AGENT-ORIENTED SIMULATION OF COMPLEX SYSTEM BEHAVIOR IN INTERNET

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This paper presents the approach to investigation of complex system behavior in Internet. It is based on the agent-oriented simulation. These systems are supposed to be represented as the set of various interacting intelligent agent teams. The agents can be both in the state of antagonistic counteraction and cooperation. There was examined the general framework of antagonistic counteraction and cooperation of agent teams. The architecture of agent-oriented simulation environment is described. There is represented the implementation of simulation environment on the basis of discrete-event simulator that allowed to combine the agent-oriented simulation with Internet simulation on the various network protocol layers.