Abstract

A customer centric e-Government system provides services through delivery channels and is being operated by internal users (designated functionaries for processing), whenever required. The customers could be citizen, employees, government users, business users, etc. This paper proposes Petri Nets (PN) as modeling language for Customer centric eGovernment system, which is modeled as Discrete event driven system. The graphical representation of PN describes dynamic behaviour of system. Petri Nets enable the visualization of the modeled system state changes. The process cycle can be expressed in terms of occurrence of events and conditions in a system. A simulation tool has been used to develop PN model for eGovernment systems and presented as illustration. The system types considered are Single
Function Single Processing Stage (SFSPS), Single Function Multiple Processing Stages (SFMPs) and Multi Functions Multiple Processing Stages (MFMPs). The model developed can be simulated to exhibit system behaviour without construction. The designers and system analysts can build necessary information system based on PN model with desired technology platforms.

References

- Andrea BOBBIO(1990), SYSTEM MODELLING WITH PETRI NETS, reprinted from: System reliability Assessment, Kluwer p. c., pp 102-143
- Merlin P and D. Farber (1976), recoverability of communication protocols – implication of a theoretical study, IEEE Transactions on Communications, pp. 1036-1043
- Y. Narahari, K. Suryanarayan and N. V. Subba Reddy(1989), DISCRETE EVENT SIMULATION OF DISTRIBUTED SYSTEMS USING STOCHASTIC PETRI NETS, CH2766-4/89/0000-0622, IEEE, pp. 31. 4. 1-31. 4. 4
- Jiacun Wang, Petri Nets for Dynamic Event-Driven System Modeling, Monmouth University, West Long Branch, NJ 07764
- Vijay Gehlot, Carmen Nigro (2010), AN INTRODUCTION TO SYSTEMS
- Dragan Gasevic, P3-Petri net tool, www.sfu.ca/~dgasevic/projects/P3net/, the GoodOldAI research group.

Index Terms

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Keywords

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