

Prognosis and Optimization of Homogeneous Markov Message Handling Networks .

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Abstract: Message handling systems with finitely many servers are mathematically described as homogeneous Markov networks. For hierarchic networks is found a recursive algorithm evaluating after finitely many steps all steady state parameters. Applications to optimization of the system design and management are discussed, as well as a program product 5P (Program for Prognosis of Performance Parameters and Problems) based on the presented theoretical conclusions. The theoretic achievements as well as the practical applicability of the program are illustrated on a hypermarket network with 34 servers at different locations of the Czech Republic.

Keywords:

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