

HW 12

12.6 Average response time:

C-SCAN will have a higher average response time as it does not service request as it reverses direction.

Variation in response time:

The variance for SCAN is more than for C-SCAN algorithm. Because the SCAN algorithm examines the edge tracks once for two examinations of the inside tracks and the time intervals between successive visits of a given track tend to have a greater variance.

Effective Bandwidth:

The effective bandwidth is the total number of bytes transferred, divided by the total time between the first and the last request. Thus, bandwidth for the C-SCAN will be slightly higher.

In summary, C-SCAN has a higher average response time, lower variance and lower bandwidth as compared to SCAN.