

Avoiding head-of-line blocking in wormhole routed networks by central buffering

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Abstract:

This paper focuses on the problem of head-of-line blocking in wormhole routed networks, such as the IEEE 1355. It is well known that the STC104 router only achieves about 60% performance owing to head-of-line blocking. The simulation results presented indicate that the head-of-line blocking problem of the routers may effectively be reduced by introducing central buffering. Both the buffer size and how to allocate buffer space to the input links have severe impact on the performance.