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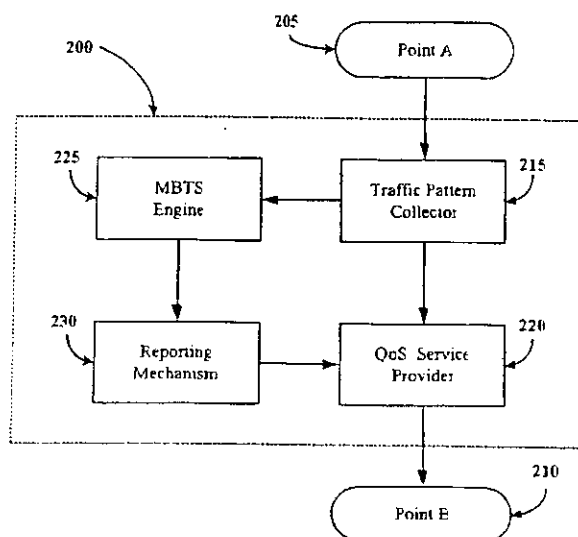
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(54) Title: TOKEN BUCKET PARAMETERS COMPUTATION FOR GUARANTEED SERVICES IN A DATA NETWORK



(57) Abstract: According to an embodiment of the invention, a data controller comprises a traffic pattern collector to observe a data traffic pattern, the data traffic being comprised of data packets; a traffic service engine to receive data from the traffic controller concerning the data traffic pattern and to determine a data flow specification for the data traffic pattern, the received data including the size and arrival time of each of the data packets; and a quality of service provider to receive the data flow specification. The data flow specification is the minimum data flow specification data flow specification that will allow each of the data packets to be transferred by the traffic controller within a delay upper bound. According to one embodiment, the minimum data flow specification for the data traffic pattern is determined according to an algorithm known as the Any-Delay TB Algorithm.