```
Flow 1: (offset, period, delay, arrival_prob, success_prob) = (0, 1, 2, 0.200000, 0.400000)
Flow 2: (offset, period, delay, arrival_prob, success_prob) = (0, 1, 2, 0.200000, 0.600000)
weighted_sum, w=utility_coeff=[1.000000, 1.000000, ]
Finish getOptimalSolutionRAC with time 6.606272 seconds
Finish getApproximateSolutionRAC with time 1.248761 seconds
Finish getBalancePrimalSolution with time 1.247677 seconds
Finish getBalanceDualSolution with time 1.200048 seconds
optimal_utility_RAC=0.257568
optimal_utility_RAC_approx=0.285375
{\tt optimal\_utility\_balance\_primal=0.361905}
optimal_utility_balance_dual=0.361905
delta=0.268170
1ambda=0.180952
h(1)=0.066667
h(2)=0.114286
Flow 1, lambda=0.180952, h1=0.066667, lambda+h1=0.247619
Transition matrix for al=0, not schedule
              1=(0 \ 0),
                             2=(0 1),
                                            3=(1 \ 0),
                                                          4 = (1 \ 1)
1 = (0 \ 0),
                             0.200000,
                                            0.000000,
                                                          0.000000
              0.800000,
2=(0 1),
              0.000000,
                             0.000000,
                                            0.800000,
                                                          0.200000
3=(1 \ 0),
              0.800000,
                             0.200000,
                                            0.000000,
                                                          0.000000
              0. 0000000.
                             0.000000.
                                            0.800000.
                                                          0.200000
4=(1 1),
Transition matrix for a1=1, schedule
              1 = (0 \ 0),
                             2=(0 \ 1),
                                            3=(1 \ 0),
                                                          4=(1 1)
1=(0 \ 0),
              0.800000,
                             0.200000,
                                            0.000000,
                                                          0.000000
2=(0 1),
                                                          0.120000
              0.320000,
                             0.080000,
                                            0.480000.
3=(1 \ 0),
              0.800000,
                             0.200000,
                                            0.000000,
                                                          0.000000
              0.000000.
                             0.000000.
                                            0.800000,
                                                          0.200000
4=(1 1),
Balance-primal, Balance-dual information
      s1,
            w1*r(s1, 1),
                              z(s1, 0),
                                             z(s1, 1),
                                                             mu(s1),
                                                                      DeltaPhi(s1,0), DeltaPhi(s1,1), w1*r(s1,1)+DeltaPhi(s1,1)
1=(0 \ 0),
              0.000000,
                             0.882206,
                                            0.000000,
                                                          0.000000,
                                                                            0.066667,
                                                                                              0.066667,
                                                                                                                          0.066667
2=(0 \ 1),
              0.400000,
                             0.000000,
                                            0.220551,
                                                          0.333333,
                                                                            -0.076190,
                                                                                             -0.152381,
                                                                                                                          0.247619
3=(1 \ 0),
              0.400000,
                             0.000000,
                                            0.132331,
                                                          0.219048,
                                                                            -0.152381,
                                                                                             -0.152381,
                                                                                                                          0.247619
              0.400000.
4=(1 1),
                             0.000000.
                                            0.033083,
                                                          0.409524,
                                                                           -0.152381,
                                                                                             -0.152381,
                                                                                                                          0.247619
Flow 2, lambda=0.180952, h2=0.114286, lambda+h2=0.295238
Transition matrix for a2=0, not schedule
              1=(0 \ 0),
                             2=(0 \ 1),
                                            3=(1 \ 0),
                                                          4=(1 1)
1=(0 \ 0),
              0.800000,
                             0.200000,
                                            0.000000,
                                                          0.000000
                                                          0.200000
2=(0 1),
              0.000000,
                             0.000000,
                                            0.800000,
3=(1 \ 0),
                             0, 200000.
                                                          0.000000
              0.800000.
                                            0.000000.
4=(1 1),
              0.000000,
                             0.000000,
                                            0.800000,
                                                          0.200000
Transition matrix for a2=1, schedule
              1=(0 \ 0),
                             2=(0 1),
                                            3=(1 \ 0),
                                                          4=(1 1)
1 = (0 \ 0),
              0.800000,
                             0.200000,
                                            0.000000,
                                                          0.000000
2=(0 \ 1),
              0.480000,
                             0.120000,
                                            0.320000,
                                                          0.080000
3=(1 \ 0),
              0.800000,
                             0.200000,
                                            0.000000,
                                                          0.000000
4=(1 1),
              0.000000,
                             0.000000,
                                            0.800000,
                                                          0.200000
Balance-primal, Balance-dual information
                                                                      DeltaPhi(s2,0), DeltaPhi(s2,1), w2*r(s2,1)+DeltaPhi(s2,1)
            w2*r(s2, 1),
                              z(s2,0).
                                            z(s2, 1).
                                                            mu(s2).
      s2,
1=(0 \ 0),
              0.000000,
                             0.922306,
                                            0.000000,
                                                          0.000000,
                                                                            0.114286,
                                                                                              0.114286,
                                                                                                                          0.114286
```

 $2=(0 \ 1)$ ,

 $3=(1 \ 0)$ ,

 $4=(1 \ 1),$ 

0.600000,

0.600000,

0.600000,

0.000000,

0.000000,

0.000000,

0.230576,

0.092231.

0.023058,

0.571429,

0.419048,

0.800000,

-0.076190,

-0.304762,

-0.304762,

-0.304762,

-0.304762,

-0.304762,

0.295238

0.295238

0.295238