

Lab 3: Distance Vector Routing Algorithm

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CS536

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Part 2

	D0		1	2	3
	----		-----		
	1		1	4	10
dest	2		2	3	9
	3		4	5	7

	D1		0	2
	----		-----	
	0		1	3
dest	2		3	1
	3		5	3

	D2		0	1	3
	----		-----		
	0		3	4	6
dest	1		4	1	5
	3		7	4	2

	D3		0	2
	----		-----	
	0		7	4
dest	1		8	3
	2		9	2

Enter TRACE:2
[0] rtinit0 starts at 0.000000.

```

          via
D0 |      1      2      3
----|-----
    1|      1    999    999
dest 2| 999      3    999
    3| 999    999      7
[0] rtinit0 sends routing packet to 1.
[0] rtinit0 sends routing packet to 2.
[0] rtinit0 sends routing packet to 3.
[1] rtinit1 starts at 0.000000.
[1] rtinit1 send routing packet to 0.
[1] rtinit1 send routing packet to 2.
          via
D1 |      0      2
----|-----
    0|      1    999
dest 2| 999      1
    3| 999    999
[2] rtinit2 starts at 0.000000.
[2] rtinit2 sends routing packet to 0.
[2] rtinit2 sends routing packet to 1.
[2] rtinit2 sends routing packet to 3.
          via
D2 |      0      1      3
----|-----
    0|      3    999    999
dest 1| 999      1    999
    3| 999    999      2
[3] rtinit3 starts at 0.000000.
[3] rtinit3 sends routing packet to 0.
[3] rtinit3 sends routing packet to 2.
          via
D3 |      0      2
----|-----
    0|      7    999
dest 1| 999    999
    2| 999      2
MAIN: rcv event, t=0.947, at 3 src: 0, dest: 3, contents:   0   1   3   7
[3] rtupdate3 is called at 0.946640.
[3] routing packet from 0.
[3] rtupdate3 sends routing packet to 0.
[3] rtupdate3 sends routing packet to 2.
          via
D3 |      0      2
----|-----

```

```

    0|    7   999
dest 1|    8   999
    2|   10    2
MAIN: rcv event, t=0.992, at 0 src: 1, dest: 0, contents:   1   0   1 999
[0] rtupdate0 is called at 0.992243.
[0] routing packet from 1.
      via
    D0 |    1    2    3
    ----|-----
    1|    1   999   999
dest 2|    2    3   999
    3|   999   999    7
[0] rtupdate0 sends routing packet to 1.
[0] rtupdate0 sends routing packet to 2.
[0] rtupdate0 sends routing packet to 3.
MAIN: rcv event, t=1.209, at 3 src: 2, dest: 3, contents:   3   1   0   2
[3] rtupdate3 is called at 1.209223.
[3] routing packet from 2.
[3] rtupdate3 sends routing packet to 0.
[3] rtupdate3 sends routing packet to 2.
      via
    D3 |    0    2
    ----|-----
    0|    7    5
dest 1|    8    3
    2|   10    2
MAIN: rcv event, t=1.276, at 3 src: 0, dest: 3, contents:   0   1   2   7
[3] rtupdate3 is called at 1.275716.
[3] routing packet from 0.
      via
    D3 |    0    2
    ----|-----
    0|    7    5
dest 1|    8    3
    2|    9    2
MAIN: rcv event, t=1.642, at 2 src: 0, dest: 2, contents:   0   1   3   7
[2] rtupdate2 is called at 1.641910.
[2] routing packet from 0.
      via
    D2 |    0    1    3
    ----|-----
    0|    3   999   999
dest 1|    4    1   999
    3|   10   999    2
MAIN: rcv event, t=1.871, at 1 src: 0, dest: 1, contents:   0   1   3   7

```

[1] rtupdate1 is called at 1.870574.
 [1] routing packet from 0.
 [1] rtupdate1 sends routing packet to 0.
 [1] rtupdate1 sends routing packet to 2.

via

D1	0	2
0	1	999
dest 2	4	1
3	8	999

MAIN: rcv event, t=2.166, at 2 src: 1, dest: 2, contents: 1 0 1 999

[2] rtupdate2 is called at 2.165707.
 [2] routing packet from 1.
 [2] rtupdate2 sends routing packet to 0.
 [2] rtupdate2 sends routing packet to 1.
 [2] rtupdate2 sends routing packet to 3.

via

D2	0	1	3
0	3	2	999
dest 1	4	1	999
3	10	999	2

MAIN: rcv event, t=2.407, at 0 src: 2, dest: 0, contents: 3 1 0 2

[0] rtupdate0 is called at 2.406722.
 [0] routing packet from 2.

via

D0	1	2	3
1	1	4	999
dest 2	2	3	999
3	999	5	7

[0] rtupdate0 sends routing packet to 1.
 [0] rtupdate0 sends routing packet to 2.
 [0] rtupdate0 sends routing packet to 3.

MAIN: rcv event, t=2.421, at 2 src: 3, dest: 2, contents: 7 999 2 0

[2] rtupdate2 is called at 2.421268.
 [2] routing packet from 3.

via

D2	0	1	3
0	3	2	9
dest 1	4	1	999
3	10	999	2

MAIN: rcv event, t=2.811, at 1 src: 2, dest: 1, contents: 3 1 0 2

[1] rtupdate1 is called at 2.810933.

[1] routing packet from 2.

[1] rtupdate1 sends routing packet to 0.

[1] rtupdate1 sends routing packet to 2.

via

D1	0	2
----		-----
0	1	4
dest 2	4	1
3	8	3

MAIN: rcv event, t=3.293, at 2 src: 3, dest: 2, contents: 7 8 2 0

[2] rtupdate2 is called at 3.292663.

[2] routing packet from 3.

via

D2	0	1	3
----		-----	-----
0	3	2	9
dest 1	4	1	10
3	10	999	2

MAIN: rcv event, t=3.602, at 3 src: 2, dest: 3, contents: 2 1 0 2

[3] rtupdate3 is called at 3.601910.

[3] routing packet from 2.

[3] rtupdate3 sends routing packet to 0.

[3] rtupdate3 sends routing packet to 2.

via

D3	0	2
----		-----
0	7	4
dest 1	8	3
2	9	2

MAIN: rcv event, t=4.063, at 2 src: 0, dest: 2, contents: 0 1 2 7

[2] rtupdate2 is called at 4.063167.

[2] routing packet from 0.

via

D2	0	1	3
----		-----	-----
0	3	2	9
dest 1	4	1	10
3	10	999	2

MAIN: rcv event, t=4.104, at 0 src: 3, dest: 0, contents: 7 999 2 0

[0] rtupdate0 is called at 4.103641.

[0] routing packet from 3.

via

D0	1	2	3
----		-----	-----
1	1	4	999

```

dest 2|    2    3    9
      3| 999    5    7
MAIN: rcv event, t=4.169, at 2 src: 3, dest: 2, contents:  5  3  2  0
[2] rtupdate2 is called at 4.169482.
[2] routing packet from 3.
      via
D2 |    0    1    3
----|-----
0|    3    2    7
dest 1|    4    1    5
      3|   10  999    2
MAIN: rcv event, t=4.330, at 0 src: 3, dest: 0, contents:  7  8  2  0
[0] rtupdate0 is called at 4.330418.
[0] routing packet from 3.
      via
D0 |    1    2    3
----|-----
1|    1    4   15
dest 2|    2    3    9
      3| 999    5    7
MAIN: rcv event, t=4.643, at 1 src: 0, dest: 1, contents:  0  1  2  7
[1] rtupdate1 is called at 4.643052.
[1] routing packet from 0.
      via
D1 |    0    2
----|-----
0|    1    4
dest 2|    3    1
      3|    8    3
MAIN: rcv event, t=5.213, at 0 src: 3, dest: 0, contents:  5  3  2  0
[0] rtupdate0 is called at 5.212747.
[0] routing packet from 3.
      via
D0 |    1    2    3
----|-----
1|    1    4   10
dest 2|    2    3    9
      3| 999    5    7
MAIN: rcv event, t=5.384, at 3 src: 0, dest: 3, contents:  0  1  2  5
[3] rtupdate3 is called at 5.383835.
[3] routing packet from 0.
      via
D3 |    0    2
----|-----
0|    7    4

```

```

dest 1|    8    3
      2|    9    2
MAIN: rcv event, t=5.820, at 1 src: 2, dest: 1, contents:  2  1  0  2
[1] rtupdate1 is called at 5.820477.
[1] routing packet from 2.
      via
    D1 |    0    2
    ----|-----
      0|    1    3
dest 2|    3    1
      3|    8    3
MAIN: rcv event, t=6.042, at 2 src: 1, dest: 2, contents:  1  0  1  8
[2] rtupdate2 is called at 6.042466.
[2] routing packet from 1.
      via
    D2 |    0    1    3
    ----|-----
      0|    3    2    7
dest 1|    4    1    5
      3|   10    9    2
MAIN: rcv event, t=6.071, at 0 src: 1, dest: 0, contents:  1  0  1  8
[0] rtupdate0 is called at 6.071281.
[0] routing packet from 1.
      via
    D0 |    1    2    3
    ----|-----
      1|    1    4   10
dest 2|    2    3    9
      3|    9    5    7
MAIN: rcv event, t=6.532, at 1 src: 0, dest: 1, contents:  0  1  2  5
[1] rtupdate1 is called at 6.532176.
[1] routing packet from 0.
      via
    D1 |    0    2
    ----|-----
      0|    1    3
dest 2|    3    1
      3|    6    3
MAIN: rcv event, t=7.021, at 0 src: 2, dest: 0, contents:  2  1  0  2
[0] rtupdate0 is called at 7.020665.
[0] routing packet from 2.
      via
    D0 |    1    2    3
    ----|-----
      1|    1    4   10

```

```

dest 2|    2    3    9
      3|    9    5    7
MAIN: rcv event, t=7.160, at 2 src: 0, dest: 2, contents:  0  1  2  5
[2] rtupdate2 is called at 7.160166.
[2] routing packet from 0.
      via
D2 |    0    1    3
----|-----
0|    3    2    7
dest 1|    4    1    5
      3|    8    9    2
MAIN: rcv event, t=7.405, at 0 src: 1, dest: 0, contents:  1  0  1  3
[0] rtupdate0 is called at 7.405163.
[0] routing packet from 1.
      via
D0 |    1    2    3
----|-----
1|    1    4   10
dest 2|    2    3    9
      3|    4    5    7
[0] rtupdate0 sends routing packet to 1.
[0] rtupdate0 sends routing packet to 2.
[0] rtupdate0 sends routing packet to 3.
MAIN: rcv event, t=7.579, at 3 src: 0, dest: 3, contents:  0  1  2  4
[3] rtupdate3 is called at 7.579368.
[3] routing packet from 0.
      via
D3 |    0    2
----|-----
0|    7    4
dest 1|    8    3
      2|    9    2
MAIN: rcv event, t=7.941, at 1 src: 0, dest: 1, contents:  0  1  2  4
[1] rtupdate1 is called at 7.941363.
[1] routing packet from 0.
      via
D1 |    0    2
----|-----
0|    1    3
dest 2|    3    1
      3|    5    3
MAIN: rcv event, t=8.086, at 0 src: 3, dest: 0, contents:  4  3  2  0
[0] rtupdate0 is called at 8.085963.
[0] routing packet from 3.
      via

```


D0	1	2	3
----		-----	-----
1	1	4	10
dest 2	2	3	9
3	4	5	7

MAIN: rcv event, t=8.639, at 2 src: 1, dest: 2, contents: 1 0 1 3

[2] rtupdate2 is called at 8.638953.

[2] routing packet from 1.

via

D2	0	1	3
----		-----	-----
0	3	2	7
dest 1	4	1	5
3	8	4	2

MAIN: rcv event, t=8.943, at 2 src: 3, dest: 2, contents: 4 3 2 0

[2] rtupdate2 is called at 8.942584.

[2] routing packet from 3.

via

D2	0	1	3
----		-----	-----
0	3	2	6
dest 1	4	1	5
3	8	4	2

MAIN: rcv event, t=9.960, at 2 src: 0, dest: 2, contents: 0 1 2 4

[2] rtupdate2 is called at 9.959651.

[2] routing packet from 0.

via

D2	0	1	3
----		-----	-----
0	3	2	6
dest 1	4	1	5
3	7	4	2

MAIN: rcv event, t=10000.000, at -1[0] linkhandler0 is called at 10000.000000.

Link Handlers

[0] cost of link between 0 and 1 is now 20.

via

D0	1	2	3
----		-----	-----
1	20	4	10
dest 2	21	3	9
3	23	5	7

[0] rtupdate0 sends routing packet to 1.

[0] rtupdate0 sends routing packet to 2.

[0] rtupdate0 sends routing packet to 3.

[1] linkhandler1 is called at 10000.000000.

[1] cost of link between 1 and 0 is now 20.

```
          via
    D1 |    0    2
    ----|-----
      0|   20    3
dest 2|   22    1
      3|   24    3
```

[1] linkhandler1 sends routing packet to 0.

[1] linkhandler1 sends routing packet to 2.

MAIN: rcv event, t=10000.178, at 1 src: 0, dest: 1, contents: 0 4 3 5

[1] rtupdate1 is called at 10000.177734.

[1] routing packet from 0.

```
          via
    D1 |    0    2
    ----|-----
      0|   20    3
dest 2|   23    1
      3|   25    3
```

MAIN: rcv event, t=10000.702, at 0 src: 1, dest: 0, contents: 3 0 1 3

[0] rtupdate0 is called at 10000.702148.

[0] routing packet from 1.

```
          via
    D0 |    1    2    3
    ----|-----
      1|   20    4   10
dest 2|   21    3    9
      3|   23    5    7
```

MAIN: rcv event, t=10001.166, at 3 src: 0, dest: 3, contents: 0 4 3 5

[3] rtupdate3 is called at 10001.166016.

[3] routing packet from 0.

```
          via
    D3 |    0    2
    ----|-----
      0|    7    4
dest 1|   11    3
      2|   10    2
```

MAIN: rcv event, t=10001.964, at 2 src: 0, dest: 2, contents: 0 4 3 5

[2] rtupdate2 is called at 10001.963867.

[2] routing packet from 0.

```
          via
    D2 |    0    1    3
    ----|-----
      0|    3    2    6
dest 1|    7    1    5
```

```

    3|    8    4    2
MAIN: rcv event, t=10003.342, at 2 src: 1, dest: 2, contents:   3   0   1   3
[2] rtupdate2 is called at 10003.341797.
[2] routing packet from 1.
      via
    D2 |    0    1    3
    ----|-----
        0|    3    4    6
dest 1|    7    1    5
        3|    8    4    2
MAIN: rcv event, t=20000.000, at 0[0] linkhandler0 is called at 20000.000000.
[0] cost of link between 0 and 1 is now 1.
      via
    D0 |    1    2    3
    ----|-----
        1|    1    4   10
dest 2|    2    3    9
        3|    4    5    7
[0] rtupdate0 sends routing packet to 1.
[0] rtupdate0 sends routing packet to 2.
[0] rtupdate0 sends routing packet to 3.
[1] linkhandler1 is called at 20000.000000.
[1] cost of link between 1 and 0 is now 1.
      via
    D1 |    0    2
    ----|-----
        0|    1    3
dest 2|    4    1
        3|    6    3
[1] linkhandler1 sends routing packet to 0.
[1] linkhandler1 sends routing packet to 2.
MAIN: rcv event, t=20000.107, at 1 src: 0, dest: 1, contents:   0   1   2   4
[1] rtupdate1 is called at 20000.107422.
[1] routing packet from 0.
      via
    D1 |    0    2
    ----|-----
        0|    1    3
dest 2|    3    1
        3|    5    3
MAIN: rcv event, t=20000.363, at 0 src: 1, dest: 0, contents:   1   0   1   3
[0] rtupdate0 is called at 20000.363281.
[0] routing packet from 1.
      via
    D0 |    1    2    3

```

```

----|-----
    1|    1    4    10
dest 2|    2    3    9
    3|    4    5    7
MAIN: rcv event, t=20000.965, at 2 src: 0, dest: 2, contents:  0  1  2  4
[2] rtupdate2 is called at 20000.964844.
[2] routing packet from 0.
      via
    D2 |    0    1    3
----|-----
    0|    3    4    6
dest 1|    4    1    5
    3|    7    4    2
MAIN: rcv event, t=20001.074, at 3 src: 0, dest: 3, contents:  0  1  2  4
[3] rtupdate3 is called at 20001.074219.
[3] routing packet from 0.
      via
    D3 |    0    2
----|-----
    0|    7    4
dest 1|    8    3
    2|    9    2
MAIN: rcv event, t=20002.156, at 2 src: 1, dest: 2, contents:  1  0  1  3
[2] rtupdate2 is called at 20002.156250.
[2] routing packet from 1.
      via
    D2 |    0    1    3
----|-----
    0|    3    2    6
dest 1|    4    1    5
    3|    7    4    2

Simulator terminated at t=20002.156250, no packets in medium

```