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D:\ATM simulation\E-banking simulation\Debug\E-banking simulation.exe
#####
#          PROGRAMMER ADDISALEM .T          #
#          ID GSR/2216/07                    #
#          DEPT ECE STREAM COMPUTER ENGINEERING      #
#          ASSIGNMENT FOR SIMULATION AND MODELING      #
#          This is E-banking simulation              #
#####

This is interArrival time Generated by Eponential distribution

4      11      7      7      29      22      3      0      13      12
0      6      0      24      2      5      14      4      33      40
22     10     10     22     13     0      0      4      8      9
6      0      14     7      2      2      3      26     1      28
7      4      24     12     17     4      2      1      11     54
0      21     11     12     0      5      1      0      10     14
12     11     1      19     0      8      0      4      2      0
0      41     12     19     13     6      17     2      22     20
3      3      9      4      19     9      8      0      1      2
2      14     15     5      9      8      3      18     6      3
total time 983

This is service Type Generated by uniform distribution based on probabilty

1      4      2      4      4      4      3      3      2      5
3      5      4      3      4      1      5      3      4      2
4      3      2      3      2      2      3      3      4      2
2      2      3      3      3      5      5      5      1      5
1      4      5      4      5      5      4      3      4      5
4      4      5      5      4      1      3      2      5      3
4      1      2      3      2      1      2      5      4      1
1      4      4      5      2      1      3      3      2      5
3      5      5      3      5      5      5      5      5      5
5      5      5      5      5      5      5      5      5      5

To be clear the probability of eah service from 100 customer
AI has probablity of 0.10 so <10> customer are for AI
US has probablity of 0.15 so <15> customer are for US
UD has probablity of 0.20 so <20> customer are for UD
UW has probablity of 0.20 so <20> customer are for UW
UR has probablity of 0.35 so <35> customer are for UR
6 intially served at Node 1 server 1 service type is AI
11 intially served at Node 1 server 2 service type is UD
15 intially served at Node 2 server 1 service type is US
15 intially served at Node 2 server 2 service type is UD

Service Time for Each Requests
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# Service Time for Each Requests

4	11	15	15	9	12	8	4	0	16
8	35	9	5	9	6	20	7	12	0
10	8	0	4	21	0	7	7	15	0
0	24	19	12	7	24	17	44	5	23
8	9	36	8	28	35	11	8	11	30
15	14	16	30	10	8	8	0	17	6
13	6	0	8	24	4	0	23	13	6
13	16	11	17	0	12	4	7	0	26
6	22	44	5	18	23	22	23	32	27
35	27	25	39	29	22	20	33	21	20

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This is Total Customer served in NODE 1 Sever 11  
8 customers Requests for AI  
12 customers Requests for US  
21 total customer served

6	10	25	36	42	53	67	79	92	108
113	121	129	139	145	157	161	177	183	201
216									

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This is Total Customer served in NODE 1 Sever 12  
2 customers Requests for UD  
11 customers Requests for UW  
11 customers Requests for UR  
35 total customer served

11	22	31	47	56	65	85	95	114	126
143	166	175	183	211	222	233	263	279	289
306	329	340	357	379	397	420	443	470	497
522	551	571	592	612					

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This is Total Customer served in NODE 2 Sever 21  
2 customers Requests for AI  
3 customers Requests for US  
18 customers Requests for UD  
24 total customer served

15	23	27	35	40	47	55	59	80	87
94	118	125	133	141	147	155	179	192	204
208	215	221	226						

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This is Total Customer served in NODE 2 Sever 22  
 9 customers Requests for UW  
 14 customers Requests for UR  
 24 total customer served

15	30	42	77	89	104	128	172	208	243
258	272	302	315	328	344	370	414	436	468
503	542	564	597						

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 Total served for AI 10  
 Total served for US 15  
 Total served for UD 20  
 Total served for UW 20  
 Total served for UR 35  
 Total customer served in all server 100

Number of customer that are not served 0

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 Server process utilizations  
 Server utilization is for Node 1 SERVER 11 is 21%  
 Server utilization is for Node 1 SERVER 12 is 62%  
 Server utilization is for Node 2 SERVER 21 is 22%  
 Server utilization is for Node 2 SERVER 22 is 60%  
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 Transmission network utilization  
 Transmission network utilization for Node 1 39.879%  
 Transmission network utilization for Node 2 34.0834%  
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 Average response time for each service request type  
 Average response time for AI 7 MINUTE  
 Average response time for US 15 MINUTE  
 Average response time for UD 7 MINUTE  
 Average response time for UW 12 MINUTE  
 Average response time for UR 26 MINUTE  
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 Average delay at server process queues  
 Average delay at server process queue for Node 1 SERVER 11 is 0 MINUTE  
 Average delay at server process queue for Node 1 SERVER 12 is 0 MINUTE  
 Average delay at server process queue for Node 2 SERVER 21 is 0 MINUTE  
 Average delay at server process queue for Node 2 SERVER 22 is 0 MINUTE  
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Press any key to continue . . .