317.53, 298.04	317.53
VPP	160.86, 160.86, 337.68, 241.14	337.68

Table 2.40: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SINKTREE AFFINE MINPLUS

41. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	350.64, 393.46, 234.46	393.46
CVC	201.71, 259.36, 123.74, 123.74	259.36
AR	158.22	158.22
SE	85.15, 240.59, 305.06, 317.53, 298.04	317.53
VPP	160.86, 160.86, 337.68, 241.14	337.68

Table 2.41: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SINKTREE AFFINE DIRECT

42. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA

Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	350.64, 393.46, 234.46	393.46
CVC	201.71, 259.36, 123.74, 123.74	259.36
AR	158.22	158.22
SE	85.15, 240.59, 305.06, 317.53, 298.04	317.53
VPP	160.86, 160.86, 337.68, 241.14	337.68

Table 2.42: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SINKTREE AFFINE HOMO

43. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	296.43, 333.42, 218.53	333.42
CVC	164.40, 204.61, 107.86, 107.86	204.61
AR	138.01	138.01
SE	77.34, 198.34, 261.58, 255.32, 236.17	261.58
VPP	136.62, 136.62, 289.40, 194.26	289.40

Table 2.43: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: AGGR PBOO PER SERVER

44. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

45. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: SEGR PBOO

46. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	296.43, 333.42, 218.53	333.42
CVC	164.40, 204.61, 107.86, 107.86	204.61
AR	138.01	138.01
SE	77.34, 198.34, 261.58, 255.32, 236.17	261.58
VPP	136.62, 136.62, 289.40, 194.26	289.40

Table 2.44: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	297.77, 334.59, 220.18	334.59
CVC	165.99, 206.24, 109.78, 109.78	206.24
AR	138.01	138.01
SE	79.14, 200.42, 263.54, 257.68, 238.53	263.54
VPP	138.89, 138.89, 291.86, 196.39	291.86

Table 2.45: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SEGR PBOO

Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	296.43, 333.42, 218.53	333.42
CVC	164.40, 204.61, 107.86, 107.86	204.61
AR	138.01	138.01
SE	77.34, 198.34, 261.58, 255.32, 236.17	261.58
VPP	136.62, 136.62, 289.40, 194.26	289.40

Table 2.46: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SINKTREE AFFINE MINPLUS

47. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

48. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	296.43, 333.42, 218.53	333.42
CVC	164.40, 204.61, 107.86, 107.86	204.61
AR	138.01	138.01
SE	77.34, 198.34, 261.58, 255.32, 236.17	261.58
VPP	136.62, 136.62, 289.40, 194.26	289.40

Table 2.47: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	296.43, 333.42, 218.53	333.42
CVC	164.40, 204.61, 107.86, 107.86	204.61
AR	138.01	138.01
SE	77.34, 198.34, 261.58, 255.32, 236.17	261.58
VPP	136.62, 136.62, 289.40, 194.26	289.40

Table 2.48: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SINKTREE AFFINE HOMO

Chapter 3

SCFQ Results

3.1 Backlog

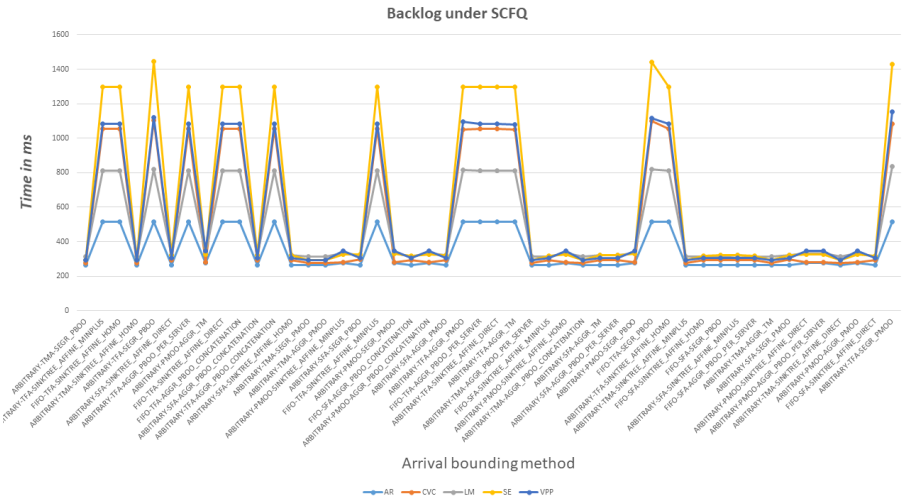

Figure 3.1: SCFQ BACKLOG

3.2 MISOCP

'SE': 208.4436749982687, 'LM': 182.35139999851606, 'VPP': 182.39984999851603, 'CVC': 229.47347499802137, 'AR': 88.17354999950535

3.3 NC Analysis Results

1. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	193.79, 236.38, 156.19	236.38
CVC	135.56, 106.41, 103.63, 103.63	135.56
AR	68.24	68.24
SE	62.60, 216.12, 208.27, 168.59, 153.06	216.12
VPP	105.38, 105.38, 185.32, 120.81	185.32

Table 3.1: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR PBOO PER SERVER

2. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	193.79, 236.38, 156.19	236.38
CVC	135.56, 106.41, 103.63, 103.63	135.56
AR	68.24	68.24
SE	62.60, 216.12, 208.27, 168.59, 153.06	216.12
VPP	105.38, 105.38, 185.32, 120.81	185.32

Table 3.2: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR PBOO CONCATENATION

3. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR PMOO

4. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	194.14, 236.62, 156.41	236.62
CVC	135.42, 106.26, 103.49, 103.49	135.42
AR	68.39	68.39
SE	62.60, 216.12, 208.27, 168.59, 153.06	216.12
VPP	105.97, 105.97, 185.86, 121.13	185.86

Table 3.3: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	193.41, 236.00, 155.88	236.00
CVC	135.30, 106.22, 103.37, 103.37	135.30
AR	68.24	68.24
SE	62.60, 216.12, 208.27, 168.59, 153.06	216.12
VPP	105.05, 105.05, 184.88, 120.37	184.88

Table 3.4: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR TM

5. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	195.02, 238.13, 157.42	238.13
CVC	138.05, 108.12, 106.00, 106.00	138.05
AR	68.24	68.24
SE	67.46, 226.29, 218.44, 178.37, 162.83	226.29
VPP	106.72, 106.72, 187.30, 122.01	187.30

Table 3.5: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SEGR PBOO

6. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SEGR PMOO

7. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	197.55, 240.54, 159.83	240.54
CVC	137.75, 107.57, 105.53, 105.53	137.75
AR	68.39	68.39
SE	66.81, 226.37, 218.53, 178.47, 162.94	226.37
VPP	108.27, 108.27, 189.39, 123.73	189.39

Table 3.6: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SEGR PMOO

Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	193.79, 236.38, 156.19	236.38
CVC	135.56, 106.41, 103.63, 103.63	135.56
AR	68.24	68.24
SE	62.60, 216.12, 208.27, 168.59, 153.06	216.12
VPP	105.38, 105.38, 185.32, 120.81	185.32

Table 3.7: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SINKTREE AFFINE MINPLUS

8. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	193.79, 236.38, 156.19	236.38
CVC	135.56, 106.41, 103.63, 103.63	135.56
AR	68.24	68.24
SE	62.60, 216.12, 208.27, 168.59, 153.06	216.12
VPP	105.38, 105.38, 185.32, 120.81	185.32

Table 3.8: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SINKTREE AFFINE DIRECT

9. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA

Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	193.79, 236.38, 156.19	236.38
CVC	135.56, 106.41, 103.63, 103.63	135.56
AR	68.24	68.24
SE	62.60, 216.12, 208.27, 168.59, 153.06	216.12
VPP	105.38, 105.38, 185.32, 120.81	185.32

Table 3.9: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SINKTREE AFFINE HOMO

10. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	144.44, 163.81, 128.20	163.81
CVC	89.40, 55.31, 78.02, 78.02	89.40
AR	48.76	48.76
SE	53.59, 162.36, 162.32, 114.37, 105.21	162.36
VPP	79.49, 79.49, 133.95, 67.00	133.95

Table 3.10: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR PBOO PER SERVER

11. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

12. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PMOO

13. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	144.44, 163.81, 128.20	163.81
CVC	89.40, 55.31, 78.02, 78.02	89.40
AR	48.76	48.76
SE	53.59, 162.36, 162.32, 114.37, 105.21	162.36
VPP	79.49, 79.49, 133.95, 67.00	133.95

Table 3.11: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	144.26, 164.39, 128.24	164.39
CVC	89.33, 55.29, 77.89, 77.89	89.33
AR	48.76	48.76
SE	53.59, 162.36, 162.32, 114.37, 105.21	162.36
VPP	80.14, 80.14, 134.02, 67.19	134.02

Table 3.12: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR PMOO

Arrival Bounding Method: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	144.08, 163.81, 127.91	163.81
CVC	89.33, 55.25, 77.77, 77.77	89.33
AR	48.76	48.76
SE	53.59, 162.36, 162.32, 114.37, 105.21	162.36
VPP	79.16, 79.16, 133.88, 66.77	133.88

Table 3.13: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR TM

14. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SEGR PBOO

15. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SEGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	144.99, 164.66, 129.35	164.66
CVC	91.02, 56.94, 79.57, 79.57	91.02
AR	48.76	48.76
SE	58.38, 169.12, 169.09, 122.17, 113.00	169.12
VPP	80.28, 80.28, 135.34, 68.12	135.34

Table 3.14: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	146.65, 165.42, 131.41	165.42
CVC	90.80, 56.46, 79.22, 79.22	90.80
AR	48.76	48.76
SE	57.74, 168.45, 168.41, 122.84, 113.95	168.45
VPP	81.74, 81.74, 135.64, 69.57	135.64

Table 3.15: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SEGR PMOO

16. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	144.44, 163.81, 128.20	163.81
CVC	89.40, 55.31, 78.02, 78.02	89.40
AR	48.76	48.76
SE	53.59, 162.36, 162.32, 114.37, 105.21	162.36
VPP	79.49, 79.49, 133.95, 67.00	133.95

Table 3.16: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SINKTREE AFFINE MINPLUS

17. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

18. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	144.44, 163.81, 128.20	163.81
CVC	89.40, 55.31, 78.02, 78.02	89.40
AR	48.76	48.76
SE	53.59, 162.36, 162.32, 114.37, 105.21	162.36
VPP	79.49, 79.49, 133.95, 67.00	133.95

Table 3.17: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SINKTREE AFFINE DIRECT

Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	144.44, 163.81, 128.20	163.81
CVC	89.40, 55.31, 78.02, 78.02	89.40
AR	48.76	48.76
SE	53.59, 162.36, 162.32, 114.37, 105.21	162.36
VPP	79.49, 79.49, 133.95, 67.00	133.95

Table 3.18: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SINKTREE AFFINE HOMO

19. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	190.99, 154.02, 155.86	190.99
CVC	62.47, 51.89, 52.22, 52.22	62.47
AR	71.71	71.71
SE	61.94, 175.73, 175.70, 62.16, 44.24	175.73
VPP	63.64, 63.64, 212.47, 74.89	212.47

Table 3.19: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR PBOO PER SERVER

20. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO

Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	190.99, 154.02, 155.86	190.99
CVC	62.47, 51.89, 52.22, 52.22	62.47
AR	71.71	71.71
SE	61.94, 175.73, 175.70, 62.16, 44.24	175.73
VPP	63.64, 63.64, 212.47, 74.89	212.47

Table 3.20: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR PBOO CONCATENATION

21. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: AGGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	190.87, 154.52, 155.89	190.87
CVC	62.38, 51.86, 52.11, 52.11	62.38
AR	71.71	71.71
SE	61.94, 175.73, 175.70, 62.16, 44.24	175.73
VPP	64.01, 64.01, 212.68, 75.16	212.68

Table 3.21: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR PMOO

22. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: AGGR TM

23. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SEGR PBOO

24. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	190.69, 154.02, 155.56	190.69
CVC	62.38, 51.82, 52.05, 52.05	62.38
AR	71.71	71.71
SE	61.94, 175.73, 175.70, 62.16, 44.24	175.73
VPP	63.38, 63.38, 212.18, 74.64	212.18

Table 3.22: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	190.97, 154.02, 157.00	190.97
CVC	62.47, 53.45, 52.22, 52.22	62.47
AR	71.71	71.71
SE	67.93, 177.27, 177.23, 63.68, 45.45	177.27
VPP	63.63, 63.63, 213.53, 76.24	213.53

Table 3.23: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SEGR PBOO

Arrival Bounding Method: SEGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	190.87, 154.52, 159.06	190.87
CVC	62.38, 52.87, 52.11, 52.11	62.38
AR	71.71	71.71
SE	67.13, 176.92, 176.88, 63.52, 45.32	176.92
VPP	64.01, 64.01, 214.36, 77.53	214.36

Table 3.24: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SEGR PMOO

25. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

26. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	190.99, 154.02, 155.86	190.99
CVC	62.47, 51.89, 52.22, 52.22	62.47
AR	71.71	71.71
SE	61.94, 175.73, 175.70, 62.16, 44.24	175.73
VPP	63.64, 63.64, 212.47, 74.89	212.47

Table 3.25: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	190.99, 154.02, 155.86	190.99
CVC	62.47, 51.89, 52.22, 52.22	62.47
AR	71.71	71.71
SE	61.94, 175.73, 175.70, 62.16, 44.24	175.73
VPP	63.64, 63.64, 212.47, 74.89	212.47

Table 3.26: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SINKTREE AFFINE DIRECT

27. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	190.99, 154.02, 155.86	190.99
CVC	62.47, 51.89, 52.22, 52.22	62.47
AR	71.71	71.71
SE	61.94, 175.73, 175.70, 62.16, 44.24	175.73
VPP	63.64, 63.64, 212.47, 74.89	212.47

Table 3.27: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SINKTREE AFFINE HOMO

28. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	135.93, 151.70, 128.20	151.70
CVC	53.25, 51.38, 45.43, 45.43	53.25
AR	48.76	48.76
SE	53.59, 109.56, 109.52, 53.81, 44.24	109.56
VPP	54.42, 54.42, 109.67, 62.78	109.67

Table 3.28: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR PBOO PER SERVER

29. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	135.93, 151.70, 128.20	151.70
CVC	53.25, 51.38, 45.43, 45.43	53.25
AR	48.76	48.76
SE	53.59, 109.56, 109.52, 53.81, 44.24	109.56
VPP	54.42, 54.42, 109.67, 62.78	109.67

Table 3.29: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR PBOO CONCATENATION

30. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	135.81, 152.20, 128.24	152.20
CVC	53.19, 51.36, 45.34, 45.34	53.19
AR	48.76	48.76
SE	53.59, 109.56, 109.52, 53.81, 44.24	109.56
VPP	54.72, 54.72, 109.72, 62.99	109.72

Table 3.30: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR PMOO

31. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	135.63, 151.70, 127.91	151.70
CVC	53.19, 51.32, 45.30, 45.30	53.19
AR	48.76	48.76
SE	53.59, 109.56, 109.52, 53.81, 44.24	109.56
VPP	54.22, 54.22, 109.60, 62.58	109.60

Table 3.31: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR TM

32. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	135.91, 151.70, 129.35	151.70
CVC	53.25, 52.94, 45.43, 45.43	53.25
AR	48.76	48.76
SE	58.38, 110.48, 110.45, 55.03, 45.45	110.48
VPP	54.41, 54.41, 109.93, 63.84	109.93

Table 3.32: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SEGR PBOO

33. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SEGR PMOO

34. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	135.81, 152.20, 131.41	152.20
CVC	53.19, 52.37, 45.34, 45.34	53.19
AR	48.76	48.76
SE	57.74, 110.40, 110.36, 54.90, 45.32	110.40
VPP	54.71, 54.71, 110.13, 64.86	110.13

Table 3.33: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SEGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	135.93, 151.70, 128.20	151.70
CVC	53.25, 51.38, 45.43, 45.43	53.25
AR	48.76	48.76
SE	53.59, 109.56, 109.52, 53.81, 44.24	109.56
VPP	54.42, 54.42, 109.67, 62.78	109.67

Table 3.34: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SINKTREE AFFINE MINPLUS

35. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	135.93, 151.70, 128.20	151.70
CVC	53.25, 51.38, 45.43, 45.43	53.25
AR	48.76	48.76
SE	53.59, 109.56, 109.52, 53.81, 44.24	109.56
VPP	54.42, 54.42, 109.67, 62.78	109.67

Table 3.35: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SINKTREE AFFINE DIRECT

36. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SINKTREE AFFINE HOMO

37. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	135.93, 151.70, 128.20	151.70
CVC	53.25, 51.38, 45.43, 45.43	53.25
AR	48.76	48.76
SE	53.59, 109.56, 109.52, 53.81, 44.24	109.56
VPP	54.42, 54.42, 109.67, 62.78	109.67

Table 3.36: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SINKTREE AFFINE HOMO

Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	169.96, 204.83, 133.56	204.83
CVC	130.59, 103.22, 99.29, 99.29	130.59
AR	67.74	67.74
SE	59.37, 199.98, 192.13, 160.69, 145.16	199.98
VPP	100.87, 100.87, 172.38, 117.44	172.38

Table 3.37: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: AGGR PBOO PER SERVER

38. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	169.96, 204.83, 133.56	204.83
CVC	130.59, 103.22, 99.29, 99.29	130.59
AR	67.74	67.74
SE	59.37, 199.98, 192.13, 160.69, 145.16	199.98
VPP	100.87, 100.87, 172.38, 117.44	172.38

Table 3.38: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: AGGR PBOO CONCATENATION

39. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA

Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	170.95, 206.30, 134.55	206.30
CVC	132.88, 104.78, 101.45, 101.45	132.88
AR	67.74	67.74
SE	63.66, 209.03, 201.18, 169.39, 153.85	209.03
VPP	102.08, 102.08, 174.19, 118.54	174.19

Table 3.39: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SEGR PBOO

40. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	169.96, 204.83, 133.56	204.83
CVC	130.59, 103.22, 99.29, 99.29	130.59
AR	67.74	67.74
SE	59.37, 199.98, 192.13, 160.69, 145.16	199.98
VPP	100.87, 100.87, 172.38, 117.44	172.38

Table 3.40: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SINKTREE AFFINE MINPLUS

41. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

42. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: SINKTREE AFFINE HOMO

43. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	169.96, 204.83, 133.56	204.83
CVC	130.59, 103.22, 99.29, 99.29	130.59
AR	67.74	67.74
SE	59.37, 199.98, 192.13, 160.69, 145.16	199.98
VPP	100.87, 100.87, 172.38, 117.44	172.38

Table 3.41: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	169.96, 204.83, 133.56	204.83
CVC	130.59, 103.22, 99.29, 99.29	130.59
AR	67.74	67.74
SE	59.37, 199.98, 192.13, 160.69, 145.16	199.98
VPP	100.87, 100.87, 172.38, 117.44	172.38

Table 3.42: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SINKTREE AFFINE HOMO

Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	134.52, 152.62, 118.72	152.62
CVC	87.11, 53.90, 75.87, 75.87	87.11
AR	48.64	48.64
SE	51.56, 156.00, 155.97, 109.94, 100.76	156.00
VPP	77.21, 77.21, 130.05, 65.45	130.05

Table 3.43: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: AGGR PBOO PER SERVER

44. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

45. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	134.52, 152.62, 118.72	152.62
CVC	87.11, 53.90, 75.87, 75.87	87.11
AR	48.64	48.64
SE	51.56, 156.00, 155.97, 109.94, 100.76	156.00
VPP	77.21, 77.21, 130.05, 65.45	130.05

Table 3.44: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	134.99, 153.37, 119.71	153.37
CVC	88.62, 55.40, 77.30, 77.30	88.62
AR	48.64	48.64
SE	55.85, 162.14, 162.10, 116.98, 107.79	162.14
VPP	77.93, 77.93, 131.33, 66.49	131.33

Table 3.45: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SEGR PBOO

46. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	134.52, 152.62, 118.72	152.62
CVC	87.11, 53.90, 75.87, 75.87	87.11
AR	48.64	48.64
SE	51.56, 156.00, 155.97, 109.94, 100.76	156.00
VPP	77.21, 77.21, 130.05, 65.45	130.05

Table 3.46: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SINKTREE AFFINE MINPLUS

47. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

48. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	134.52, 152.62, 118.72	152.62
CVC	87.11, 53.90, 75.87, 75.87	87.11
AR	48.64	48.64
SE	51.56, 156.00, 155.97, 109.94, 100.76	156.00
VPP	77.21, 77.21, 130.05, 65.45	130.05

Table 3.47: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SINKTREE AFFINE DIRECT

Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	134.52, 152.62, 118.72	152.62
CVC	87.11, 53.90, 75.87, 75.87	87.11
AR	48.64	48.64
SE	51.56, 156.00, 155.97, 109.94, 100.76	156.00
VPP	77.21, 77.21, 130.05, 65.45	130.05

Table 3.48: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SINKTREE AFFINE HOMO

Chapter 4

WFQ Results

4.1 Backlog

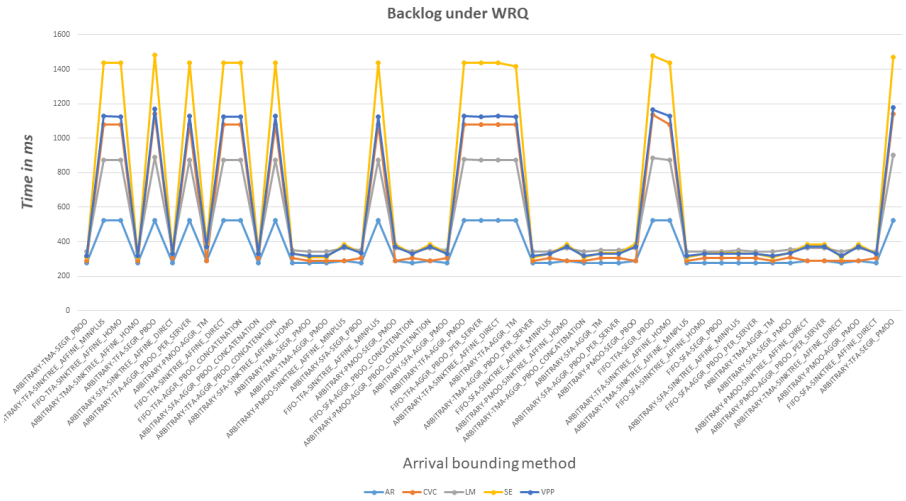

Figure 4.1: WFQ BACKLOG

4.2 MISOCP Delay

'SE': 974.5767886515047, 'LM': 971.392781999488, 'VPP': 779.1626994933757, 'CVC': 489.3402722655048, 'AR': 99.72211106983883

4.3 NC Analysis Results

1. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	261.73, 308.83, 190.75	308.83
CVC	140.47, 159.53, 99.29, 99.29	159.53
AR	94.15	94.15
SE	72.23, 158.38, 220.83, 233.40, 194.38	233.40
VPP	104.43, 104.43, 243.82, 179.65	243.82

Table 4.1: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR PBOO PER SERVER

2. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	261.73, 308.83, 190.75	308.83
CVC	140.47, 159.53, 99.29, 99.29	159.53
AR	94.15	94.15
SE	72.23, 158.38, 220.83, 233.40, 194.38	233.40
VPP	104.43, 104.43, 243.82, 179.65	243.82

Table 4.2: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR PBOO CONCATENATION

3. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR PMOO

4. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	262.15, 309.11, 191.02	309.11
CVC	140.47, 159.53, 99.29, 99.29	159.53
AR	94.30	94.30
SE	72.16, 158.10, 221.05, 233.63, 194.09	233.63
VPP	104.40, 104.40, 243.71, 179.59	243.71

Table 4.3: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	261.24, 308.41, 190.43	308.41
CVC	140.47, 159.53, 99.29, 99.29	159.53
AR	94.15	94.15
SE	71.53, 157.34, 219.46, 232.04, 193.34	232.04
VPP	104.36, 104.36, 243.55, 179.38	243.55

Table 4.4: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR TM

5. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	264.36, 311.44, 192.70	311.44
CVC	142.65, 161.70, 101.47, 101.47	161.70
AR	94.15	94.15
SE	73.64, 161.09, 224.08, 237.78, 198.21	237.78
VPP	106.06, 106.06, 246.56, 181.85	246.56

Table 4.5: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SEGR PBOO

6. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SEGR PMOO

7. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	267.23, 313.98, 194.60	313.98
CVC	142.76, 161.82, 101.59, 101.59	161.82
AR	94.30	94.30
SE	73.21, 160.20, 224.84, 238.14, 196.93	238.14
VPP	106.31, 106.31, 247.32, 182.67	247.32

Table 4.6: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SEGR PMOO

Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	261.73, 308.83, 190.75	308.83
CVC	140.47, 159.53, 99.29, 99.29	159.53
AR	94.15	94.15
SE	72.23, 158.38, 220.83, 233.40, 194.38	233.40
VPP	104.43, 104.43, 243.82, 179.65	243.82

Table 4.7: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SINKTREE AFFINE MINPLUS

8. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	261.73, 308.83, 190.75	308.83
CVC	140.47, 159.53, 99.29, 99.29	159.53
AR	94.15	94.15
SE	72.23, 158.38, 220.83, 233.40, 194.38	233.40
VPP	104.43, 104.43, 243.82, 179.65	243.82

Table 4.8: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SINKTREE AFFINE DIRECT

9. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA

Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	261.73, 308.83, 190.75	308.83
CVC	140.47, 159.53, 99.29, 99.29	159.53
AR	94.15	94.15
SE	72.23, 158.38, 220.83, 233.40, 194.38	233.40
VPP	104.43, 104.43, 243.82, 179.65	243.82

Table 4.9: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SINKTREE AFFINE HOMO

10. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	199.52, 225.31, 160.28	225.31
CVC	102.22, 110.09, 81.58, 81.58	110.09
AR	74.27	74.27
SE	63.07, 118.96, 168.33, 165.90, 142.76	168.33
VPP	78.82, 78.82, 184.16, 123.47	184.16

Table 4.10: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR PBOO PER SERVER

11. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

12. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PMOO

13. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	199.52, 225.31, 160.28	225.31
CVC	102.22, 110.09, 81.58, 81.58	110.09
AR	74.27	74.27
SE	63.07, 118.96, 168.33, 165.90, 142.76	168.33
VPP	78.82, 78.82, 184.16, 123.47	184.16

Table 4.11: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	199.28, 225.96, 160.35	225.96
CVC	102.22, 110.09, 81.58, 81.58	110.09
AR	74.27	74.27
SE	63.00, 118.20, 166.98, 167.76, 142.94	167.76
VPP	78.79, 78.79, 184.36, 123.61	184.36

Table 4.12: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR PMOO

Arrival Bounding Method: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	199.06, 225.30, 159.98	225.30
CVC	102.22, 110.09, 81.58, 81.58	110.09
AR	74.27	74.27
SE	62.38, 117.68, 166.61, 165.36, 142.28	166.61
VPP	78.75, 78.75, 184.16, 123.20	184.16

Table 4.13: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR TM

14. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SEGR PBOO

15. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SEGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	201.00, 226.58, 162.09	226.58
CVC	103.69, 111.57, 83.32, 83.32	111.57
AR	74.27	74.27
SE	64.46, 121.16, 170.64, 168.44, 145.15	170.64
VPP	80.05, 80.05, 185.81, 124.77	185.81

Table 4.14: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	203.08, 227.24, 163.68	227.24
CVC	103.79, 111.81, 83.32, 83.32	111.81
AR	74.27	74.27
SE	64.03, 120.21, 168.06, 170.63, 145.49	170.63
VPP	80.34, 80.34, 185.53, 125.62	185.53

Table 4.15: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SEGR PMOO

16. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	199.52, 225.31, 160.28	225.31
CVC	102.22, 110.09, 81.58, 81.58	110.09
AR	74.27	74.27
SE	63.07, 118.96, 168.33, 165.90, 142.76	168.33
VPP	78.82, 78.82, 184.16, 123.47	184.16

Table 4.16: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SINKTREE AFFINE MINPLUS

17. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

18. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	199.52, 225.31, 160.28	225.31
CVC	102.22, 110.09, 81.58, 81.58	110.09
AR	74.27	74.27
SE	63.07, 118.96, 168.33, 165.90, 142.76	168.33
VPP	78.82, 78.82, 184.16, 123.47	184.16

Table 4.17: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SINKTREE AFFINE DIRECT

Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	199.52, 225.31, 160.28	225.31
CVC	102.22, 110.09, 81.58, 81.58	110.09
AR	74.27	74.27
SE	63.07, 118.96, 168.33, 165.90, 142.76	168.33
VPP	78.82, 78.82, 184.16, 123.47	184.16

Table 4.18: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SINKTREE AFFINE HOMO

19. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	247.25, 211.02, 188.21	247.25
CVC	75.68, 77.23, 63.19, 63.19	77.23
AR	97.68	97.68
SE	72.53, 111.66, 286.50, 125.20, 97.58	286.50
VPP	70.08, 70.08, 258.95, 108.11	258.95

Table 4.19: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR PBOO PER SERVER

20. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO

Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	247.25, 211.02, 188.21	247.25
CVC	75.68, 77.23, 63.19, 63.19	77.23
AR	97.68	97.68
SE	72.53, 111.66, 286.50, 125.20, 97.58	286.50
VPP	70.08, 70.08, 258.95, 108.11	258.95

Table 4.20: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR PBOO CONCATENATION

21. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: AGGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	247.01, 211.55, 188.28	247.01
CVC	75.68, 77.23, 63.19, 63.19	77.23
AR	97.68	97.68
SE	72.44, 111.07, 283.30, 125.63, 98.29	283.30
VPP	70.05, 70.05, 259.12, 108.02	259.12

Table 4.21: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR PMOO

22. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: AGGR TM

23. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SEGR PBOO

24. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	246.66, 211.01, 187.91	246.66
CVC	75.68, 77.23, 63.19, 63.19	77.23
AR	97.68	97.68
SE	71.66, 110.39, 282.68, 124.77, 97.24	282.68
VPP	70.00, 70.00, 258.95, 108.02	258.95

Table 4.22: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	249.63, 211.02, 190.02	249.63
CVC	75.68, 77.23, 63.52, 63.52	77.23
AR	97.68	97.68
SE	74.27, 112.70, 288.46, 125.88, 98.42	288.46
VPP	71.16, 71.16, 261.05, 108.76	261.05

Table 4.23: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SEGR PBOO

Arrival Bounding Method: SEGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	250.30, 211.56, 191.61	250.30
CVC	75.68, 77.23, 63.57, 63.57	77.23
AR	97.68	97.68
SE	73.73, 112.24, 283.63, 125.74, 99.23	283.63
VPP	71.59, 71.59, 260.50, 108.45	260.50

Table 4.24: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SEGR PMOO

25. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

26. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	247.25, 211.02, 188.21	247.25
CVC	75.68, 77.23, 63.19, 63.19	77.23
AR	97.68	97.68
SE	72.53, 111.66, 286.50, 125.20, 97.58	286.50
VPP	70.08, 70.08, 258.95, 108.11	258.95

Table 4.25: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	247.25, 211.02, 188.21	247.25
CVC	75.68, 77.23, 63.19, 63.19	77.23
AR	97.68	97.68
SE	72.53, 111.66, 286.50, 125.20, 97.58	286.50
VPP	70.08, 70.08, 258.95, 108.11	258.95

Table 4.26: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SINKTREE AFFINE DIRECT

27. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	247.25, 211.02, 188.21	247.25
CVC	75.68, 77.23, 63.19, 63.19	77.23
AR	97.68	97.68
SE	72.53, 111.66, 286.50, 125.20, 97.58	286.50
VPP	70.08, 70.08, 258.95, 108.11	258.95

Table 4.27: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SINKTREE AFFINE HOMO

28. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	186.08, 208.59, 160.28	208.59
CVC	68.76, 76.97, 56.22, 56.22	76.97
AR	74.27	74.27
SE	63.07, 97.92, 138.04, 111.82, 97.58	138.04
VPP	62.73, 62.73, 154.86, 96.18	154.86

Table 4.28: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR PBOO PER SERVER

29. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	186.08, 208.59, 160.28	208.59
CVC	68.76, 76.97, 56.22, 56.22	76.97
AR	74.27	74.27
SE	63.07, 97.92, 138.04, 111.82, 97.58	138.04
VPP	62.73, 62.73, 154.86, 96.18	154.86

Table 4.29: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR PBOO CONCATENATION

30. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	185.94, 209.13, 160.35	209.13
CVC	68.76, 76.97, 56.22, 56.22	76.97
AR	74.27	74.27
SE	63.00, 97.45, 137.19, 112.16, 98.29	137.19
VPP	62.70, 62.70, 154.90, 96.11	154.90

Table 4.30: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR PMOO

31. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	185.72, 208.59, 159.98	208.59
CVC	68.76, 76.97, 56.22, 56.22	76.97
AR	74.27	74.27
SE	62.38, 96.91, 137.02, 111.47, 97.24	137.02
VPP	62.66, 62.66, 154.86, 96.11	154.86

Table 4.31: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR TM

32. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	186.61, 208.59, 162.09	208.59
CVC	68.76, 76.97, 56.48, 56.48	76.97
AR	74.27	74.27
SE	64.46, 98.75, 138.56, 112.36, 98.42	138.56
VPP	63.57, 63.57, 155.38, 96.69	155.38

Table 4.32: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SEGR PBOO

33. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SEGR PMOO

34. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	186.68, 209.13, 163.68	209.13
CVC	68.76, 76.97, 56.52, 56.52	76.97
AR	74.27	74.27
SE	64.03, 98.39, 137.27, 112.25, 99.23	137.27
VPP	63.92, 63.92, 155.24, 96.45	155.24

Table 4.33: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SEGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	186.08, 208.59, 160.28	208.59
CVC	68.76, 76.97, 56.22, 56.22	76.97
AR	74.27	74.27
SE	63.07, 97.92, 138.04, 111.82, 97.58	138.04
VPP	62.73, 62.73, 154.86, 96.18	154.86

Table 4.34: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SINKTREE AFFINE MINPLUS

35. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	186.08, 208.59, 160.28	208.59
CVC	68.76, 76.97, 56.22, 56.22	76.97
AR	74.27	74.27
SE	63.07, 97.92, 138.04, 111.82, 97.58	138.04
VPP	62.73, 62.73, 154.86, 96.18	154.86

Table 4.35: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SINKTREE AFFINE DIRECT

36. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SINKTREE AFFINE HOMO

37. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	186.08, 208.59, 160.28	208.59
CVC	68.76, 76.97, 56.22, 56.22	76.97
AR	74.27	74.27
SE	63.07, 97.92, 138.04, 111.82, 97.58	138.04
VPP	62.73, 62.73, 154.86, 96.18	154.86

Table 4.36: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SINKTREE AFFINE HOMO

Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	231.61, 268.51, 162.48	268.51
CVC	134.96, 153.36, 94.46, 94.46	153.36
AR	93.49	93.49
SE	68.20, 151.03, 212.72, 223.33, 185.06	223.33
VPP	100.53, 100.53, 226.51, 173.40	226.51

Table 4.37: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: AGGR PBOO PER SERVER

38. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	231.61, 268.51, 162.48	268.51
CVC	134.96, 153.36, 94.46, 94.46	153.36
AR	93.49	93.49
SE	68.20, 151.03, 212.72, 223.33, 185.06	223.33
VPP	100.53, 100.53, 226.51, 173.40	226.51

Table 4.38: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: AGGR PBOO CONCATENATION

39. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA

Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	233.80, 270.67, 164.03	270.67
CVC	136.91, 155.31, 96.41, 96.41	155.31
AR	93.49	93.49
SE	69.44, 153.45, 215.63, 227.32, 188.55	227.32
VPP	102.03, 102.03, 229.01, 175.42	229.01

Table 4.39: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SEGR PBOO

40. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	231.61, 268.51, 162.48	268.51
CVC	134.96, 153.36, 94.46, 94.46	153.36
AR	93.49	93.49
SE	68.20, 151.03, 212.72, 223.33, 185.06	223.33
VPP	100.53, 100.53, 226.51, 173.40	226.51

Table 4.40: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SINKTREE AFFINE MINPLUS

41. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

42. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: SINKTREE AFFINE HOMO

43. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	231.61, 268.51, 162.48	268.51
CVC	134.96, 153.36, 94.46, 94.46	153.36
AR	93.49	93.49
SE	68.20, 151.03, 212.72, 223.33, 185.06	223.33
VPP	100.53, 100.53, 226.51, 173.40	226.51

Table 4.41: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	231.61, 268.51, 162.48	268.51
CVC	134.96, 153.36, 94.46, 94.46	153.36
AR	93.49	93.49
SE	68.20, 151.03, 212.72, 223.33, 185.06	223.33
VPP	100.53, 100.53, 226.51, 173.40	226.51

Table 4.42: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SINKTREE AFFINE HOMO

Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	185.93, 209.54, 147.32	209.54
CVC	99.21, 106.91, 78.77, 78.77	106.91
AR	74.07	74.07
SE	60.40, 114.64, 163.80, 160.82, 137.89	163.80
VPP	76.88, 76.88, 178.23, 120.48	178.23

Table 4.43: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: AGGR PBOO PER SERVER

44. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

45. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	185.93, 209.54, 147.32	209.54
CVC	99.21, 106.91, 78.77, 78.77	106.91
AR	74.07	74.07
SE	60.40, 114.64, 163.80, 160.82, 137.89	163.80
VPP	76.88, 76.88, 178.23, 120.48	178.23

Table 4.44: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	187.25, 210.64, 148.87	210.64
CVC	100.55, 108.26, 80.35, 80.35	108.26
AR	74.07	74.07
SE	61.63, 116.64, 165.91, 163.16, 140.09	165.91
VPP	78.02, 78.02, 179.75, 121.70	179.75

Table 4.45: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SEGR PBOO

46. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	185.93, 209.54, 147.32	209.54
CVC	99.21, 106.91, 78.77, 78.77	106.91
AR	74.07	74.07
SE	60.40, 114.64, 163.80, 160.82, 137.89	163.80
VPP	76.88, 76.88, 178.23, 120.48	178.23

Table 4.46: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SINKTREE AFFINE MINPLUS

47. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

48. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	185.93, 209.54, 147.32	209.54
CVC	99.21, 106.91, 78.77, 78.77	106.91
AR	74.07	74.07
SE	60.40, 114.64, 163.80, 160.82, 137.89	163.80
VPP	76.88, 76.88, 178.23, 120.48	178.23

Table 4.47: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SINKTREE AFFINE DIRECT

Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	185.93, 209.54, 147.32	209.54
CVC	99.21, 106.91, 78.77, 78.77	106.91
AR	74.07	74.07
SE	60.40, 114.64, 163.80, 160.82, 137.89	163.80
VPP	76.88, 76.88, 178.23, 120.48	178.23

Table 4.48: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SINKTREE AFFINE HOMO

Chapter 5

WRR Results

5.1 Backlog

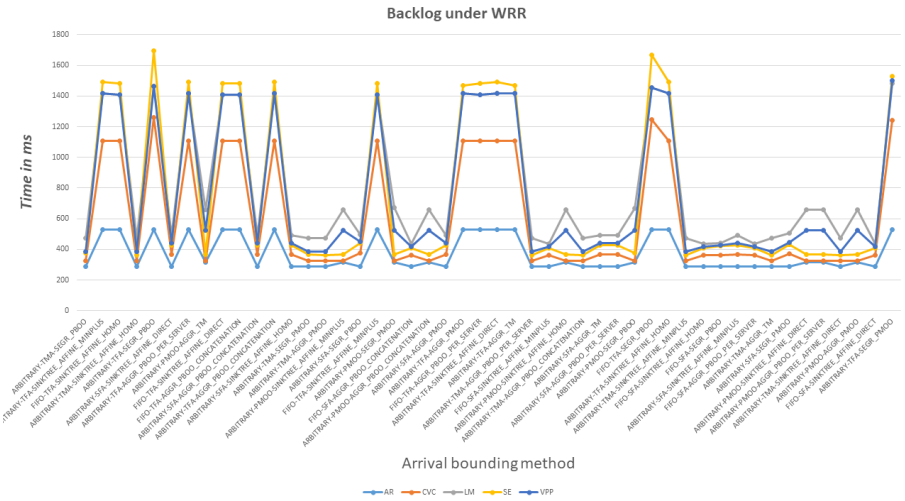

Figure 5.1: WRR BACKLOG

5.2 NC Analysis Results

1. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	828.81, 873.59, 586.29	873.59
CVC	320.32, 380.65, 217.73, 217.73	380.65
AR	176.41	176.41
SE	156.66, 387.23, 430.33, 500.97, 485.67	500.97
VPP	258.25, 258.25, 632.53, 455.99	632.53

Table 5.1: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR PBOO PER SERVER

2. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	828.81, 873.59, 586.29	873.59
CVC	320.32, 380.65, 217.73, 217.73	380.65
AR	176.41	176.41
SE	156.66, 387.23, 430.33, 500.97, 485.67	500.97
VPP	258.25, 258.25, 632.53, 455.99	632.53

Table 5.2: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR PBOO CONCATENATION

3. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: AGGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	828.81, 873.59, 586.29	873.59
CVC	320.32, 380.65, 217.73, 217.73	380.65
AR	176.41	176.41
SE	154.82, 383.16, 428.04, 498.69, 483.39	498.69
VPP	258.25, 258.25, 632.53, 455.99	632.53

Table 5.3: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR PMOO

4. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA

Arrival Bounding Method: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	828.81, 873.59, 586.29	873.59
CVC	320.32, 380.65, 217.73, 217.73	380.65
AR	176.41	176.41
SE	154.82, 383.16, 428.04, 498.69, 483.39	498.69
VPP	258.25, 258.25, 632.53, 455.99	632.53

Table 5.4: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: AGGR TM

5. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	851.88, 892.69, 604.48	892.69
CVC	334.73, 395.06, 232.14, 232.14	395.06
AR	176.41	176.41
SE	174.34, 413.75, 467.82, 544.43, 529.13	544.43
VPP	278.52, 278.52, 654.55, 478.01	654.55

Table 5.5: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SEGR PBOO

6. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SEGR PMOO

7. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SINKTREE AFFINE MINPLUS

8. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	873.78, 913.31, 620.79	913.31
CVC	333.08, 393.41, 230.48, 230.48	393.41
AR	176.41	176.41
SE	160.13, 392.53, 442.03, 515.69, 500.39	515.69
VPP	287.42, 287.42, 666.28, 489.74	666.28

Table 5.6: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SEGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	828.81, 873.59, 586.29	873.59
CVC	320.32, 380.65, 217.73, 217.73	380.65
AR	176.41	176.41
SE	156.66, 387.23, 430.33, 500.97, 485.67	500.97
VPP	258.25, 258.25, 632.53, 455.99	632.53

Table 5.7: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SINKTREE AFFINE MINPLUS

Arrival Bounding Method: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	828.81, 873.59, 586.29	873.59
CVC	320.32, 380.65, 217.73, 217.73	380.65
AR	176.41	176.41
SE	156.66, 387.23, 430.33, 500.97, 485.67	500.97
VPP	258.25, 258.25, 632.53, 455.99	632.53

Table 5.8: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SINKTREE AFFINE DIRECT

9. NC Analysis Results Multiplexing: ARBITRARY
   Network Analysis Method: TFA
   Arrival Bounding Method: SINKTREE AFFINE HOMO

10. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	828.81, 873.59, 586.29	873.59
CVC	320.32, 380.65, 217.73, 217.73	380.65
AR	176.41	176.41
SE	156.66, 387.23, 430.33, 500.97, 485.67	500.97
VPP	258.25, 258.25, 632.53, 455.99	632.53

Table 5.9: Experiment results for Multiplexing: ARBITRARY, Analysis: TFA, Arrival Bound: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	563.48, 563.10, 442.64	563.48
CVC	220.25, 244.08, 178.20, 178.20	244.08
AR	139.95	139.95
SE	140.29, 264.04, 309.33, 357.49, 351.77	357.49
VPP	216.05, 216.05, 450.44, 313.84	450.44

Table 5.10: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR PBOO PER SERVER

11. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	563.48, 563.10, 442.64	563.48
CVC	220.25, 244.08, 178.20, 178.20	244.08
AR	139.95	139.95
SE	140.29, 264.04, 309.33, 357.49, 351.77	357.49
VPP	216.05, 216.05, 450.44, 313.84	450.44

Table 5.11: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR PBOO CONCATENATION

12. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PMOO

13. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	563.48, 563.10, 442.64	563.48
CVC	220.25, 244.08, 178.20, 178.20	244.08
AR	139.95	139.95
SE	138.52, 263.58, 308.14, 355.33, 349.61	355.33
VPP	216.05, 216.05, 450.44, 313.84	450.44

Table 5.12: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR PMOO

Arrival Bounding Method: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	563.48, 563.10, 442.64	563.48
CVC	220.25, 244.08, 178.20, 178.20	244.08
AR	139.95	139.95
SE	138.52, 263.58, 308.02, 355.33, 349.61	355.33
VPP	216.05, 216.05, 450.44, 313.84	450.44

Table 5.13: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: AGGR TM

14. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	574.97, 570.78, 457.14	574.97
CVC	229.76, 253.72, 189.37, 189.37	253.72
AR	139.95	139.95
SE	157.22, 288.09, 338.55, 382.33, 376.40	382.33
VPP	232.42, 232.42, 464.49, 327.08	464.49

Table 5.14: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SEGR PBOO

15. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA

Arrival Bounding Method: SEGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	594.53, 569.60, 470.15	594.53
CVC	229.02, 252.87, 187.78, 187.78	252.87
AR	139.95	139.95
SE	143.61, 271.42, 318.37, 365.36, 359.58	365.36
VPP	240.95, 240.95, 461.61, 341.22	461.61

Table 5.15: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SEGR PMOO

16. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	563.48, 563.10, 442.64	563.48
CVC	220.25, 244.08, 178.20, 178.20	244.08
AR	139.95	139.95
SE	140.29, 264.04, 309.33, 357.49, 351.77	357.49
VPP	216.05, 216.05, 450.44, 313.84	450.44

Table 5.16: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SINKTREE AFFINE MINPLUS

17. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

18. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE HOMO

19. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	563.48, 563.10, 442.64	563.48
CVC	220.25, 244.08, 178.20, 178.20	244.08
AR	139.95	139.95
SE	140.29, 264.04, 309.33, 357.49, 351.77	357.49
VPP	216.05, 216.05, 450.44, 313.84	450.44

Table 5.17: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	563.48, 563.10, 442.64	563.48
CVC	220.25, 244.08, 178.20, 178.20	244.08
AR	139.95	139.95
SE	140.29, 264.04, 309.33, 357.49, 351.77	357.49
VPP	216.05, 216.05, 450.44, 313.84	450.44

Table 5.18: Experiment results for Multiplexing: ARBITRARY, Analysis: SFA, Arrival Bound: SINKTREE AFFINE HOMO

Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	891.69, 545.80, 528.26	891.69
CVC	134.45, 161.95, 112.42, 112.42	161.95
AR	195.28	195.28
SE	140.29, 237.41, 191.69, 201.51, 194.18	237.41
VPP	143.04, 143.04, 612.81, 197.03	612.81

Table 5.19: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR PBOO PER SERVER

20. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: AGGR PBOO CONCATENATION

21. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: AGGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	891.69, 545.80, 528.26	891.69
CVC	134.45, 161.95, 112.42, 112.42	161.95
AR	195.28	195.28
SE	140.29, 237.41, 191.69, 201.51, 194.18	237.41
VPP	143.04, 143.04, 612.81, 197.03	612.81

Table 5.20: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	891.69, 545.80, 528.26	891.69
CVC	134.45, 161.95, 112.42, 112.42	161.95
AR	195.28	195.28
SE	138.52, 236.95, 190.39, 199.37, 192.05	236.95
VPP	143.04, 143.04, 612.81, 197.03	612.81

Table 5.21: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR PMOO

22. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: AGGR TM

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	891.69, 545.80, 528.26	891.69
CVC	134.45, 161.95, 112.42, 112.42	161.95
AR	195.28	195.28
SE	138.52, 236.95, 190.39, 199.37, 192.05	236.95
VPP	143.04, 143.04, 612.81, 197.03	612.81

Table 5.22: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: AGGR TM

23. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	910.00, 545.80, 542.76	910.00
CVC	134.45, 161.95, 114.08, 114.08	161.95
AR	195.28	195.28
SE	157.22, 260.18, 197.39, 201.41, 194.09	260.18
VPP	146.85, 146.85, 612.81, 197.03	612.81

Table 5.23: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SEGR PBOO

24. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SEGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	915.90, 545.80, 555.77	915.90
CVC	134.45, 161.95, 114.08, 114.08	161.95
AR	195.28	195.28
SE	143.61, 243.72, 192.07, 199.37, 192.05	243.72
VPP	148.08, 148.08, 612.81, 197.03	612.81

Table 5.24: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SEGR PMOO

25. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	891.69, 545.80, 528.26	891.69
CVC	134.45, 161.95, 112.42, 112.42	161.95
AR	195.28	195.28
SE	140.29, 237.41, 191.69, 201.51, 194.18	237.41
VPP	143.04, 143.04, 612.81, 197.03	612.81

Table 5.25: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SINKTREE AFFINE MINPLUS

26. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	891.69, 545.80, 528.26	891.69
CVC	134.45, 161.95, 112.42, 112.42	161.95
AR	195.28	195.28
SE	140.29, 237.41, 191.69, 201.51, 194.18	237.41
VPP	143.04, 143.04, 612.81, 197.03	612.81

Table 5.26: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SINKTREE AFFINE DIRECT

27. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: PMOO
    Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	891.69, 545.80, 528.26	891.69
CVC	134.45, 161.95, 112.42, 112.42	161.95
AR	195.28	195.28
SE	140.29, 237.41, 191.69, 201.51, 194.18	237.41
VPP	143.04, 143.04, 612.81, 197.03	612.81

Table 5.27: Experiment results for Multiplexing: ARBITRARY, Analysis: PMOO, Arrival Bound: SINKTREE AFFINE HOMO

28. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR PBOO PER SERVER

29. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	527.73, 527.32, 442.64	527.73
CVC	134.45, 160.38, 112.42, 112.42	160.38
AR	139.95	139.95
SE	140.29, 234.66, 191.69, 201.51, 194.18	234.66
VPP	143.04, 143.04, 341.21, 194.58	341.21

Table 5.28: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	527.73, 527.32, 442.64	527.73
CVC	134.45, 160.38, 112.42, 112.42	160.38
AR	139.95	139.95
SE	140.29, 234.66, 191.69, 201.51, 194.18	234.66
VPP	143.04, 143.04, 341.21, 194.58	341.21

Table 5.29: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR PBOO CONCATENATION

30. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	527.73, 527.32, 442.64	527.73
CVC	134.45, 160.38, 112.42, 112.42	160.38
AR	139.95	139.95
SE	138.52, 234.20, 190.39, 199.37, 192.05	234.20
VPP	143.04, 143.04, 341.21, 194.58	341.21

Table 5.30: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR PMOO

31. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: AGGR TM

32. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	527.73, 527.32, 442.64	527.73
CVC	134.45, 160.38, 112.42, 112.42	160.38
AR	139.95	139.95
SE	138.52, 234.20, 190.39, 199.37, 192.05	234.20
VPP	143.04, 143.04, 341.21, 194.58	341.21

Table 5.31: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: AGGR TM

Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	531.53, 527.32, 457.14	531.53
CVC	134.45, 160.38, 114.08, 114.08	160.38
AR	139.95	139.95
SE	157.22, 257.18, 197.39, 201.41, 194.09	257.18
VPP	146.85, 146.85, 341.21, 194.58	341.21

Table 5.32: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SEGR PBOO

33. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SEGR PMOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	532.76, 527.32, 470.15	532.76
CVC	134.45, 160.38, 114.08, 114.08	160.38
AR	139.95	139.95
SE	143.61, 240.89, 192.07, 199.37, 192.05	240.89
VPP	148.08, 148.08, 341.21, 194.58	341.21

Table 5.33: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SEGR PMOO

34. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA

Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	527.73, 527.32, 442.64	527.73
CVC	134.45, 160.38, 112.42, 112.42	160.38
AR	139.95	139.95
SE	140.29, 234.66, 191.69, 201.51, 194.18	234.66
VPP	143.04, 143.04, 341.21, 194.58	341.21

Table 5.34: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SINKTREE AFFINE MINPLUS

35. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	527.73, 527.32, 442.64	527.73
CVC	134.45, 160.38, 112.42, 112.42	160.38
AR	139.95	139.95
SE	140.29, 234.66, 191.69, 201.51, 194.18	234.66
VPP	143.04, 143.04, 341.21, 194.58	341.21

Table 5.35: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SINKTREE AFFINE DIRECT

36. NC Analysis Results Multiplexing: ARBITRARY
    Network Analysis Method: TMA
    Arrival Bounding Method: SINKTREE AFFINE HOMO

37. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: AGGR PBOO PER SERVER

38. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	527.73, 527.32, 442.64	527.73
CVC	134.45, 160.38, 112.42, 112.42	160.38
AR	139.95	139.95
SE	140.29, 234.66, 191.69, 201.51, 194.18	234.66
VPP	143.04, 143.04, 341.21, 194.58	341.21

Table 5.36: Experiment results for Multiplexing: ARBITRARY, Analysis: TMA, Arrival Bound: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	567.24, 565.46, 353.75	567.24
CVC	288.13, 344.94, 189.19, 189.19	344.94
AR	172.81	172.81
SE	131.59, 343.00, 378.20, 441.88, 426.58	441.88
VPP	217.76, 217.76, 510.42, 402.79	510.42

Table 5.37: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: AGGR PBOO PER SERVER

Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	567.24, 565.46, 353.75	567.24
CVC	288.13, 344.94, 189.19, 189.19	344.94
AR	172.81	172.81
SE	131.59, 343.00, 378.20, 441.88, 426.58	441.88
VPP	217.76, 217.76, 510.42, 402.79	510.42

Table 5.38: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: AGGR PBOO CONCATENATION

39. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: SEGR PBOO

40. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	580.74, 575.91, 363.40	580.74
CVC	299.18, 355.98, 200.24, 200.24	355.98
AR	172.81	172.81
SE	144.71, 363.40, 407.42, 476.41, 461.11	476.41
VPP	232.52, 232.52, 526.69, 419.06	526.69

Table 5.39: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	567.24, 565.46, 353.75	567.24
CVC	288.13, 344.94, 189.19, 189.19	344.94
AR	172.81	172.81
SE	131.59, 343.00, 378.20, 441.88, 426.58	441.88
VPP	217.76, 217.76, 510.42, 402.79	510.42

Table 5.40: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SINKTREE AFFINE MINPLUS

41. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	567.24, 565.46, 353.75	567.24
CVC	288.13, 344.94, 189.19, 189.19	344.94
AR	172.81	172.81
SE	131.59, 343.00, 378.20, 441.88, 426.58	441.88
VPP	217.76, 217.76, 510.42, 402.79	510.42

Table 5.41: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SINKTREE AFFINE DIRECT

42. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: TFA
    Arrival Bounding Method: SINKTREE AFFINE HOMO

43. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	567.24, 565.46, 353.75	567.24
CVC	288.13, 344.94, 189.19, 189.19	344.94
AR	172.81	172.81
SE	131.59, 343.00, 378.20, 441.88, 426.58	441.88
VPP	217.76, 217.76, 510.42, 402.79	510.42

Table 5.42: Experiment results for Multiplexing: FIFO, Analysis: TFA, Arrival Bound: SINKTREE AFFINE HOMO

Arrival Bounding Method: AGGR PBOO PER SERVER

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	461.40, 459.38, 349.17	461.40
CVC	203.33, 226.56, 162.14, 162.14	226.56
AR	138.98	138.98
SE	124.06, 239.81, 280.82, 326.75, 320.90	326.75
VPP	190.90, 190.90, 408.33, 284.78	408.33

Table 5.43: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: AGGR PBOO PER SERVER

44. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: AGGR PBOO CONCATENATION

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	461.40, 459.38, 349.17	461.40
CVC	203.33, 226.56, 162.14, 162.14	226.56
AR	138.98	138.98
SE	124.06, 239.81, 280.82, 326.75, 320.90	326.75
VPP	190.90, 190.90, 408.33, 284.78	408.33

Table 5.44: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: AGGR PBOO CONCATENATION

45. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA

Arrival Bounding Method: SEGR PBOO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	469.69, 464.59, 358.82	469.69
CVC	210.88, 234.22, 171.10, 171.10	234.22
AR	138.98	138.98
SE	137.18, 259.00, 304.73, 347.16, 341.12	347.16
VPP	203.43, 203.43, 418.96, 294.86	418.96

Table 5.45: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SEGR PBOO

46. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE MINPLUS

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	461.40, 459.38, 349.17	461.40
CVC	203.33, 226.56, 162.14, 162.14	226.56
AR	138.98	138.98
SE	124.06, 239.81, 280.82, 326.75, 320.90	326.75
VPP	190.90, 190.90, 408.33, 284.78	408.33

Table 5.46: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SINKTREE AFFINE MINPLUS

47. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE DIRECT

48. NC Analysis Results Multiplexing: FIFO
    Network Analysis Method: SFA
    Arrival Bounding Method: SINKTREE AFFINE HOMO

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	461.40, 459.38, 349.17	461.40
CVC	203.33, 226.56, 162.14, 162.14	226.56
AR	138.98	138.98
SE	124.06, 239.81, 280.82, 326.75, 320.90	326.75
VPP	190.90, 190.90, 408.33, 284.78	408.33

Table 5.47: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SINKTREE AFFINE DIRECT

Service Name	Flow Delays (ms)	Max Delay (ms)
LM	461.40, 459.38, 349.17	461.40
CVC	203.33, 226.56, 162.14, 162.14	226.56
AR	138.98	138.98
SE	124.06, 239.81, 280.82, 326.75, 320.90	326.75
VPP	190.90, 190.90, 408.33, 284.78	408.33

Table 5.48: Experiment results for Multiplexing: FIFO, Analysis: SFA, Arrival Bound: SINKTREE AFFINE HOMO