

CS/CoE 535

Acceleration of Networking Algorithms in Reconfigurable Hardware

Lecture 8 : Supplemental

Washington University
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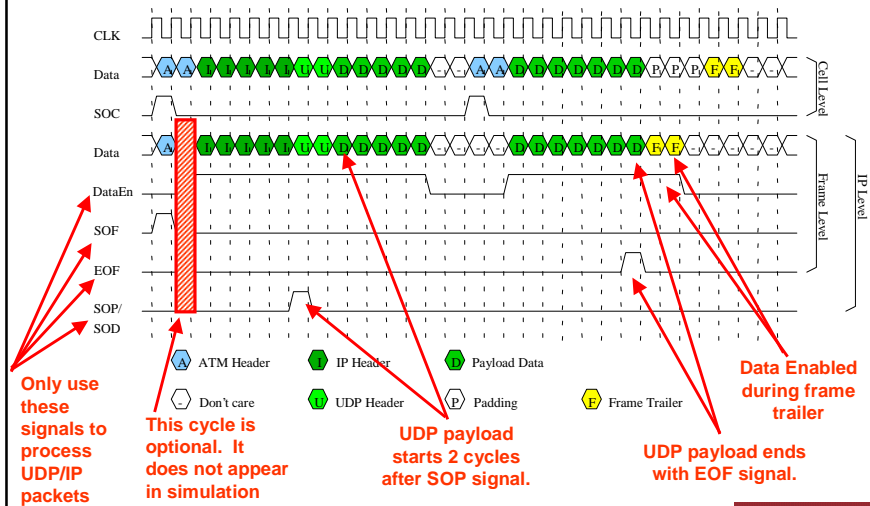
<http://www.arl.wustl.edu/~lockwood/class/cs535/>

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Protocol Wrapper Signal Notes

- Obey the protocol wrapper control signals
 - Do not use *Start of Cell (SOC)* signal
 - Only the wrappers should examine the SOC signal
 - Use the Frame and data signals
 - *Start of Frame (SOF)* : May repeat for aborted packets
 - *Start of Data (SOD)* : Active high on first word of UDP
 - *End of Frame (EOF)* : Active high on last word
 - Use *Data Enable (DataEn)* signal
 - Active high during valid data
 - Note that DataEn can immediately follow SOF

Additional Notes on the Protocol Wrappers



Protocol Wrappers Simulation Notes

- Simulation data arrives well after system starts
 - ‘run 1500’ to see the testbench data
- Observe Testbench data
 - 5 words : IP Header
 - 2 words : UDP Header
 - 4 words : Payload
 - ‘0000’
 - ‘He11’
 - ‘0 wo’
 - ‘r1d.’
 - 2 words : AAL5 Trailer