GROUP DETAILS::

NAME   GATORID   UFID

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We have tried to implement the following logic:

1.We tried to kill or terminate a random node and the message delivered to that specific node results in dead letter and consequently the connection dies temporarily.

2.When particular node is terminated beyond certain time limit then the pastry node connected to that node also dies hence resulting in permanent failure of the model.

3. The model is resilient in a way that whenever a node dies permanently, then the message is rerouted to another live node and the connection is tried to being set up again. The dead node is replaced with another node to keep the connection up and running.

The testing was done for following input data:

Number of nodes: 500

Number of requests:10

The output is as follows:

========================The failure node propagation start below=================

  (84c498e3) <-> (8506c429) connection is terminated permanently

PastryNode 93a0df20 receives the message Count 1   and the count of Path null Hops is: 0

PastryNode edd92075 receives the message Count 7   and the count of Path c018719d+c40e3760 Hops is: 2

PastryNode 9a5b838e receives the message Count 9   and the count of Path 30499ebc Hops is: 1

PastryNode 1525df6d receives the message Count 4   and the count of Path 15f35d84 Hops is: 1

PastryNode 1525df6d receives the message Count 10   and the count of Path 15f35d84 Hops is: 1

PastryNode c018719d receives the message Count 8 and the count of Path null Hops is: 0

PastryNode 260123d7 receives the message Count 6 Hops is: 2 and the count of Path 1033afcb+1525df6d

PastryNode efd72ef1 receives the message Count 6 Hops is: 1 and the count of Path 1033afcb

PastryNode 99a97df9 receives the message Count 1 Hops is: 1 and the count of Path 93a0df20

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PastryNode 3714082d receives the message Count 8 902a6a5d+913b233f+91ebd54e Hops is: 3 and the count of Path

PastryNode ee87429a receives the message Count 3 Hops is: 2 and the count of Path 1033afcb+1b19d641

PastryNode ee87429a receives the message Count 4 Hops is: 2 and the count of Path 1033afcb+14ee1b37

PastryNode 9b90b273 receives the message Count 7 30499ebc+3f033a23+405d543b Hops is: 3 and the count of Path

PastryNode 405d543b receives the message Count 3 Hops is: 2 and the count of Path d0eb5ccb+d4e61067

PastryNode 72d86a7e receives the message Count 8 60e3848c+6b786dbc+6bcd13a1 Hops is: 3 and the count of Path

PastryNode 72d86a7e receives the message Count 10 60e3848c+6c05f3a0+6cef10a2 Hops is: 3 and the count of Path

PastryNode 803e83d6 receives the message Count 10 Hops is: 2 and the count of Path c018719d+cd350b6c

PastryNode 218be40f receives the message Count 7 902a6a5d+9cd78a66+9bfd63e7 Hops is: 3 and the count of Path

PastryNode 218be40f receives the message Count 5 60e3848c+6d49108f+6d7dd20f Hops is: 3 and the count of Path

PastryNode 79b668fa receives the message Count 4   and the count of Path 60e3848c+6c05f3a0+6c84bc25 Hops is: 3

PastryNode 955b21d5 receives the message Count 7   and the count of Path f09d9747+f28399bc Hops is: 2

PastryNode 7f9f725b receives the message Count 4   and the count of Path f09d9747+f7657c47 Hops is: 2

The nodeid (902a6a5d) temporarily terminates which is Connected to nodeid (955b21d5)

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PastryNode 0b49e03e receives the message Count 6   and the count of Path f09d9747+f28399bc Hops is: 2

PastryNode 0b49e03e receives the message Count 10   and the count of Path f09d9747+f28399bc Hops is: 2

PastryNode f485675a receives the message Count 1   and the count of Path 1033afcb+192240a6+19b71357 Hops is: 3

PastryNode 20975867 receives the message Count 2   and the count of Path a00c3a92+a4416c3f Hops is: 2

PastryNode 507de605 receives the message Count 5   and the count of Path a00c3a92+af785a4b Hops is: 2

PastryNode 1033afcb receives the message Count 7   and the count of Path 60e3848c+658d336b Hops is: 2

The nodeid (902a6a5d) permanently terminates which is Connected to nodeid (955b21d5) !

so now utilise (95876038) and replace the nodeid: 955b21d5