GATE Processing at the ONU

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Introduction

- ***GATE Reception Process*** and ***Envelope Activation Process*** state diagrams replace the following state diagrams defined for 10G-EPON:
  - Figure 77–29—Gate Processing ONU Programing State Diagram
  - Figure 77–30—Gate Processing ONU Activation State Diagram

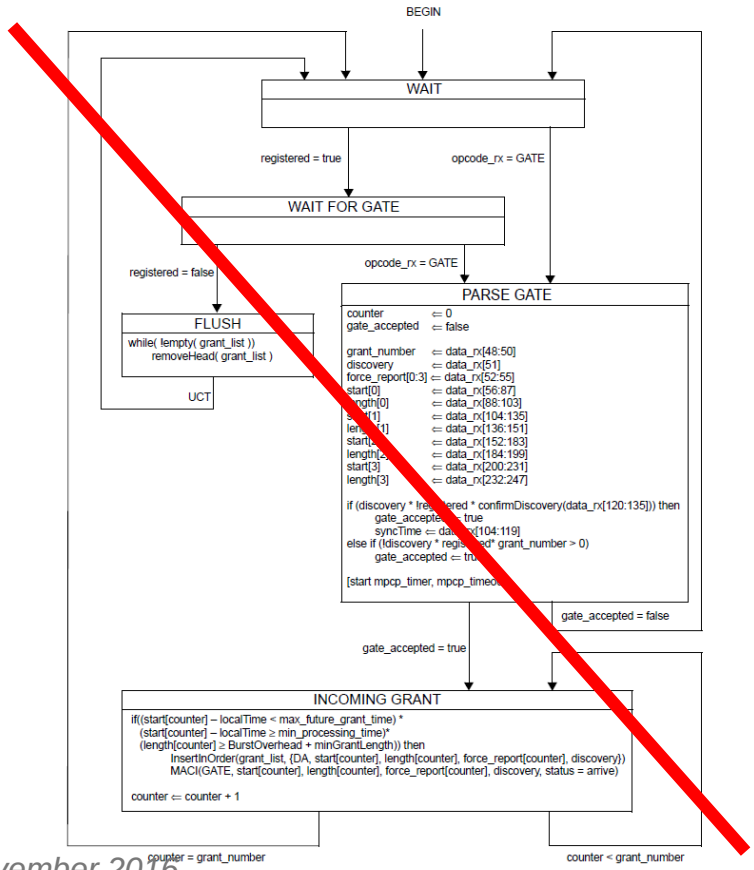


Figure 77–29—Gate Processing ONU Programing state diagram

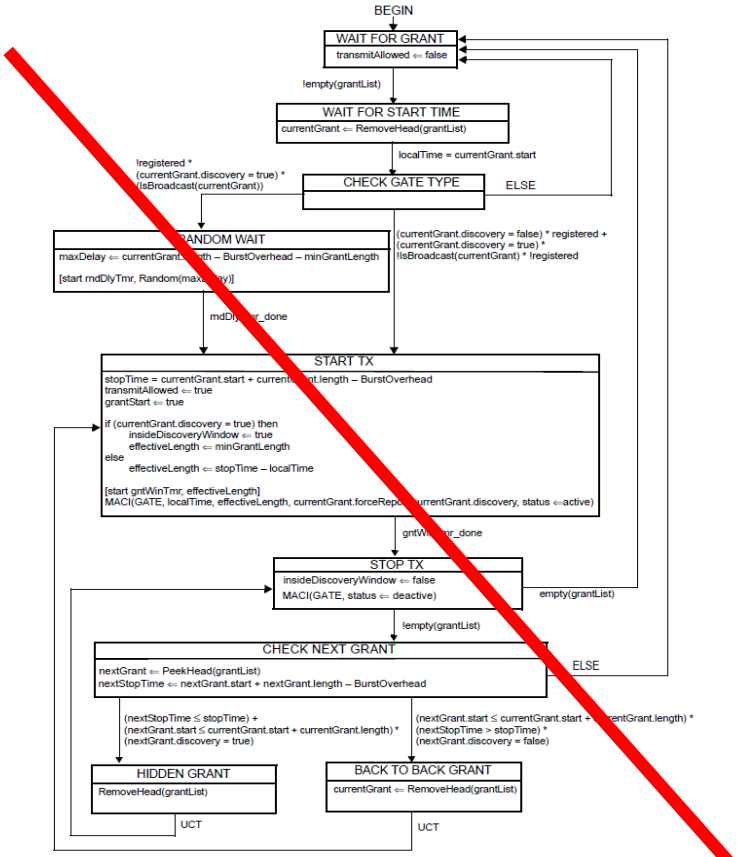
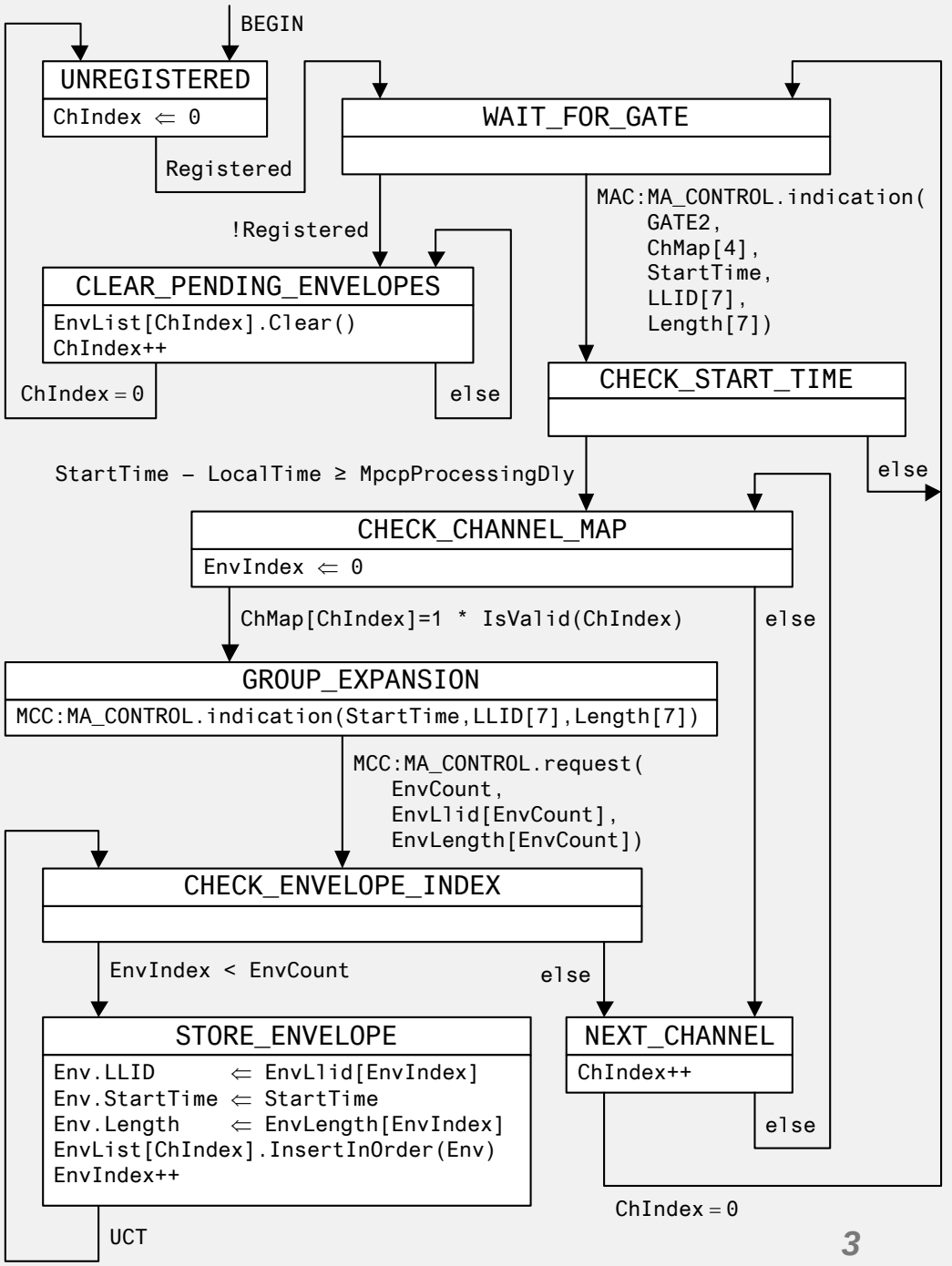


Figure 77–30—Gate Processing ONU Activation state diagram

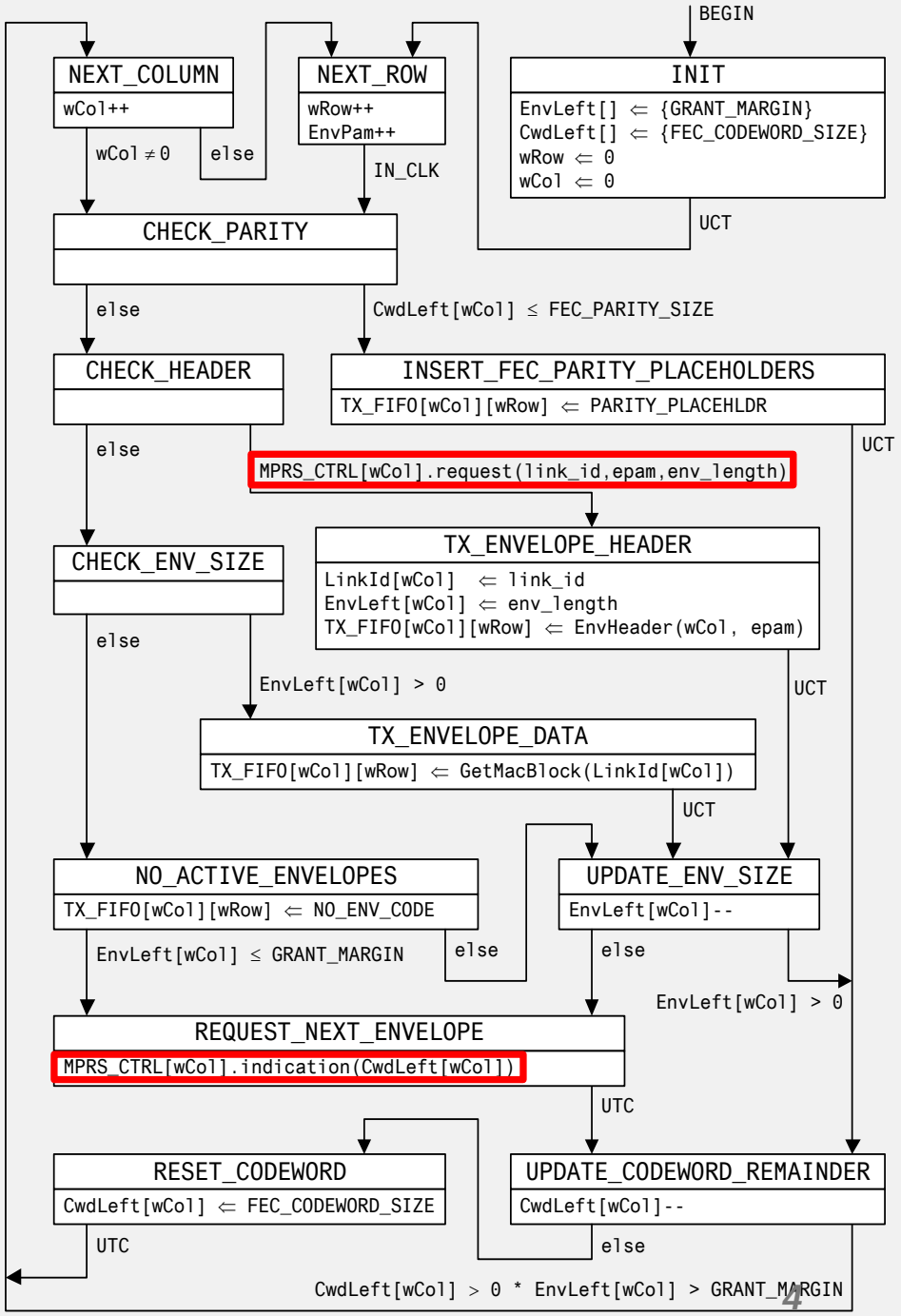
MPCP GATE Reception Process

- Receives and parses GATE MPCPDUs
- Stores envelope data in ***EnvList[ChIndex]*** (separate list per channel)
- If ONU becomes deregistered, clears all pending envelopes on all channels
- NOTE: the received envelopes are passed to higher layer for group expansion (see the description of GLID in kramer_3ca_1b_0916.pdf).



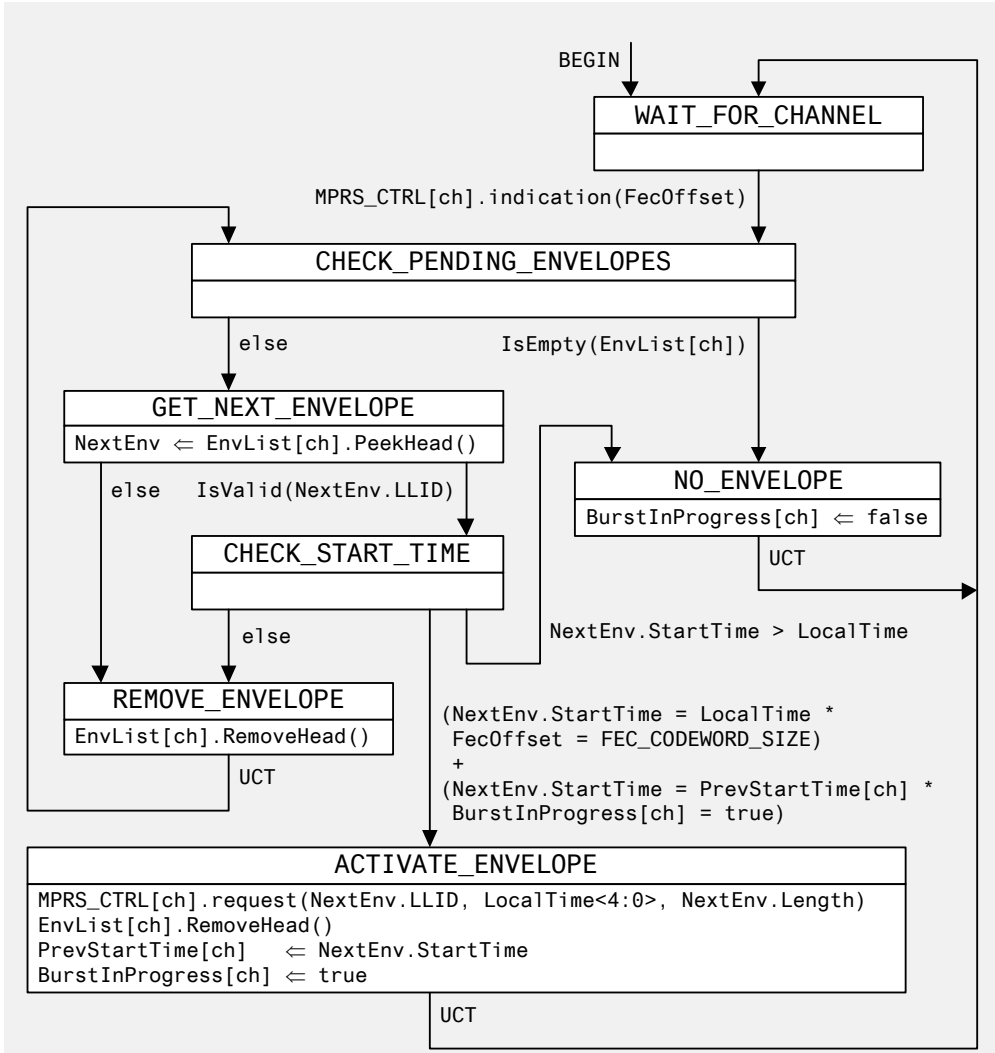
MPRS Control

- MPRS Control primitives are exchanged between MPRS Input Process and the MPCP Envelope Activation Process
- MPRS Input Process indicates to MPCP Envelope Activation Process that a channel is available (***MPRS_CTRL.indication(…)***)
- MPCP Envelope Activation process issues ***MPRS_CTRL.request(…)*** to MPRS Input Process to initiate transmission of a new envelope at a right time.



MPCP Envelope Activation Process

- The ***MPCP Envelope Activation Process*** receives ***MPRS_CTRL.indication(…)*** and generates ***MPRS_CTRL.request(LLID, EPAM, EnvLength)*** primitives
- ***EPAM*** parameter is equal to low 5 bits of ***LocalTime*** (see kramer_3ca_3a_1116.pdf)
- "Future" envelopes are deferred
- New burst can start only when MPRS indicates that it can start a new FEC codeword
- Back-to-back envelopes can start at any time
- Late envelopes are discarded (should never happen)



Thank You