Internet Host Reliability Modeling with Time Petri Nets

Abstract

Understanding the reliability of components is important for modeling the reliability of a distributed system. Careful modeling allows the construction of highly fault-tolerant distributed data applications and less expensive. Petri nets have been extensively used in the modeling and analysis of concurrent and distributed systems. Particular importance of Petri nets are in the development of concurrent and distributed systems. One of the standard concepts of time-dependent Petri nets is the one, where each transition gets a continuous time interval, specifying the range of the transition’s reaction time. This extension of classical Petri nets is called Time Petri nets. In the internet the host is to obtain the data required to implement the functions of the Internet. In this paper, a method to model the internet host reliability with Time Petri nets is proposed.

References


Index Terms

Computer Science

Networks

Keywords

Petri Nets (pns)  Time Petri Nets (tpn)  Internet Host  Reliability  Distributed System (ds)