LanServe Corporation (B)

LanServe Corporation builds low-range to midrange servers, which are computers that manage electronic network operations including file sharing, print sharing and internal communications. An introduction to the company and its current quality and throughput challenges appears in the LanServe Corporation (A) case. There, it is revealed that management is considering some alternative options for assembly information and quality control.

Each of LanServe's two lines is currently meeting its average demand of 97 units per day with little trouble, since the theoretical capacity of each line is 120 units per day and rework is performed off-line. However, as low-end processors gain in power, the lower end of the server market is expected to grow faster than, and steal some demand from, the higher end. Marketing anticipates as much as a 25 percent increase in demand over the next three years, which would strain current capacity. It is also likely that demand will remain volatile, product variety will remain high, and product life cycles will continue to decline.

LanServe builds servers to customer specifications, and responds as rapidly as possible to new orders. As soon as orders are processed by sales, a job ticket is placed in queue for assembly. LanServe keeps a large inventory of components and draws on these to assemble the servers. Servers passing final inspection are packed and shipped directly to the customer. LanServe intends to continue this build-to-order practice so that there are no real scheduling alternatives to consider.

Several successful high-volume computer assemblers have redesigned their production processes around manufacturing cells. In these, long serial lines of workstations are broken up into several parallel lines, each staffed by fewer people, who work as a team to assemble and test a complete server from beginning to end. The skill level of workers in each cell must be higher, since they handle all of the jobs, and tooling must be replicated for each cell. However, a cellular layout has some advantages that can favor it in certain contexts.

Several changes have been made since the LanServe Corporation(A) case was written. LanServe hired a sufficient number of designers and technical writers so that every worker can get complete and accurate assembly information on a monitor by his or her workstation. Also, mid-line and end-of-line testing stations have been automated to the point that no special skill is required to conduct tests and no separate “test tech” job description now exists. As a result, these stations can be treated just like...