A Non-Monetary Mechanism for Optimal Rate Control Through Efficient Cost Allocation

ABSTRACT

- The proposed mechanism is based on efficient cost allocation, where the cost is in terms of non-monetary metric, such as average delay or request loss rate.
- Specifically, we present an efficient cost allocation rule for the server to determine the target cost of each client.
- We then propose an intelligent policy for the server to control the costs of the clients to achieve the efficient allocation.
- Furthermore, we design a distributed rate control protocol with provable convergence to the Nash Equilibrium of the system

• To the optimal rate control problem, where each client optimizes its request arrival rate.

EXISTING SYSTEM

• Existing mechanisms typically rely on monetary exchange which requires additional infrastructure that is not always available.

PROPOSED SYSTEM

- Then we propose our MRQ scheduling policy that can enforce the delay allocation rule effectively in the heavy traffic regime.
- Besides, we design a distributed rate control protocol which can lead the system to the Nash Equilibrium.
- Furthermore, we show that our non-monetary mechanism can be extended to handle loss rate allocation as well.

• Finally, simulation results depict the effectiveness of our mechanism.

HARDWARE REQUIREMENTS Intel core i3 • Processor • RAM - 2B Hard Disk - 20 GB •

SOFTWARE REQUIREMENTS

- Operating System : LINUX
- Tool : Network Simulator-2

• Front End : OTCL (Object Oriented Tool Command Language)

REFERENCE

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