COP 5615

Project 2

Submitted By:

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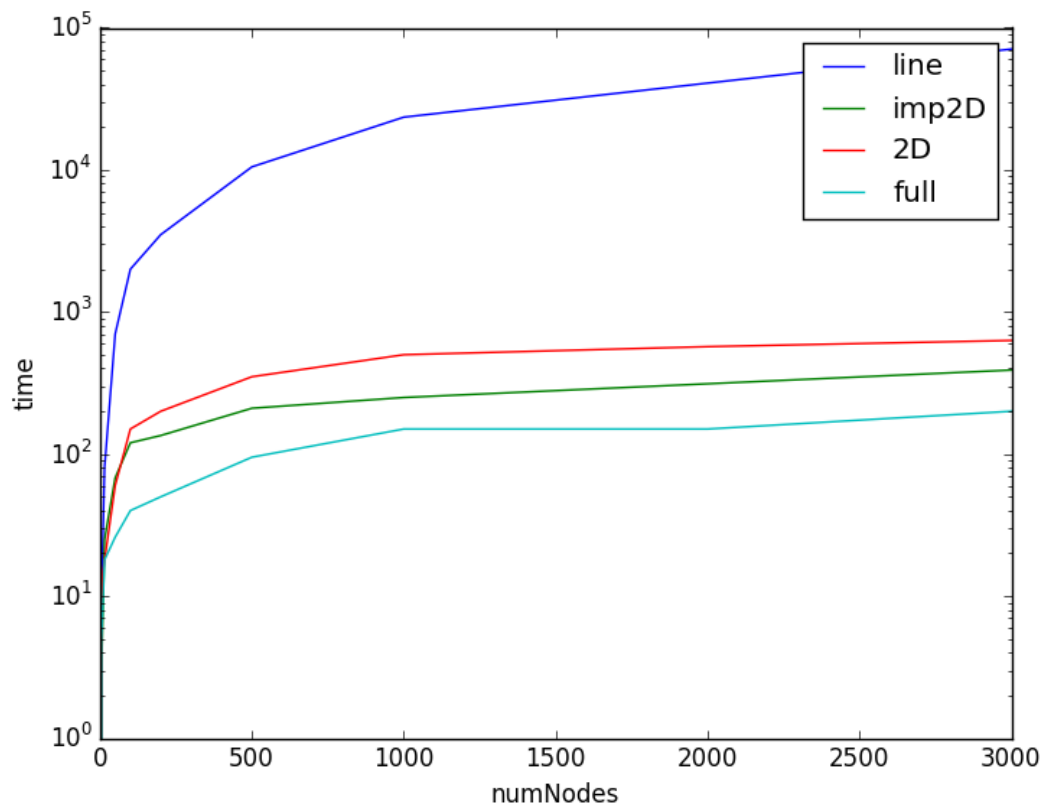
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Largest network

1. For gossip - :
   a. Full: 4000
   b. 2D: 100,000
   c. Imp2D: 100,000
   d. Line: 10,000
2. For push-sum-:
   a. Full: 3000
   b. 2D: 1000
   c. Imp2D: 3000
   d. Line: 100

Implementation

From the plots, it is clear that full topology gives the best convergence time. Then comes imperfect grid, grid and line respectively. All convergence times are in O(logN).

Building the topology takes most time for full network and least for line. Imperfect 2D lies in between these two, for both time taken to construct topology and time for convergence. Hence, imperfect 2D would be the best topology for gossip if constructing the topology is a constraint.

Gossip -:

Push Sum- :