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**Project: IEEE P802.15 Working Group for Wireless Personal Area Networks  
(WPANs)**

**Submission Title:** VLC cell mobility clarification

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**Re:**

**Abstract:** proposes clarification for the VLC cell mobility concept

**Purpose:**

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# Issue

Many CIDs pertinent to VLC cell mobility

Authors provide further understanding on this concept for explanation

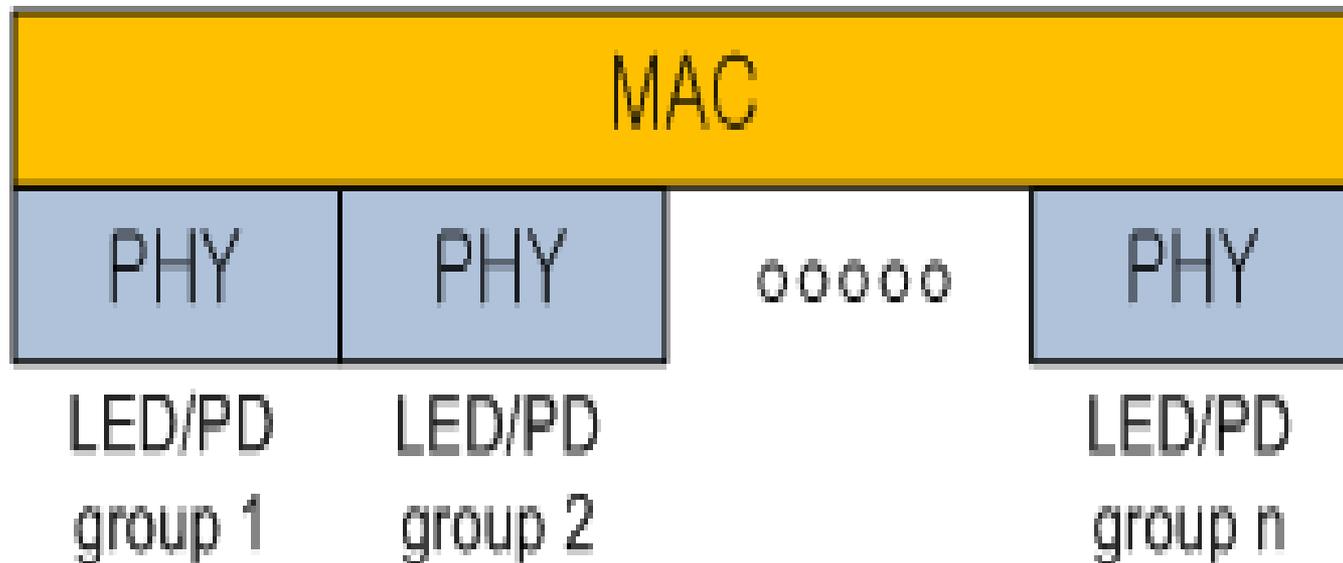
If the concept seems satisfactory, authors willing to work with committee members to make suitable modifications to the draft

# Authors viewpoint on MAC structure for mobility

This concept needs to be clarified in the draft.

Propose adding this block diagram in the mobility section.

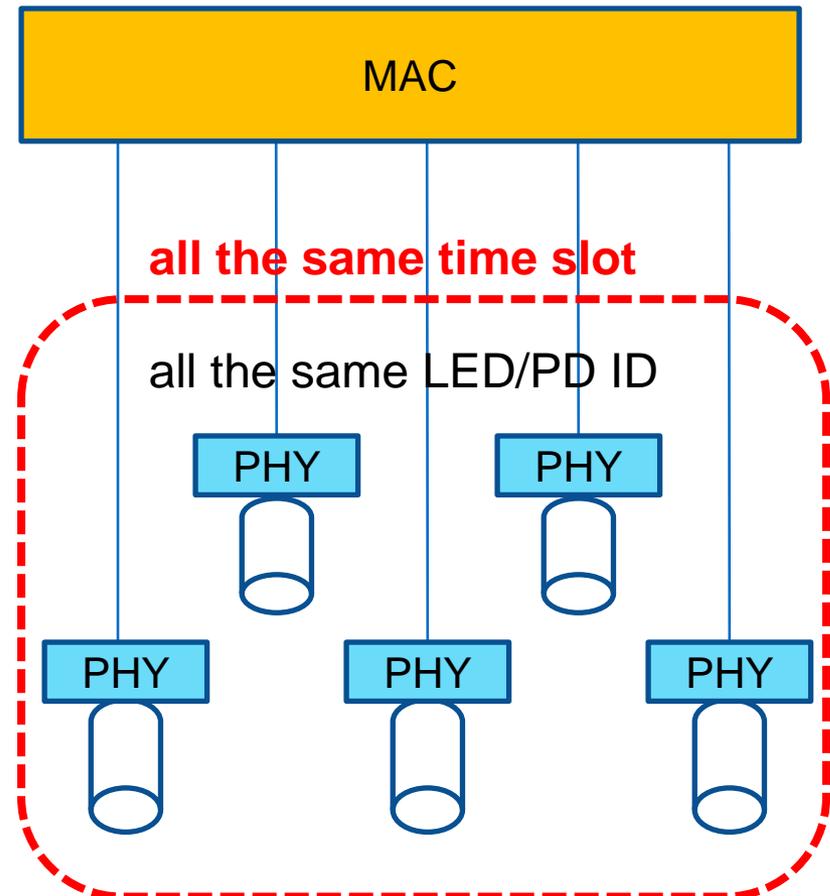
Authors believe this architecture to be within scope and supported by the PAR



# Functionality#1 – Static

MAC : same ID  
assignment and  
time slot  
assignment

Static mode  
(no mobility)

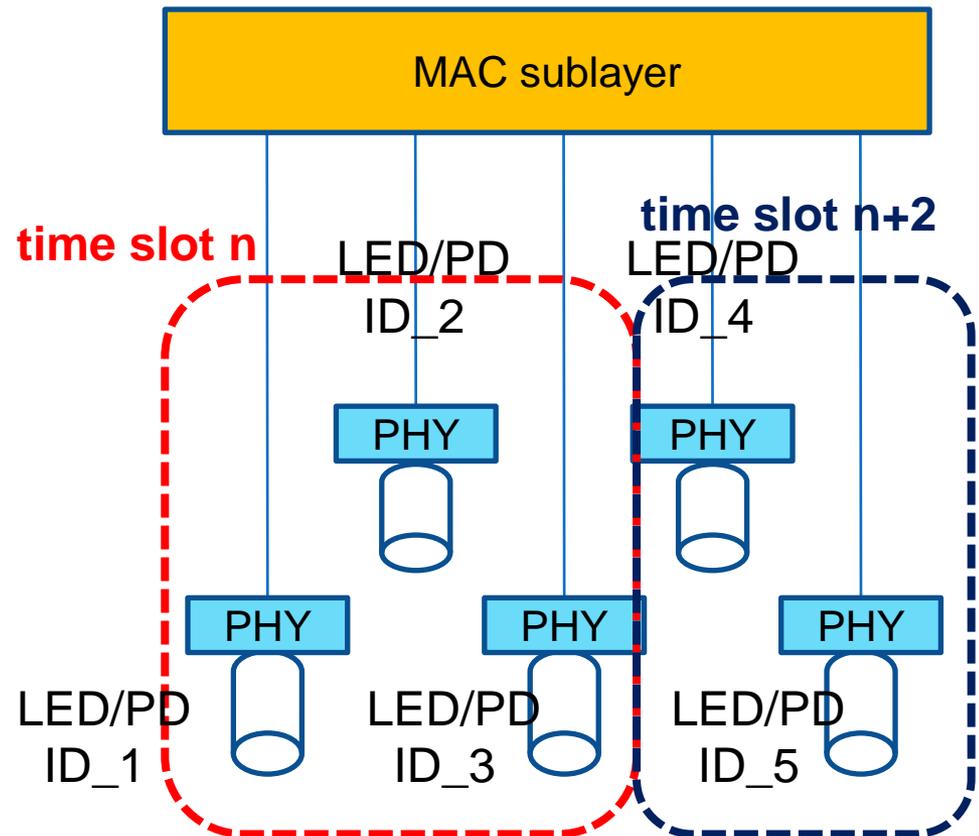


# Functionality#2 - Dynamic

MAC : time slot assignment based on ID

Dynamic mode (mobility) based on grouping

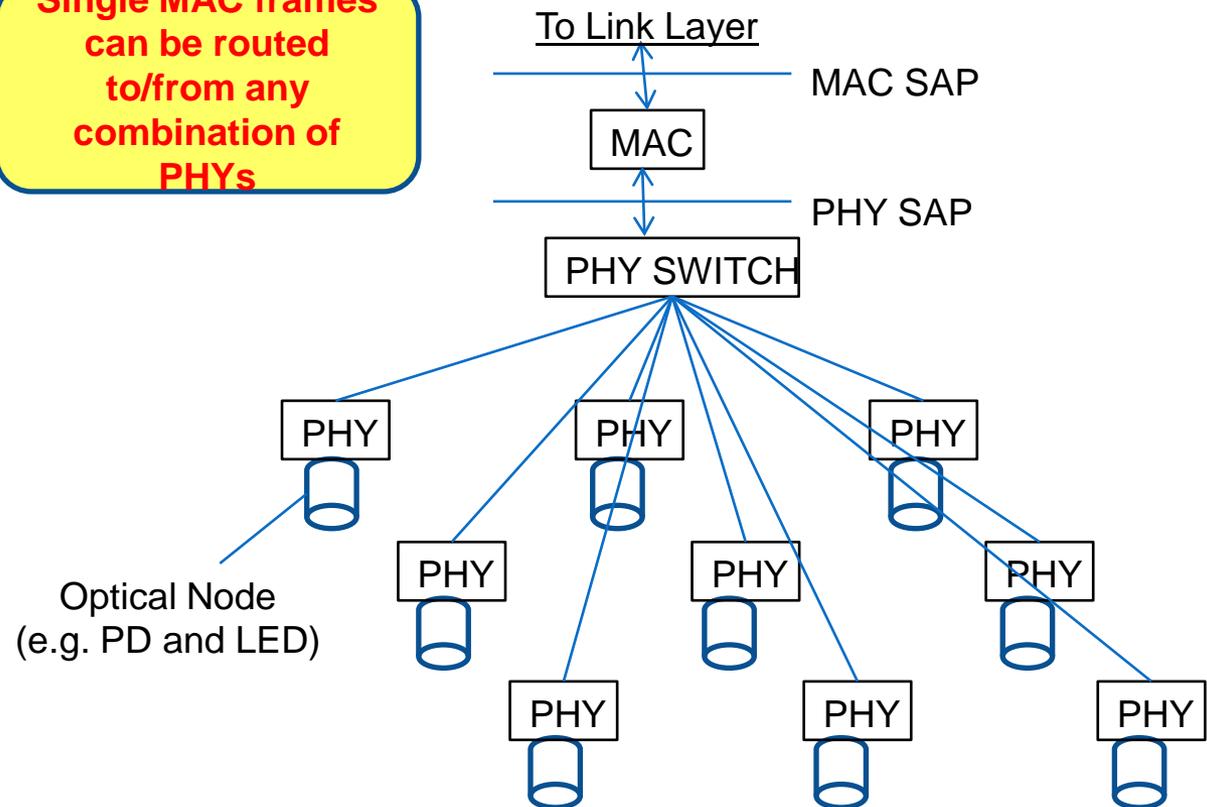
- All PHYs within a group operate in the same manner
- Group size can be varied
- **Only one group active at a time for VLC communication**



# This model is similar to model #2 in doc 10/687r0

The PHY switch is controlled by the MAC and the cell IDs are used to select the subset of PHYs to be used for communication. The other PHYs that are not used for communication are simply providing illumination. The design of the PHY switch is left to the implementer.

**Single MAC frames  
can be routed  
to/from any  
combination of  
PHYs**



# Summary

Authors believe that the VLC cell mobility can be supported without upper layer (above MAC sublayer) interaction

Authors believe the clarification of the model and the functionality can be added to the draft

Willing to work with other committee members to resolve any other issues and add clarification text