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## Cache Modelling in Distributed Systems

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**Objective**

Distributed Systems are large computing systems where independent computing nodes with redundant resources are interconnected and working towards a common goal by sharing their resources. Since Memory is one such essential and valuable resource in systems, its management in Distributed Systems has taken its new challenges. Cache is the memory built in to processor chips which needs to improves the system performance. Cache management in Distributed Systems is really a challenging task, as one needs to address various issues in Networks in addition to that of Cache management. We are in to research on how various Network Parameters will contribute in Cache Management in a typical Distributed System. We use NCTUNS Network simulator for organising and analysing the various types of network and study the impact of different network parameters while implementing Cache Modelling in Distributed Application.

**Publication :**


- Subrahmanya Bhat & Dr. K. R. Kamath, Effective Learning With Usage of Simulators – A Case of Nctuns Simulator In Computer Networks, International journal of Scientific Research and Modern Education, Volume I, Issue I, pp. 415-420 (June 2016) ISSN-2455 – 5630.

- Subrahmanya Bhat and Dr. K. R Kamath, Snoopy Protocol for Cache Coherency in Multi Core Systems for High Performance Computation, International Journal of Management, Volume 6, Issue 1, PP. 459-463 (January 2016) ISSN: 2249-0558.

- Subrahmanya Bhat & Dr. K. R. Kamath, Directory Based Cache Coherency Protocol In Multi-Core System For High Performance Computation,International Journal of Current Research and Modern Education (IJCRME) Volume I, Issue I, pp. 257-261, (May 2016), ISSN : 2455 – 5428.

- Subrahmanya Bhat B and Dr. K.R Kamath, Cache Hierarchy In Modern Processors And Its Impact On Computing,_ International Journal of Management, IT and Engineering (IJMIE), Volume 5, Issue 7, pp. 248-253, (July 2015), ISSN: 2249-0558, I.F. 5. 299.

- Subrahmanya Bhat & K. R. Kamath, Directory Organizations in Cache Coherency Systems for High Performance Computation, International Journal of Current Research and Modern Education (IJCRME), Volume I, Issue I, p.p 868-871, (August,2016), ISSN (Online): 2455 – 5428

**Working Papers:**

1. RouterSim – The CISCOs Network Simulator for Hands on Learning in Network Design
2. Application of Inter Networking Operating System (IOS) in Network Simulators for Network Design.
3. Evaluation Approach to measure Network Performance in Distributed Applications.
4. Impact of Bit Error Ration (BER) in Network Application
5. Performance evaluation using Log Files in NCTUNS simulator.