

ABSTRACT

To adapt new network protocols, standards and applications, today's router with General Purpose Processor, which using software rather than specialized hardware to handle incoming traffics, so technology updates can be done easily but can the system still guarantee high performance ?

Demand for flexible processing system make the system with general-purpose capabilities join to the data communication technologies. System-on-Chip technology make a system with multi-processor can be developed in a single ASIC

In this research system model optimization can be done with simple measurement with given workloads, where number of processor and cache size can be optimized, and how exact scheduling system can be increase system performance.