rapid deployment of new services, meet strict quality of service requirements.

(4) The application of the object-oriented concept in the program implementation allows making the transformation techniques invariant to the way of a formal presentation of a system structural model.

Within the framework of the future study, we can present such ideas:

(1) Development of a generator of structural models with specified topological characteristics of large-scale network systems. This will allow evaluating the effectiveness of proposed technologies to solve various optimization problems associated with large networks.

(2) In various problems of managing complex network systems, time is a critical parameter. These problems include detecting bottlenecks, parallelism, as well as mutual exclusion, deadlocks etc. Therefore, the study of the application of equivalent multilevel topological transformations for these problems is an important task.

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