There are scenarios like hardware upgrade, rack upgrade, etc., where some machines may need to be taken offline. After the work is done, these machines are brought back online. It may be desirable to not trigger a large scale data distribution while the machines are offline. FoundationDB has a maintenance mode where the user can notify the database that a particular zone is going for maintenance and not trigger data distribution due to offline machines in that particular zone.

fdbcli tool has a command to initiate maintenance mode

fdb> help maintenance

maintenance [on|off] [ZONEID] [SECONDS]

Mark a zone for maintenance.

Calling this command with on prevents data distribution from moving data away from the processes with the specified ZONEID. Data distribution will automatically be turned back on for ZONEID after the specified SECONDS have elapsed, or after a storage server with a different ZONEID fails. Only one ZONEID can be marked for maintenance. Calling this command with no arguments will display any ongoing maintenance. Calling this command with off will disable maintenance.

The user has to be careful to offline machines only on the particular zone that the maintenance mode is initiated for, otherwise data distribution can get triggered. Once the offline machines are brought online, the storage servers will begin to catch up.