

A method of fault-tolerant routing of multi-stream traffic with support of various schemes of reservation of network resources, which performs the protection of channel, site and route, there are set conditions for the implementation of one-path and multi-path routing, which is characterized in the fact that it is provided by the absence of overload of channels of communication with flows both for main and backup routes, due to the implementation of conditions preventing the overload of communication channels, which are modified to a given inequality. And at calculating the route variables in the course of solving the problem of fault-tolerant routing in telecommunication networks there is minimized the objective function, this makes it possible to prevent overloading of communication channels even if only some of the streams to switch from the main ways to backup.