

SYSTEM AND METHOD FOR SCHEDULING AND ALLOCATING DATA STORAGE

ABSTRACT

A system and method is disclosed for scheduling and allocating data storage. An example method comprises generating a scheduling problem based at least on states of each of the plurality of storage nodes, a received plurality of storage tasks and received constraints, wherein the scheduling problem is a constraint satisfaction problem, selecting one or more approaches to solving the scheduling problem based on metadata associated with the storage tasks and constraints, solving the scheduling problem to generate a scheduling solution based on the one or more approaches, determining whether the given constraints are satisfied by the scheduling solution, executing, by the processor, the scheduling solution by assigning storage of data to each of the plurality of storage nodes when the constraints are satisfied by the scheduling solution and determining another scheduling solution based on the one or more approaches when the constraints are not satisfied by the scheduling solution.

Figure 1