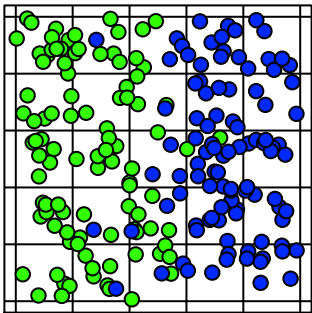less centralized   more centralized