

Results

November 8, 2020

1 General Informations

Run type: sequential.

Number of elements in the topology: 378.

Number of LPs used in the simulation: 8.

Simulation duration: 0.899 seconds.

Average memory usage: -nan GB.

Peak memory usage: 73.70 MB.

All elements reached stability in the simulation.

1.1 Topology Informations

There is one Central node, between the Central node and the Regional layer there is one WAN. Between each regional and its Locals there is a WAN.

There are 8 regional nodes, each of them has 5 local nodes. In total 40 local nodes.

Each local node has 1 LANs below. Each LAN has:

- 5 sensors sending telemetries with rate: 0.0002,.
- 1 sensors sending transitions with rate: 0.0005.
- 1 actuators sending trasitions with rate: 0.0005,.

In total there are 240 total sensors and 40 total actuators.

2 Detailed view

2.1 Central node 0

This element finished the simulation at simulation time: 2700414.479621.

2.1.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
1.5	1	1	0.5	3	3	4	6

2.1.2 Computed parameters

Analytical Model				Simulated Model			
λ_t	λ_e	λ_c	λ_b	λ_t	λ_e	λ_c	λ_b
0.00444	0.04	0	0	0.00444	0.04	0	0
D_t	D_e	D_c	D_b	D_t	D_e	D_c	D_b
1.5	1	0	0	1.49	1	0	0
U_t	U_e	U_c	U_b	U_t	U_e	U_c	U_b
0.00667	0.04	0	0	0.00661	0.0401	0	0
Total Utilization Factor = 0.0467				Total Utilization Factor = 0.0467			
R_t	R_e	R_c	R_b	R_t	R_e	R_c	R_b
1.57	1.05	0	0	1.54	1.05	0	0

2.2 Central storage of Node 0

2.2.1 Given parameters

S_t	S_e	S_c	S_b
1.5	1	1	0.5

2.2.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.00444	0.04	0	0

D_t	D_e	D_c	D_b
1.5	1	0	0

U_t	U_e	U_c	U_b
0.00667	0.04	0	0

Total Utilization Factor = 0.0467

R_t	R_e	R_c	R_b
1.57	1.05	0	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.00444	0.04	0	0

D_t	D_e	D_c	D_b
1.49	1	0	0

U_t	U_e	U_c	U_b
0.00661	0.0401	0	0

Total Utilization Factor = 0.0467

R_t	R_e	R_c	R_b
1.54	1.05	0	0

2.3 Regional node 1

This element finished the simulation at simulation time: 2700271.366825.

This node has its computed parameters λ , utilization factor, service demand and response time similar by 20.0% to these other nodes: **2; 3; 4; 5; 6; 7; 8;**

2.3.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
0.5	0.2	0.3	0.2	3	3	4	6

2.3.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.00167	0.005	0.0005	0

D_t	D_e	D_c	D_b
0.5	0.4	0.3	0

U_t	U_e	U_c	U_b
0.000833	0.002	0.00015	0

Total Utilization Factor = 0.00298

R_t	R_e	R_c	R_b
0.501	0.401	0.301	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.00167	0.00499	0.000483	0

D_t	D_e	D_c	D_b
0.485	0.399	0.288	0

U_t	U_e	U_c	U_b
0.000809	0.00199	0.000139	0

Total Utilization Factor = 0.00294

R_t	R_e	R_c	R_b
0.486	0.4	0.312	0

2.4 Local node 9

This element finished the simulation at simulation time: 2700251.0.

This node has its computed parameters λ , utilization factor, service demand and response time similar by 20.0% to these other nodes: **10; 11; 12; 14; 15; 16; 19; 20; 21; 22; 26; 29; 30; 31; 32; 33; 35; 37; 39; 41; 42; 43; 44; 46; 47;**

2.4.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
1.5	1	1	0.5	3	3	4	6

2.4.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0.0001	0

D_t	D_e	D_c	D_b
1.5	2	1	0

U_t	U_e	U_c	U_b
0.0015	0.002	0.0001	0

Total Utilization Factor = 0.0036

R_t	R_e	R_c	R_b
1.51	2.01	1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.00101	0.00102	$8.87e-05$	0

D_t	D_e	D_c	D_b
1.51	2	0.98	0

U_t	U_e	U_c	U_b
0.00152	0.00203	$8.69e-05$	0

Total Utilization Factor = 0.00364

R_t	R_e	R_c	R_b
1.51	2.01	0.98	0

2.5 Local node 13

This element finished the simulation at simulation time: 2700359.0.

2.5.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
1.5	1	1	0.5	3	3	4	6

2.5.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0.0001	0

D_t	D_e	D_c	D_b
1.5	2	1	0

U_t	U_e	U_c	U_b
0.0015	0.002	0.0001	0

Total Utilization Factor = 0.0036

R_t	R_e	R_c	R_b
1.51	2.01	1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.00101	0.00103	0.000101	0

D_t	D_e	D_c	D_b
1.5	1.95	1.07	0

U_t	U_e	U_c	U_b
0.00152	0.00201	0.000109	0

Total Utilization Factor = 0.00364

R_t	R_e	R_c	R_b
1.51	1.96	1.08	0

2.6 Local node 17

This element finished the simulation at simulation time: 2699886.682879.

2.6.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
1.5	1	1	0.5	3	3	4	6

2.6.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0.0001	0

D_t	D_e	D_c	D_b
1.5	2	1	0

U_t	U_e	U_c	U_b
0.0015	0.002	0.0001	0

Total Utilization Factor = 0.0036

R_t	R_e	R_c	R_b
1.51	2.01	1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.000998	0.00103	0.000101	0

D_t	D_e	D_c	D_b
1.5	2.03	1.14	0

U_t	U_e	U_c	U_b
0.00149	0.00208	0.000115	0

Total Utilization Factor = 0.00368

R_t	R_e	R_c	R_b
1.5	2.03	1.14	0

2.7 Local node 18

This element finished the simulation at simulation time: 2698764.889127.

2.7.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
1.5	1	1	0.5	3	3	4	6

2.7.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0.0001	0

D_t	D_e	D_c	D_b
1.5	2	1	0

U_t	U_e	U_c	U_b
0.0015	0.002	0.0001	0

Total Utilization Factor = 0.0036

R_t	R_e	R_c	R_b
1.51	2.01	1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.001	0.00101	0.000107	0

D_t	D_e	D_c	D_b
1.45	2.05	1.02	0

U_t	U_e	U_c	U_b
0.00146	0.00208	0.000109	0

Total Utilization Factor = 0.00365

R_t	R_e	R_c	R_b
1.46	2.05	1.02	0

2.8 Local node 23

This element finished the simulation at simulation time: 2700324.146408.

2.8.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
1.5	1	1	0.5	3	3	4	6

2.8.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0.0001	0

D_t	D_e	D_c	D_b
1.5	2	1	0

U_t	U_e	U_c	U_b
0.0015	0.002	0.0001	0

Total Utilization Factor = 0.0036

R_t	R_e	R_c	R_b
1.51	2.01	1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.00103	0.000995	0.00011	0

D_t	D_e	D_c	D_b
1.49	2.04	0.799	0

U_t	U_e	U_c	U_b
0.00153	0.00203	$8.81e-05$	0

Total Utilization Factor = 0.00365

R_t	R_e	R_c	R_b
1.5	2.05	0.799	0

2.9 Local node 24

This element finished the simulation at simulation time: 2699310.856761.

2.9.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
1.5	1	1	0.5	3	3	4	6

2.9.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0.0001	0

D_t	D_e	D_c	D_b
1.5	2	1	0

U_t	U_e	U_c	U_b
0.0015	0.002	0.0001	0

Total Utilization Factor = 0.0036

R_t	R_e	R_c	R_b
1.51	2.01	1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.000999	0.000999	0.000105	0

D_t	D_e	D_c	D_b
1.6	2	1.05	0

U_t	U_e	U_c	U_b
0.0016	0.002	0.000111	0

Total Utilization Factor = 0.00371

R_t	R_e	R_c	R_b
1.61	2.01	1.05	0

2.10 Local node 25

This element finished the simulation at simulation time: 2700050.759797.

2.10.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
1.5	1	1	0.5	3	3	4	6

2.10.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0.0001	0

D_t	D_e	D_c	D_b
1.5	2	1	0

U_t	U_e	U_c	U_b
0.0015	0.002	0.0001	0

Total Utilization Factor = 0.0036

R_t	R_e	R_c	R_b
1.51	2.01	1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.00102	0.00102	0.000105	0

D_t	D_e	D_c	D_b
1.51	2	1.06	0

U_t	U_e	U_c	U_b
0.00153	0.00205	0.000112	0

Total Utilization Factor = 0.00369

R_t	R_e	R_c	R_b
1.51	2.01	1.1	0

2.11 Local node 27

This element finished the simulation at simulation time: 2700412.614859.

2.11.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
1.5	1	1	0.5	3	3	4	6

2.11.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0.0001	0

D_t	D_e	D_c	D_b
1.5	2	1	0

U_t	U_e	U_c	U_b
0.0015	0.002	0.0001	0

Total Utilization Factor = 0.0036

R_t	R_e	R_c	R_b
1.51	2.01	1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.000981	0.00102	0.000109	0

D_t	D_e	D_c	D_b
1.51	2.02	1.09	0

U_t	U_e	U_c	U_b
0.00148	0.00207	0.000119	0

Total Utilization Factor = 0.00367

R_t	R_e	R_c	R_b
1.51	2.03	1.09	0

2.12 Local node 28

This element finished the simulation at simulation time: 2700386.214245.

2.12.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
1.5	1	1	0.5	3	3	4	6

2.12.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0.0001	0

D_t	D_e	D_c	D_b
1.5	2	1	0

U_t	U_e	U_c	U_b
0.0015	0.002	0.0001	0

Total Utilization Factor = 0.0036

R_t	R_e	R_c	R_b
1.51	2.01	1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.000994	0.000975	0.000103	0

D_t	D_e	D_c	D_b
1.5	2.01	1.18	0

U_t	U_e	U_c	U_b
0.00149	0.00196	0.000122	0

Total Utilization Factor = 0.00357

R_t	R_e	R_c	R_b
1.51	2.02	1.18	0

2.13 Local node 34

This element finished the simulation at simulation time: 2700291.063771.

2.13.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
1.5	1	1	0.5	3	3	4	6

2.13.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0.0001	0

D_t	D_e	D_c	D_b
1.5	2	1	0

U_t	U_e	U_c	U_b
0.0015	0.002	0.0001	0

Total Utilization Factor = 0.0036

R_t	R_e	R_c	R_b
1.51	2.01	1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.00101	0.000969	0.000112	0

D_t	D_e	D_c	D_b
1.5	1.99	0.952	0

U_t	U_e	U_c	U_b
0.00152	0.00193	0.000106	0

Total Utilization Factor = 0.00356

R_t	R_e	R_c	R_b
1.51	2.01	0.957	0

2.14 Local node 36

This element finished the simulation at simulation time: 2699974.498629.

2.14.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
1.5	1	1	0.5	3	3	4	6

2.14.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0.0001	0

D_t	D_e	D_c	D_b
1.5	2	1	0

U_t	U_e	U_c	U_b
0.0015	0.002	0.0001	0

Total Utilization Factor = 0.0036

R_t	R_e	R_c	R_b
1.51	2.01	1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.000998	0.00099	0.000108	0

D_t	D_e	D_c	D_b
1.47	1.99	1.03	0

U_t	U_e	U_c	U_b
0.00146	0.00197	0.000111	0

Total Utilization Factor = 0.00354

R_t	R_e	R_c	R_b
1.47	2	1.03	0

2.15 Local node 38

This element finished the simulation at simulation time: 2699736.306095.

2.15.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
1.5	1	1	0.5	3	3	4	6

2.15.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0.0001	0

D_t	D_e	D_c	D_b
1.5	2	1	0

U_t	U_e	U_c	U_b
0.0015	0.002	0.0001	0

Total Utilization Factor = 0.0036

R_t	R_e	R_c	R_b
1.51	2.01	1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.000989	0.00101	0.000101	0

D_t	D_e	D_c	D_b
1.51	2.03	1.16	0

U_t	U_e	U_c	U_b
0.00149	0.00206	0.000117	0

Total Utilization Factor = 0.00367

R_t	R_e	R_c	R_b
1.51	2.04	1.17	0

2.16 Local node 40

This element finished the simulation at simulation time: 2699820.757831.

2.16.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
1.5	1	1	0.5	3	3	4	6

2.16.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0.0001	0

D_t	D_e	D_c	D_b
1.5	2	1	0

U_t	U_e	U_c	U_b
0.0015	0.002	0.0001	0

Total Utilization Factor = 0.0036

R_t	R_e	R_c	R_b
1.51	2.01	1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.00101	0.00099	0.000103	0

D_t	D_e	D_c	D_b
1.5	2	1.11	0

U_t	U_e	U_c	U_b
0.00152	0.00198	0.000114	0

Total Utilization Factor = 0.00361

R_t	R_e	R_c	R_b
1.51	2	1.11	0

2.17 Local node 45

This element finished the simulation at simulation time: 2697906.054431.

2.17.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
1.5	1	1	0.5	3	3	4	6

2.17.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0.0001	0

D_t	D_e	D_c	D_b
1.5	2	1	0

U_t	U_e	U_c	U_b
0.0015	0.002	0.0001	0

Total Utilization Factor = 0.0036

R_t	R_e	R_c	R_b
1.51	2.01	1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.000993	0.00104	0.000109	0

D_t	D_e	D_c	D_b
1.51	2	1.12	0

U_t	U_e	U_c	U_b
0.0015	0.00207	0.000122	0

Total Utilization Factor = 0.00369

R_t	R_e	R_c	R_b
1.51	2.01	1.13	0

2.18 Local node 48

This element finished the simulation at simulation time: 2699251.70998.

2.18.1 Given parameters

S_t	S_e	S_c	S_b	$aggr_t$	$aggr_e$	$aggr_c$	$aggr_b$
1.5	1	1	0.5	3	3	4	6

2.18.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0.0001	0

D_t	D_e	D_c	D_b
1.5	2	1	0

U_t	U_e	U_c	U_b
0.0015	0.002	0.0001	0

Total Utilization Factor = 0.0036

R_t	R_e	R_c	R_b
1.51	2.01	1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.00099	0.000992	0.000116	0

D_t	D_e	D_c	D_b
1.54	1.99	1.13	0

U_t	U_e	U_c	U_b
0.00152	0.00198	0.000132	0

Total Utilization Factor = 0.00363

R_t	R_e	R_c	R_b
1.55	2	1.14	0

2.19 Actuator 55

This element finished the simulation at simulation time: 2699662.660422.

This actuator has its computed parameters λ , utilization factor, service demand and response time similar by 20.0% to these other nodes: **62; 69; 76; 83; 90; 97; 104; 111; 132; 146; 181; 188; 195; 202; 209; 216; 223; 237; 251; 272; 279; 293; 300; 314; 321;**

2.19.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.6	0

2.19.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.6	0

U_t	U_e	U_c	U_b
0	0	$6e - 05$	0

Total Utilization Factor = $6e - 05$

R_t	R_e	R_c	R_b
0	0	0.6	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	$8.76e - 05$	0

D_t	D_e	D_c	D_b
0	0	0.58	0

U_t	U_e	U_c	U_b
0	0	$5.08e - 05$	0

Total Utilization Factor = $5.08e - 05$

R_t	R_e	R_c	R_b
0	0	0.58	0

2.20 Actuator 118

This element finished the simulation at simulation time: 2698154.655629.

2.20.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.6	0

2.20.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.6	0

U_t	U_e	U_c	U_b
0	0	$6e-05$	0

Total Utilization Factor = $6e-05$

R_t	R_e	R_c	R_b
0	0	0.6	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000107	0

D_t	D_e	D_c	D_b
0	0	0.611	0

U_t	U_e	U_c	U_b
0	0	$6.53e-05$	0

Total Utilization Factor = $6.53e-05$

R_t	R_e	R_c	R_b
0	0	0.611	0

2.21 Actuator 125

This element finished the simulation at simulation time: 2699882.853971.

2.21.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.6	0

2.21.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.6	0

U_t	U_e	U_c	U_b
0	0	$6e-05$	0

Total Utilization Factor = $6e-05$

R_t	R_e	R_c	R_b
0	0	0.6	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000101	0

D_t	D_e	D_c	D_b
0	0	0.681	0

U_t	U_e	U_c	U_b
0	0	$6.87e-05$	0

Total Utilization Factor = $6.87e-05$

R_t	R_e	R_c	R_b
0	0	0.681	0

2.22 Actuator 139

This element finished the simulation at simulation time: 2699113.549468.

2.22.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.6	0

2.22.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.6	0

U_t	U_e	U_c	U_b
0	0	$6e-05$	0

Total Utilization Factor = $6e-05$

R_t	R_e	R_c	R_b
0	0	0.6	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000104	0

D_t	D_e	D_c	D_b
0	0	0.659	0

U_t	U_e	U_c	U_b
0	0	$6.88e-05$	0

Total Utilization Factor = $6.88e-05$

R_t	R_e	R_c	R_b
0	0	0.659	0

2.23 Actuator 153

This element finished the simulation at simulation time: 2698009.204724.

2.23.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.6	0

2.23.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.6	0

U_t	U_e	U_c	U_b
0	0	$6e-05$	0

Total Utilization Factor = $6e-05$

R_t	R_e	R_c	R_b
0	0	0.6	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.00011	0

D_t	D_e	D_c	D_b
0	0	0.639	0

U_t	U_e	U_c	U_b
0	0	$7.06e-05$	0

Total Utilization Factor = $7.06e-05$

R_t	R_e	R_c	R_b
0	0	0.639	0

2.24 Actuator 160

This element finished the simulation at simulation time: 2697871.341478.

2.24.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.6	0

2.24.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.6	0

U_t	U_e	U_c	U_b
0	0	$6e-05$	0

Total Utilization Factor = $6e-05$

R_t	R_e	R_c	R_b
0	0	0.6	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000105	0

D_t	D_e	D_c	D_b
0	0	0.619	0

U_t	U_e	U_c	U_b
0	0	$6.52e-05$	0

Total Utilization Factor = $6.52e-05$

R_t	R_e	R_c	R_b
0	0	0.619	0

2.25 Actuator 167

This element finished the simulation at simulation time: 2699295.199021.

2.25.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.6	0

2.25.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.6	0

U_t	U_e	U_c	U_b
0	0	$6e-05$	0

Total Utilization Factor = $6e-05$

R_t	R_e	R_c	R_b
0	0	0.6	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000105	0

D_t	D_e	D_c	D_b
0	0	0.632	0

U_t	U_e	U_c	U_b
0	0	$6.64e-05$	0

Total Utilization Factor = $6.64e-05$

R_t	R_e	R_c	R_b
0	0	0.632	0

2.26 Actuator 174

This element finished the simulation at simulation time: 2700314.838298.

2.26.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.6	0

2.26.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.6	0

U_t	U_e	U_c	U_b
0	0	$6e-05$	0

Total Utilization Factor = $6e-05$

R_t	R_e	R_c	R_b
0	0	0.6	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.00011	0

D_t	D_e	D_c	D_b
0	0	0.587	0

U_t	U_e	U_c	U_b
0	0	$6.43e-05$	0

Total Utilization Factor = $6.43e-05$

R_t	R_e	R_c	R_b
0	0	0.587	0

2.27 Actuator 230

This element finished the simulation at simulation time: 2697317.740056.

2.27.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.6	0

2.27.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.6	0

U_t	U_e	U_c	U_b
0	0	$6e-05$	0

Total Utilization Factor = $6e-05$

R_t	R_e	R_c	R_b
0	0	0.6	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000112	0

D_t	D_e	D_c	D_b
0	0	0.623	0

U_t	U_e	U_c	U_b
0	0	$6.96e-05$	0

Total Utilization Factor = $6.96e-05$

R_t	R_e	R_c	R_b
0	0	0.623	0

2.28 Actuator 244

This element finished the simulation at simulation time: 2698941.130008.

2.28.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.6	0

2.28.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.6	0

U_t	U_e	U_c	U_b
0	0	$6e-05$	0

Total Utilization Factor = $6e-05$

R_t	R_e	R_c	R_b
0	0	0.6	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000108	0

D_t	D_e	D_c	D_b
0	0	0.606	0

U_t	U_e	U_c	U_b
0	0	$6.53e-05$	0

Total Utilization Factor = $6.53e-05$

R_t	R_e	R_c	R_b
0	0	0.606	0

2.29 Actuator 258

This element finished the simulation at simulation time: 2699733.620417.

2.29.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.6	0

2.29.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.6	0

U_t	U_e	U_c	U_b
0	0	$6e-05$	0

Total Utilization Factor = $6e-05$

R_t	R_e	R_c	R_b
0	0	0.6	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000101	0

D_t	D_e	D_c	D_b
0	0	0.658	0

U_t	U_e	U_c	U_b
0	0	$6.62e-05$	0

Total Utilization Factor = $6.62e-05$

R_t	R_e	R_c	R_b
0	0	0.658	0

2.30 Actuator 265

This element finished the simulation at simulation time: 2699432.20056.

2.30.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.6	0

2.30.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.6	0

U_t	U_e	U_c	U_b
0	0	$6e-05$	0

Total Utilization Factor = $6e-05$

R_t	R_e	R_c	R_b
0	0	0.6	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000102	0

D_t	D_e	D_c	D_b
0	0	0.633	0

U_t	U_e	U_c	U_b
0	0	$6.49e-05$	0

Total Utilization Factor = $6.49e-05$

R_t	R_e	R_c	R_b
0	0	0.633	0

2.31 Actuator 286

This element finished the simulation at simulation time: 2695559.701738.

2.31.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.6	0

2.31.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.6	0

U_t	U_e	U_c	U_b
0	0	$6e-05$	0

Total Utilization Factor = $6e-05$

R_t	R_e	R_c	R_b
0	0	0.6	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000102	0

D_t	D_e	D_c	D_b
0	0	0.625	0

U_t	U_e	U_c	U_b
0	0	$6.36e-05$	0

Total Utilization Factor = $6.36e-05$

R_t	R_e	R_c	R_b
0	0	0.625	0

2.32 Actuator 307

This element finished the simulation at simulation time: 2697134.430382.

2.32.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.6	0

2.32.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.6	0

U_t	U_e	U_c	U_b
0	0	$6e-05$	0

Total Utilization Factor = $6e-05$

R_t	R_e	R_c	R_b
0	0	0.6	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000108	0

D_t	D_e	D_c	D_b
0	0	0.602	0

U_t	U_e	U_c	U_b
0	0	$6.5e-05$	0

Total Utilization Factor = $6.5e-05$

R_t	R_e	R_c	R_b
0	0	0.602	0

2.33 Actuator 328

This element finished the simulation at simulation time: 2699247.916824.

2.33.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.6	0

2.33.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.6	0

U_t	U_e	U_c	U_b
0	0	$6e-05$	0

Total Utilization Factor = $6e-05$

R_t	R_e	R_c	R_b
0	0	0.6	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000116	0

D_t	D_e	D_c	D_b
0	0	0.563	0

U_t	U_e	U_c	U_b
0	0	$6.54e-05$	0

Total Utilization Factor = $6.54e-05$

R_t	R_e	R_c	R_b
0	0	0.563	0

2.34 Lan IN 338

This element finished the simulation at simulation time: 2699662.713355.

This LAN has its computed parameters λ , utilization factor, service demand and response time similar by 20.0% to these other nodes: **339; 340; 341; 342; 343; 344; 345; 346; 347; 348; 349; 350; 351; 354; 357; 360; 361; 362; 364; 365; 366; 367; 368; 369; 370; 371; 372; 373; 374; 375;**

2.34.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.1	0

2.34.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.1	0

U_t	U_e	U_c	U_b
0	0	$1e-05$	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	$8.73e-05$	0

D_t	D_e	D_c	D_b
0	0	0.103	0

U_t	U_e	U_c	U_b
0	0	$9.03e-06$	0

Total Utilization Factor = $1e-05$

Total Utilization Factor = $9.03e-06$

R_t	R_e	R_c	R_b
0	0	0.1	0

R_t	R_e	R_c	R_b
0	0	0.103	0

2.35 Lan OUT 338

2.35.1 Given parameters

S_t	S_e	S_c	S_b
0.2	0.2	0	0

2.35.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0	0

D_t	D_e	D_c	D_b
0.2	0.2	0	0

U_t	U_e	U_c	U_b
0.0002	0.0002	0	0

Total Utilization Factor = 0.0004

R_t	R_e	R_c	R_b
0.2	0.2	0	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.00101	0.00102	0	0

D_t	D_e	D_c	D_b
0.195	0.203	0	0

U_t	U_e	U_c	U_b
0.000197	0.000206	0	0

Total Utilization Factor = 0.000403

R_t	R_e	R_c	R_b
0.195	0.203	0	0

2.36 Lan IN 352

This element finished the simulation at simulation time: 2700322.474525.

2.36.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.1	0

2.36.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.1	0

U_t	U_e	U_c	U_b
0	0	$1e-05$	0

Total Utilization Factor = $1e-05$

R_t	R_e	R_c	R_b
0	0	0.1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.00011	0

D_t	D_e	D_c	D_b
0	0	0.0982	0

U_t	U_e	U_c	U_b
0	0	$1.09e-05$	0

Total Utilization Factor = $1.09e-05$

R_t	R_e	R_c	R_b
0	0	0.0982	0

2.37 Lan OUT 352

2.37.1 Given parameters

S_t	S_e	S_c	S_b
0.2	0.2	0	0

2.37.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0	0

D_t	D_e	D_c	D_b
0.2	0.2	0	0

U_t	U_e	U_c	U_b
0.0002	0.0002	0	0

Total Utilization Factor = 0.0004

R_t	R_e	R_c	R_b
0.2	0.2	0	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.00102	0.000992	0	0

D_t	D_e	D_c	D_b
0.199	0.196	0	0

U_t	U_e	U_c	U_b
0.000204	0.000194	0	0

Total Utilization Factor = 0.000398

R_t	R_e	R_c	R_b
0.199	0.196	0	0

2.38 Lan IN 353

This element finished the simulation at simulation time: 2699307.057919.

2.38.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.1	0

2.38.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.1	0

U_t	U_e	U_c	U_b
0	0	$1e-05$	0

Total Utilization Factor = $1e-05$

R_t	R_e	R_c	R_b
0	0	0.1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000105	0

D_t	D_e	D_c	D_b
0	0	0.108	0

U_t	U_e	U_c	U_b
0	0	$1.13e-05$	0

Total Utilization Factor = $1.13e-05$

R_t	R_e	R_c	R_b
0	0	0.108	0

2.39 Lan OUT 353

2.39.1 Given parameters

S_t	S_e	S_c	S_b
0.2	0.2	0	0

2.39.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0	0

D_t	D_e	D_c	D_b
0.2	0.2	0	0

U_t	U_e	U_c	U_b
0.0002	0.0002	0	0

Total Utilization Factor = 0.0004

R_t	R_e	R_c	R_b
0.2	0.2	0	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.000999	0.000999	0	0

D_t	D_e	D_c	D_b
0.2	0.195	0	0

U_t	U_e	U_c	U_b
0.0002	0.000195	0	0

Total Utilization Factor = 0.000395

R_t	R_e	R_c	R_b
0.2	0.195	0	0

2.40 Lan IN 355

This element finished the simulation at simulation time: 2700314.882657.

2.40.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.1	0

2.40.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.1	0

U_t	U_e	U_c	U_b
0	0	$1e-05$	0

Total Utilization Factor = $1e-05$

R_t	R_e	R_c	R_b
0	0	0.1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.00011	0

D_t	D_e	D_c	D_b
0	0	0.104	0

U_t	U_e	U_c	U_b
0	0	$1.14e-05$	0

Total Utilization Factor = $1.14e-05$

R_t	R_e	R_c	R_b
0	0	0.104	0

2.41 Lan OUT 355

2.41.1 Given parameters

S_t	S_e	S_c	S_b
0.2	0.2	0	0

2.41.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0	0

D_t	D_e	D_c	D_b
0.2	0.2	0	0

U_t	U_e	U_c	U_b
0.0002	0.0002	0	0

Total Utilization Factor = 0.0004

R_t	R_e	R_c	R_b
0.2	0.2	0	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.000989	0.00101	0	0

D_t	D_e	D_c	D_b
0.205	0.2	0	0

U_t	U_e	U_c	U_b
0.000203	0.000202	0	0

Total Utilization Factor = 0.000405

R_t	R_e	R_c	R_b
0.206	0.2	0	0

2.42 Lan IN 356

This element finished the simulation at simulation time: 2700408.705064.

2.42.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.1	0

2.42.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.1	0

U_t	U_e	U_c	U_b
0	0	$1e-05$	0

Total Utilization Factor = $1e-05$

R_t	R_e	R_c	R_b
0	0	0.1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000109	0

D_t	D_e	D_c	D_b
0	0	0.107	0

U_t	U_e	U_c	U_b
0	0	$1.17e-05$	0

Total Utilization Factor = $1.17e-05$

R_t	R_e	R_c	R_b
0	0	0.107	0

2.43 Lan OUT 356

2.43.1 Given parameters

S_t	S_e	S_c	S_b
0.2	0.2	0	0

2.43.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0	0

D_t	D_e	D_c	D_b
0.2	0.2	0	0

U_t	U_e	U_c	U_b
0.0002	0.0002	0	0

Total Utilization Factor = 0.0004

R_t	R_e	R_c	R_b
0.2	0.2	0	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.00098	0.00103	0	0

D_t	D_e	D_c	D_b
0.204	0.2	0	0

U_t	U_e	U_c	U_b
0.0002	0.000205	0	0

Total Utilization Factor = 0.000405

R_t	R_e	R_c	R_b
0.204	0.2	0	0

2.44 Lan IN 358

This element finished the simulation at simulation time: 2699418.767401.

2.44.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.1	0

2.44.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.1	0

U_t	U_e	U_c	U_b
0	0	$1e-05$	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	$9.72e-05$	0

D_t	D_e	D_c	D_b
0	0	0.0857	0

U_t	U_e	U_c	U_b
0	0	$8.33e-06$	0

Total Utilization Factor = $1e-05$ Total Utilization Factor = $8.33e-06$

R_t	R_e	R_c	R_b
0	0	0.1	0

R_t	R_e	R_c	R_b
0	0	0.0857	0

2.45 Lan OUT 358

2.45.1 Given parameters

S_t	S_e	S_c	S_b
0.2	0.2	0	0

2.45.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0	0

D_t	D_e	D_c	D_b
0.2	0.2	0	0

U_t	U_e	U_c	U_b
0.0002	0.0002	0	0

Total Utilization Factor = 0.0004

R_t	R_e	R_c	R_b
0.2	0.2	0	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.000987	0.000981	0	0

D_t	D_e	D_c	D_b
0.209	0.203	0	0

U_t	U_e	U_c	U_b
0.000206	0.000199	0	0

Total Utilization Factor = 0.000405

R_t	R_e	R_c	R_b
0.209	0.203	0	0

2.46 Lan IN 359

This element finished the simulation at simulation time: 2700168.555381.

2.46.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.1	0

2.46.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.1	0

U_t	U_e	U_c	U_b
0	0	$1e-05$	0

Total Utilization Factor = $1e-05$

R_t	R_e	R_c	R_b
0	0	0.1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000106	0

D_t	D_e	D_c	D_b
0	0	0.115	0

U_t	U_e	U_c	U_b
0	0	$1.23e-05$	0

Total Utilization Factor = $1.23e-05$

R_t	R_e	R_c	R_b
0	0	0.115	0

2.47 Lan OUT 359

2.47.1 Given parameters

S_t	S_e	S_c	S_b
0.2	0.2	0	0

2.47.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0	0

D_t	D_e	D_c	D_b
0.2	0.2	0	0

U_t	U_e	U_c	U_b
0.0002	0.0002	0	0

Total Utilization Factor = 0.0004

R_t	R_e	R_c	R_b
0.2	0.2	0	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.00101	0.00101	0	0

D_t	D_e	D_c	D_b
0.203	0.198	0	0

U_t	U_e	U_c	U_b
0.000205	0.0002	0	0

Total Utilization Factor = 0.000405

R_t	R_e	R_c	R_b
0.203	0.199	0	0

2.48 Lan IN 363

This element finished the simulation at simulation time: 2700290.52389.

2.48.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.1	0

2.48.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.1	0

U_t	U_e	U_c	U_b
0	0	$1e-05$	0

Total Utilization Factor = $1e-05$

R_t	R_e	R_c	R_b
0	0	0.1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000112	0

D_t	D_e	D_c	D_b
0	0	0.1	0

U_t	U_e	U_c	U_b
0	0	$1.12e-05$	0

Total Utilization Factor = $1.12e-05$

R_t	R_e	R_c	R_b
0	0	0.1	0

2.49 Lan OUT 363

2.49.1 Given parameters

S_t	S_e	S_c	S_b
0.2	0.2	0	0

2.49.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0	0

D_t	D_e	D_c	D_b
0.2	0.2	0	0

U_t	U_e	U_c	U_b
0.0002	0.0002	0	0

Total Utilization Factor = 0.0004

R_t	R_e	R_c	R_b
0.2	0.2	0	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.00101	0.00097	0	0

D_t	D_e	D_c	D_b
0.196	0.202	0	0

U_t	U_e	U_c	U_b
0.000199	0.000196	0	0

Total Utilization Factor = 0.000395

R_t	R_e	R_c	R_b
0.196	0.202	0	0

2.50 Lan IN 376

This element finished the simulation at simulation time: 2699367.778142.

2.50.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.1	0

2.50.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.1	0

U_t	U_e	U_c	U_b
0	0	$1e-05$	0

Total Utilization Factor = $1e-05$

R_t	R_e	R_c	R_b
0	0	0.1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000108	0

D_t	D_e	D_c	D_b
0	0	0.108	0

U_t	U_e	U_c	U_b
0	0	$1.17e-05$	0

Total Utilization Factor = $1.17e-05$

R_t	R_e	R_c	R_b
0	0	0.108	0

2.51 Lan OUT 376

2.51.1 Given parameters

S_t	S_e	S_c	S_b
0.2	0.2	0	0

2.51.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0	0

D_t	D_e	D_c	D_b
0.2	0.2	0	0

U_t	U_e	U_c	U_b
0.0002	0.0002	0	0

Total Utilization Factor = 0.0004

R_t	R_e	R_c	R_b
0.2	0.2	0	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.00101	0.000995	0	0

D_t	D_e	D_c	D_b
0.209	0.2	0	0

U_t	U_e	U_c	U_b
0.00021	0.000199	0	0

Total Utilization Factor = 0.000409

R_t	R_e	R_c	R_b
0.209	0.2	0	0

2.52 Lan IN 377

This element finished the simulation at simulation time: 2699248.040082.

2.52.1 Given parameters

S_t	S_e	S_c	S_b
0	0	0.1	0

2.52.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0	0	0.0001	0

D_t	D_e	D_c	D_b
0	0	0.1	0

U_t	U_e	U_c	U_b
0	0	$1e-05$	0

Total Utilization Factor = $1e-05$

R_t	R_e	R_c	R_b
0	0	0.1	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0	0	0.000116	0

D_t	D_e	D_c	D_b
0	0	0.102	0

U_t	U_e	U_c	U_b
0	0	$1.19e-05$	0

Total Utilization Factor = $1.19e-05$

R_t	R_e	R_c	R_b
0	0	0.102	0

2.53 Lan OUT 377

2.53.1 Given parameters

S_t	S_e	S_c	S_b
0.2	0.2	0	0

2.53.2 Computed parameters

Analytical Model

λ_t	λ_e	λ_c	λ_b
0.001	0.001	0	0

D_t	D_e	D_c	D_b
0.2	0.2	0	0

U_t	U_e	U_c	U_b
0.0002	0.0002	0	0

Total Utilization Factor = 0.0004

R_t	R_e	R_c	R_b
0.2	0.2	0	0

Simulated Model

λ_t	λ_e	λ_c	λ_b
0.000989	0.000991	0	0

D_t	D_e	D_c	D_b
0.192	0.195	0	0

U_t	U_e	U_c	U_b
0.00019	0.000193	0	0

Total Utilization Factor = 0.000383

R_t	R_e	R_c	R_b
0.192	0.195	0	0