CSE 322: Computer Network Sessional (NS3)

CUBIC-FIT: A High Performance Congestion Control Algorithm

Nahian Salsabil
1705091

Reference

Source: https://ieeexplore.ieee.org/document/6530831

Author: Jingyuan Wang, Jiangtao Wen, Yuxing Han, Jun Zhang, Chao Li and Zhang Xiong

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Motivation

- Increasing **CUBIC** based networks

- Existing Reno friendly algorithms

- CUBIC-dominated algorithms required

Existing Algorithm

Default Algoithm for NS3 latest release: **CUBIC**

Challenges

- Performance over wireless links
- Fairness problem

Proposal

Improved Algorithm: **CUBIC-FIT**

Base: CUBIC

Idea

- Delay based TCP

- Single TCP connection

- End to end queuing delay

Improvement

- Performance over large range of network

- Throughput performance over wireless network

- Maintain graceful friendliness with plain CUBIC networks

Thank You