Number of nodes at the max the simulator managed to run:

|  |  |  |
| --- | --- | --- |
|  | **Gossip** | **Pushsum** |
| **Line** | 7000 | 5000 |
| **Full** | 69000 | 55000 |
| **3D** | 5500 | 4200 |
| **Imperfect 3D** | 50000 | 60000 |

A graph with a line

Description automatically generated

A graph with different colored lines

Description automatically generated

Findings:

**Gossip algorithm:**

* Line topology takes the longest time to converge nodes than any other topology. Imperfect 3D and 3D almost took the same time.
* Full network topology works faster among all four topologies.

**Push Sum algorithm:**

* Push Sum algorithm takes more time than Gossip algorithm.
* Full network topology works faster among all four topologies.
* Line topology takes the longest time to converge nodes on higher number of nodes otherwise it takes almost similar time if compared to 3D and Imperfect 3D.
* Imperfect 3D and 3D almost took the same time to converge nodes.