This work deals with specific type of routing, created for directing long messages. The goal is to determine optimal settings for this routing by simulation. Part of the work is a design of a network node of a network for routing long messages, in VHDL language, this design is simulated for determining its performance. Another path is a simulation program for performance testing of various settings of this routing. By this program, optimal settings are determined for a network composed of the designed nodes, primarily for latency and network throughput. These settings are then implemented in the simulation program.