

ABILITY FORECAST OF ATM SYSTEM WITH STANDBY REDUNDANT BANK COMPUTERS

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Abstract

In this model, the authors deal with the automated teller machine (ATM) system with standby redundant bank computers for evaluation of its ability measures. The system configuration has shown in figure-1. Since the system under consideration is of Non-Markovian nature, the authors have been used supplementary variable technique to convert this in Markovian. Flow of states has shown in figure-2. Difference differential equations of all the flow-states have been obtained and are solved by the aid of Laplace transform. Availability function, reliability function, M.T.T.F. has obtained. Long run states probabilities and a particular case have also mentioned to improve practical utility of the model. A numerical example together with its graphical representation has been appended in the last to highlight important results of the study.