94-1175R1 Current Default Proposal: Unresolved Issues

Raj Jain, Shiv Kalyanaraman, Ram Viswanathan Department of CIS

Raj Jain is now at Washington University in Saint Louis Jain@cse.wustl.edu

http://www.cse.wustl.edu/~jain/

The Ohio State University

Raj Jain



Key Issue

□ Anything that hurts the transient performance should be optional.

Active Source While Transmitting

- "5. An active source should decrease its ACR by at least ACR/RDF every Nrm cell times, down to MCR (an exponential decrease)."
- □ Purpose: Lost RM cells ⇒ Extreme congestion Timeout interval = Nrm cells
- Will trigger every single time during normal ramp up even when there is no congestion
- Example of design that hurts normal operation to take care of rare abnormal conditions
- □ Timeout interval should be k*Nrm cells k>>1

Suggested Modification

"5. If an RM cell is not received in k × Nrm cell times, the source should decrease its ACR by at least ACR/RDF down to MCR (an exponential decrease). Here k is a parameter negotiated at connection setup. No decrease is required if an RM cell is received."



- ☐ Minimize the impact of rare abnormal conditions on the normal path
- Unnecessary decrease every time hurts transient performance