

95-0178

A Sample Switch Algorithm

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- ❑ Switch Algorithm
- ❑ Pseudocode
- ❑ Simulation Results
- ❑ Future Improvements

ERICA = EPRCA++

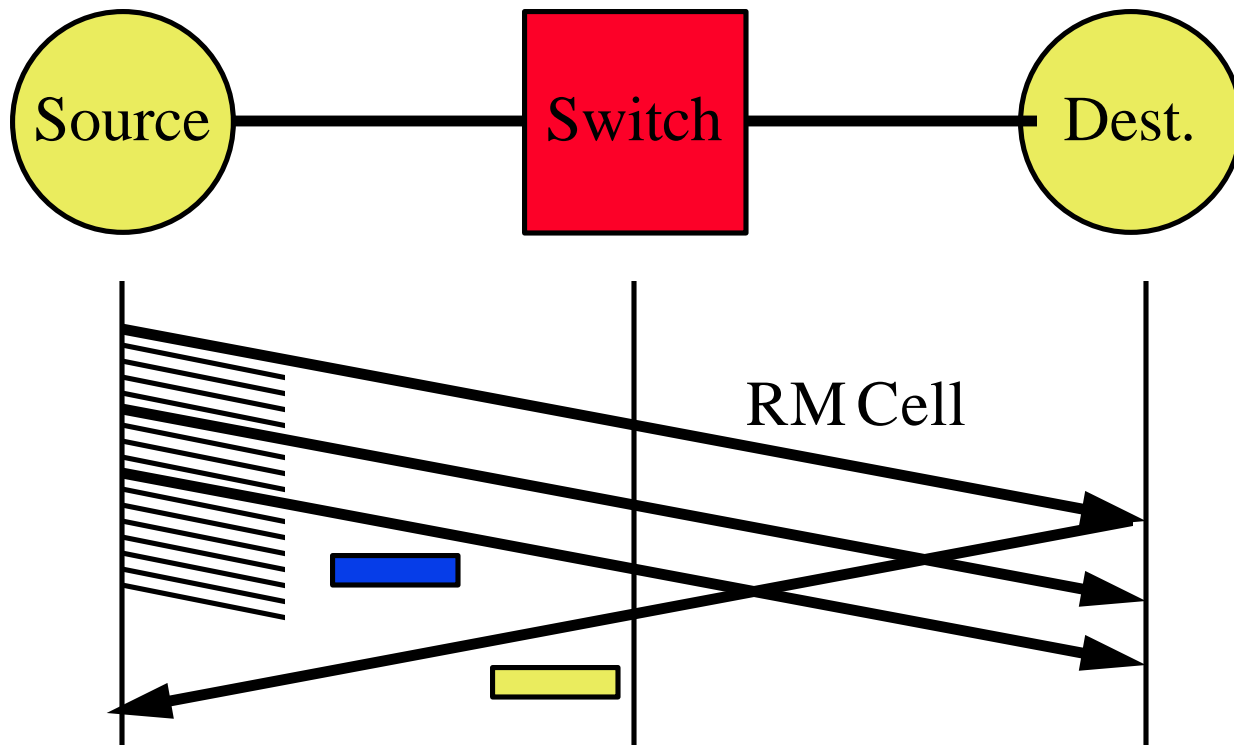
- ❑ ERICA = Explicit Rate Indication
for Congestion Avoidance
- ❑ The same as EPRCA++ presented in the November meeting.
- ❑ ERICA is the switch algorithm part of EPRCA++
- ❑ Source/Switch/destination behavior **exactly as agreed** in the November meeting.
No changes in source/switch/destination behavior required.
- ❑ **Fully compatible** with current RM Cell format.
No new bits, no new fields.

Switch Algorithm

- ❑ Monitor:
Overload = Input rate / Target Utilization
Fair Share = Available rate / # of active VCs
- ❑ This VC's Share = CCR / Overload
- ❑ ER = Max(Fair Share, This VC's Share)
ER in Cell = Min(ER in Cell, ER)
- ❑ ER in Cell = Min{ER in Cell, Max(Available rate / # of active VCs, CCR / Overload) }
- ❑ Use BECN option when appropriate

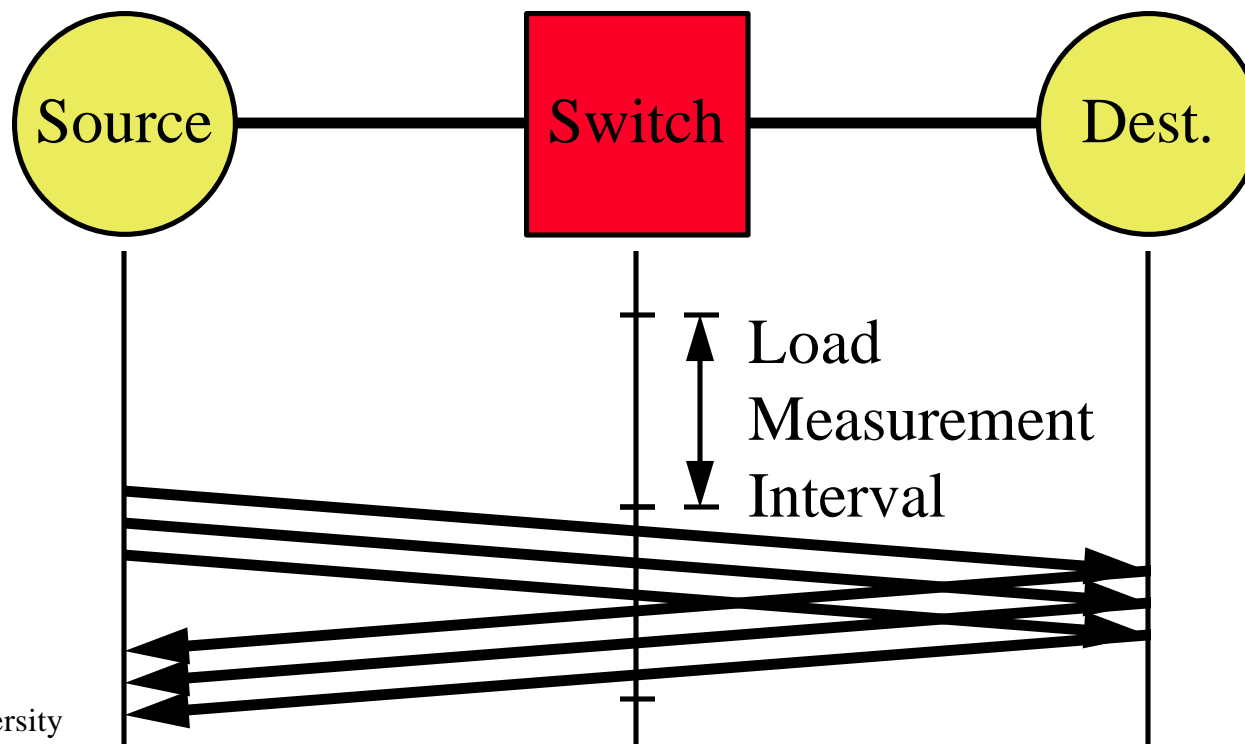
Innovation 1: Most Recent Info

- Use the latest CCR from the forward direction (more recent information) and not that in the reverse RM cell



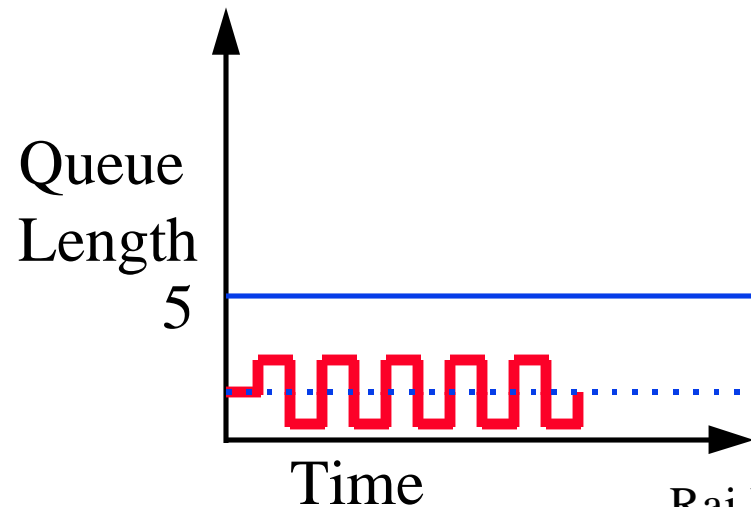
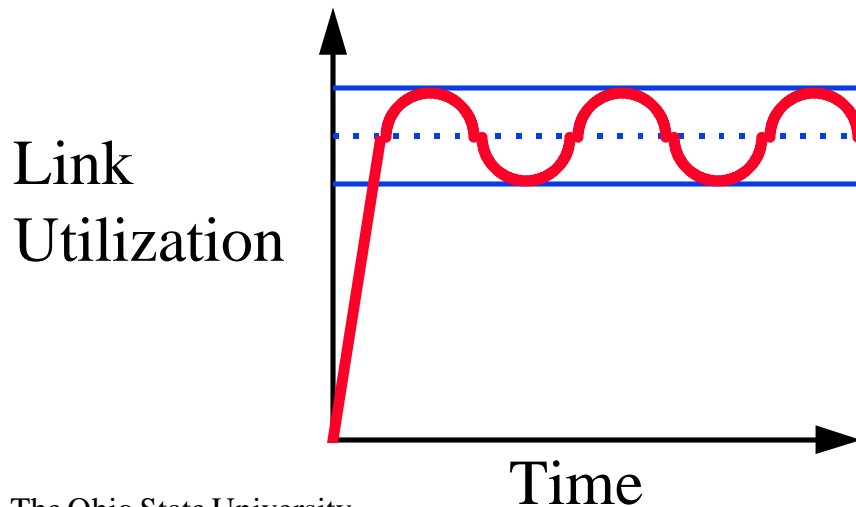
Innovation 2: Same Feedback in one Interval

- ❑ No new feedback if no new measurement
- ❑ Same feedback in all RM cells of a VC in one averaging interval



Features

- ❑ Congestion Avoidance
 - ❑ High throughput, Low delay
 - ❑ Small queues
- ❑ Fast response
- ❑ Parameters: Few, insensitive, easy



Motion

It is proposed that the following text from AF-TM 95-0178 be added to the TM document appendix:

“Appendix: A Sample Switch Algorithm
The traffic management ... }”