Ethernet Dequeue PIE ←valid--fabric_start -ready-→ fabric_busy **←**data-– data_a (data) data_b (addr) **←**addr-←addrfabric_type ←addr--fabric_nid – fab0_start → fab0_busy put0_start — Fabric 32 data a (fabric addr) put0_busy ← Put DMA - data_b (local addr) → CMD DMA MAC 0 Output IX -validdata_b (dtcm gather list addr) fabric_length 0 → VALID fabric_nid 0 -ready-Fabric -READY Add -fab1_start → fab1_busy → DATA put1_start — 32 Fabric - data_a (fabric addr) put1_busy ← Put DMA - data b (local addr) → CMD — fabric_length — fabric_nid data_b (dtcm gather list addr) -DMA MAC 1 Output IX -valid-→ VALID 1 -ready-READY ←tx_addr— —tx_data tx_nid— ←dtcm data-—tx_valid— ←itcm data-–tx_ready malt data Fabric dtcm_rd-Interface -dma0_eot--rx_type--rx_addr— -dma1_eot--rx_data---rx_valid---→ doorbell_valid Doorbell -data/wr-— doorbell rd Reg doorbell_result fairness descr_queue_num
descr_start → read_response_valid REG fabric_start -data/wr-→ read_response — descr_busy - descr_empty - malt_start → malt_busy → fab0_start → malt hit _fab0_busy MAC Address -addr/data/wr-→ malt_port Lookup Table → fab1 start data_a ◀ —fab1_busy - data a (vlan + mac) data b ← - data_b (mac) → put0_start Fabric — put0_busy Drop → put1 start Custom descr start -data a-32/ — put1_busy -data_b-→ descr_busy Instruction → set_size → descr_empty Data -data_c-Queue Interface -addr/data/wr-Arbiter TCM → fabric_start Manager -startdescr_result -done-— fabric_ready 1Kx32 data_a (queue) –a/d/wr/rd read_response_rd
read_response_valid
read_response - data_b (size) -opcode_n -rfx_a-NIOS -rfx_b -rfx_cdoorbell_rd
doorbell_valid
doorbell_result -read a--addr/data/wr/rd Instruction -read_b-TCM -write_c-→ malt_start 1Kx32 — malt_busy -addr/data/wr/rd--clock--clock_en-– malt_hit

REG

-data/wr-

-reset-

- malt_port