Modelling and Initial Analysis of the RMD-QOSM (Resource Management in DiffServ) Protocol using Coloured Petri Nets

Abstract

The NSIS (Next Steps In Signaling) working group within IETF has developed a new signaling framework. One of the purposes of this framework is to support quality of service provisioning. RMD-QOSM is the protocol that delivers quality of service to end users. RMD-QOSM protocol is a simple, effective and scalable resource reservation method that provides edge-to-edge communication in a Differentiated Services (DiffServ) domain. Main functions of RMD-QOSM are congestion control and admission control. The aim of this paper is to use Coloured Petri Nets to model some features of the protocol. Initial analysis refers to that a basic model is constructed using Coloured Petri Nets and its proper working is verified.

References

Modelling and Initial Analysis of the RMD-QOSM (Resource Management in DiffServ) Protocol using Coloured Petri Nets


Index Terms

Computer Science
Communications

Keywords

Quality of Service NSIS RMD-QOSM Formal Verification Coloured Petri Nets (CPN)
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