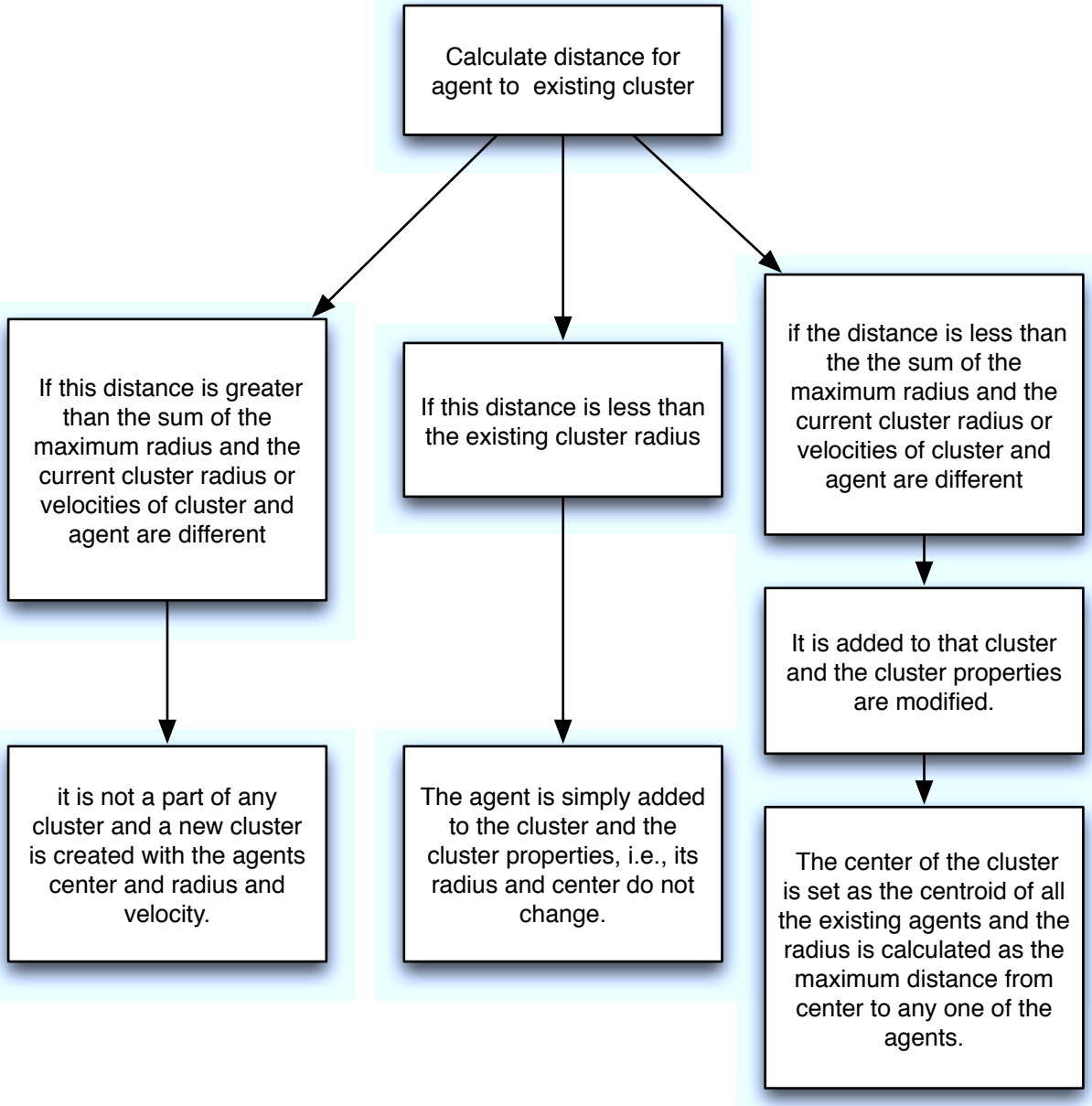
Calculate distance for agent to existing cluster
If this distance is greater than the sum of the maximum radius and the current cluster radius or velocities of cluster and agent are different
it is not a part of any cluster and a new cluster is created with the agents center and radius and velocity.
If this distance is less than the existing cluster radius
The agent is simply added to the cluster and the cluster properties, i.e., its radius and center do not change.
if the distance is less than the the sum of the maximum radius and the current cluster radius or velocities of cluster and agent are different
It is added to that cluster and the cluster properties are modified.
The center of the cluster is set as the centroid of all the existing agents and the radius is calculated as the maximum distance from center to any one of the agents.