

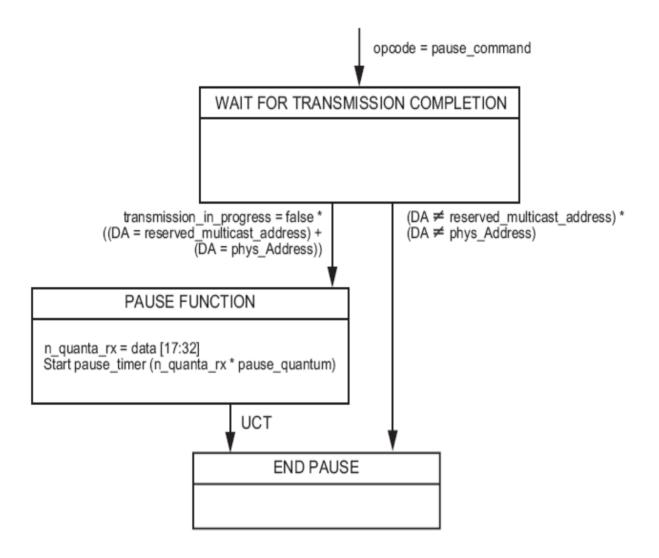
# PFC State Diagrams

Claudio DeSanti, September 2009

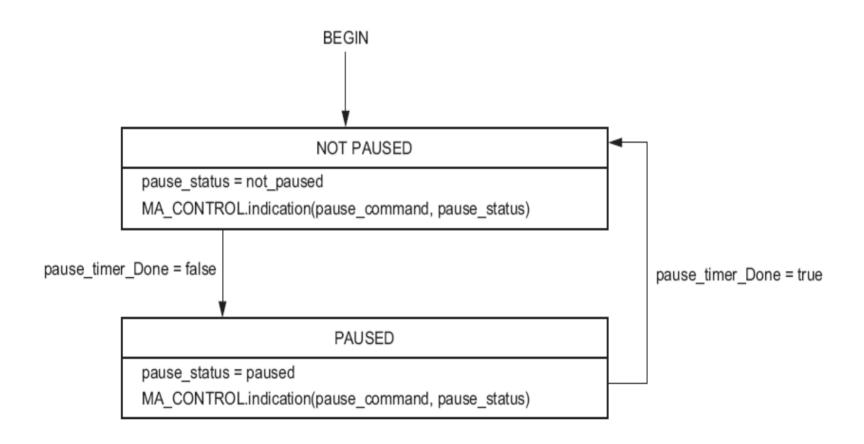
## **MA\_CONTROL** Primitives

```
MA_CONTROL.request (
    destination_address opcode request_operand_list )
MA_CONTROL.indication (
    opcode indication_operand_list )
```

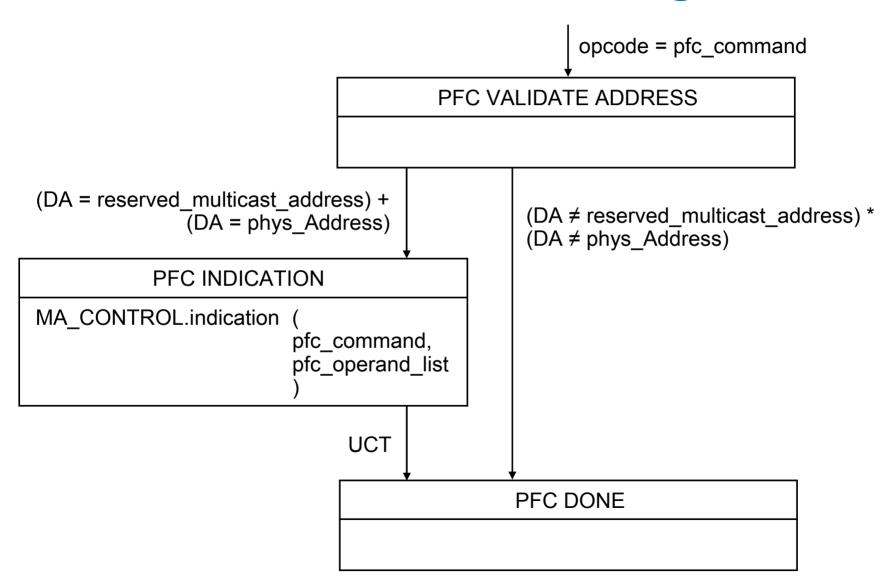
# **PAUSE** Receive State Diagram



# **PAUSE Indication State Diagram**



## 802.3bd PFC Receive State Diagram



## 802.1Qbb PFC Indication State Diagram (1)

(PFC.indication with  $(e[n] = 1) * (time(n) \neq 0)) *$  (a frame is being transmitted)

WAIT FOR TRANSMISSION COMPLETION

Per Priority n

The frame completed transmission

(PFC.indication with  $(e[n] = 1) * (time(n) \neq 0)) *$  (no frame is being transmitted)

### PRIORITY N PAUSED

Do not select frames at priority n for transmission

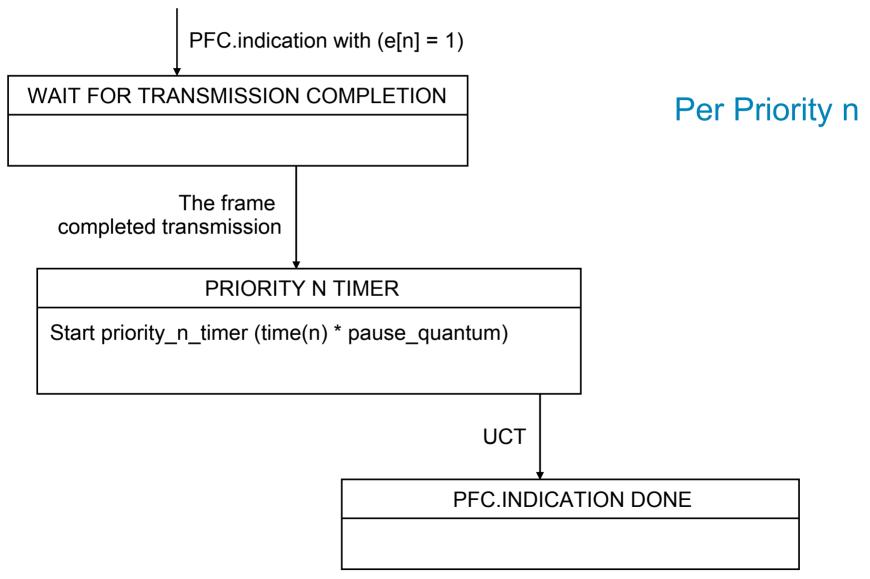
Start priority\_n\_timer (time(n) \* pause\_quantum)

 $(priority\_n\_timer\_done) + \\ (PFC.indication with (e[n] = 1) * (time(n) = 0))$ 

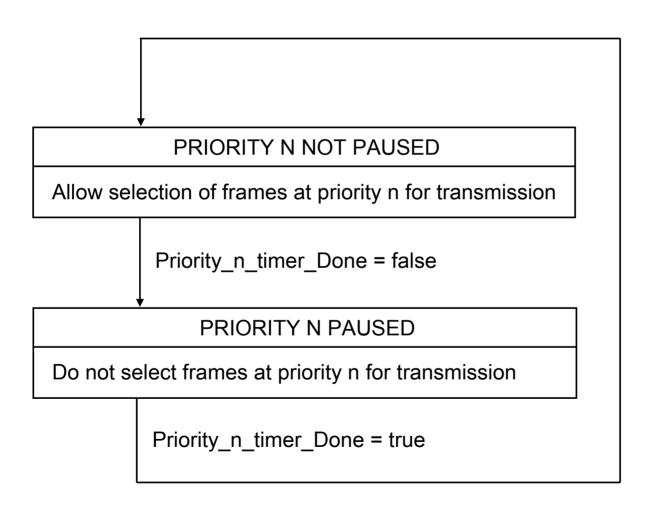
### PRIORITY N NOT PAUSED

Allow selection of frames at priority n for transmission

## 802.1Qbb PFC Indication State Diagram (2)

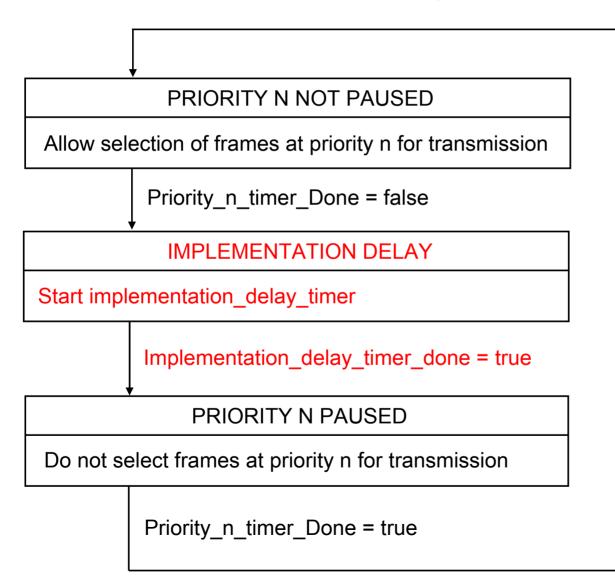


# 802.1Qbb PFC Operation State Diagram



Per Priority n

# **Implementation Delay? (1)**



Per Priority n

# Implementation Delay? (2)

(PFC.indication with  $(e[n] = 1) * (time(n) \neq 0)) *$  (a frame is being transmitted)

WAIT FOR TRANSMISSION COMPLETION

Per Priority n

The frame completed transmission

(PFC.indication with  $(e[n] = 1) * (time(n) \neq 0)) *$ (no frame is being transmitted)

#### IMPLEMENTATION DELAY

Start implementation\_delay\_timer

Implementation\_delay\_timer\_done = true

### PRIORITY N PAUSED

Do not select frames at priority n for transmission Start priority\_n\_timer (time(n) \* pause\_quantum)

 $(priority_n\_timer\_done) + (PFC.indication with (e[n] = 1) * (time(n) = 0))$ 

### PRIORITY N NOT PAUSED

Allow selection of frames at priority n for transmission

# Implementation Delay (3)

Or what???

# Thank You