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(57) **ABSTRACT**

A method for optimizing a predictive model for a group of nodes in a communications network includes receiving a tuples of data values, each tuple including state data representative of a state of a node, an action including a specification of paths for duplicating data packets from the node to a further node, and reward data that indicates a quality of service at the node subsequent to duplicating data packets through the paths specified by the action, determining a data value indicative of a performance level for the communications network on the basis of reward data of the tuples, evaluating a predictive model that outputs a set of data values for each node, the data values predicting a quality of service from duplicating data packets on the paths, and modifying the predictive model based on the predicted data values and the data value indicative of a performance level for the communications network.