Designing and implementation issues in DSM system

1. Granularity

When a nonlocal memory word is referenced, a chuck of memory containing the word is fetched from its current location and put on the machine making the reference. An imported design issue is how big should the chuck be? A word, block, page or segment(multiple page).

2. Structure of shared memory space

It is layout of the shared data in memory. It is normally dependent on the type of application that the DSM system intended to support.

3. Data location and access

To share data in a DSM system , it should be possible to locate and retrieve the data accesses by a user process.

4. Replacement strategy

Data block of the local memory must be replaced by a new data block.

5. Thrashing

Data blocks migrate between nodes on demand.