

ABSTRACT

BUFFER MEMORY MANAGEMENT FOR A COMPUTER NETWORK NODE

A method and apparatus to optimize buffer memory management in a computer system communications resource. The present invention decreases the time for receiving data from and transmitting data to a network by providing for receipt and transmittal of a data packet, prior to the data packet being in a communications resource buffer memory. Consequently, data spends less time in the communication resource buffer memory. This allows a communications resource to handle more data without increasing the size of its buffer memory and to increase the effective data transfer rate. The present invention provides a means for: 1) starting the transmission of data into the network before all data has been transferred to buffer memory in the communications resource, 2) beginning the transfer of data from the buffer memory of the communications resource before the complete data packet has been received and stored in buffer memory, and 3) error checking to insure data integrity.

15

(Figure 2)