Design

Infrastructure Enhancements:

Infrastructure is improved by ameliorating communication latencies and utilizing multi threading features.

MultiThreading:

Every computer runs the number of threads equal to the number of cores available in the machine.

Ameliorating Communication Latencies:

(i) Communication latencies are ameliorated by executing compose tasks within the space using a separate thread known as SpaceExecutor thread.

(ii) Communication between space and computers is ameliorated by implementing ComputerProxies which will asynchronously grabs the task from the space and adds it to the computers. It will not wait for the results immediately.

(iii) Within each computer ready tasks are queued by computerproxy. Worket threads then takes the task and executes in parallel. Some workers might be sending the results back to the space. Even that time is ameliorated by using a separate thread for putting the results back into the space. This tremendously increases efficiency.

Infrastructure: