Proposed Text of UL Subchannelization Section for the IEEE 802.16m Amendment

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Re:
"16m amendment text":

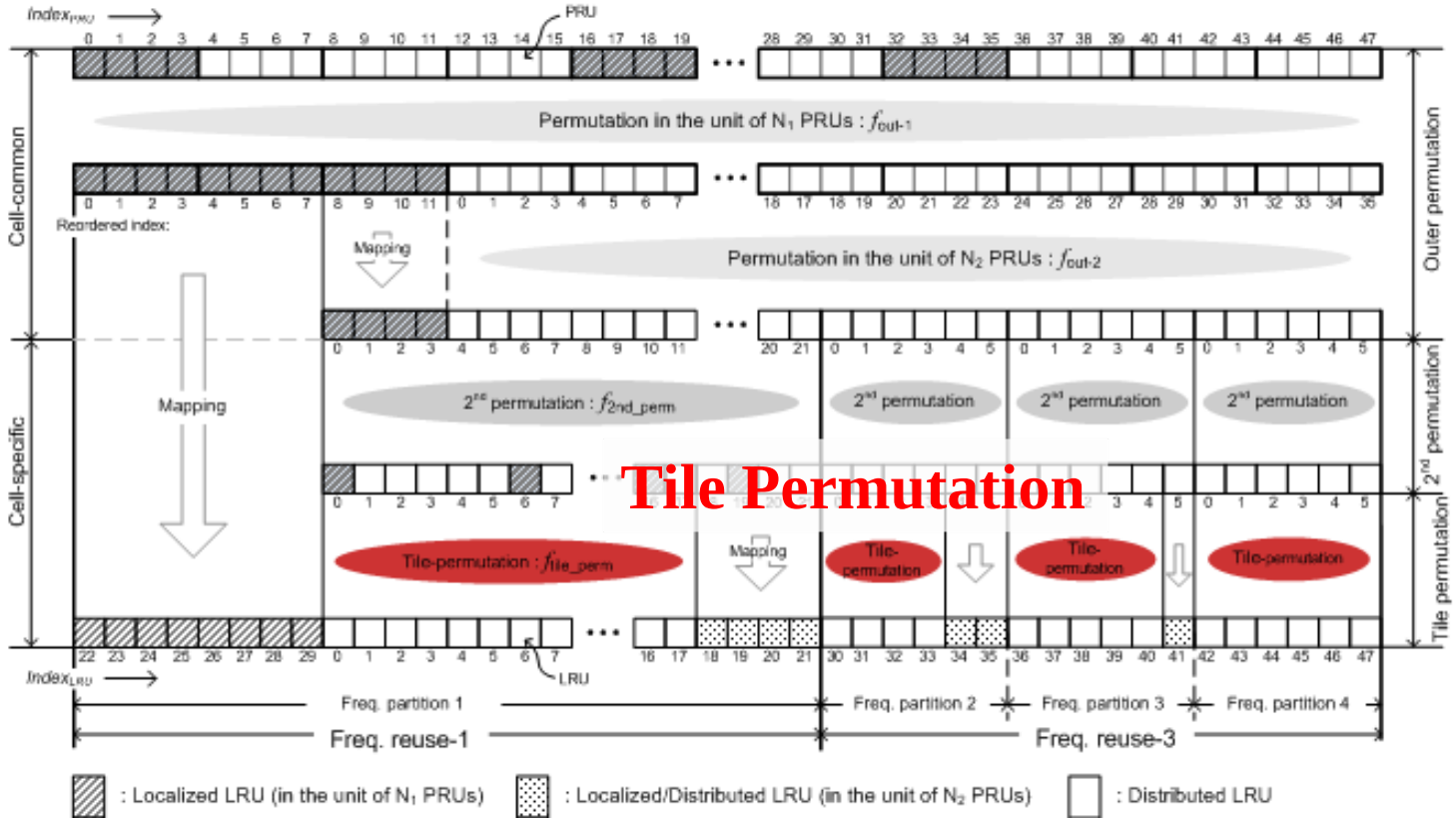
IEEE 80216m-08_042 "Call for Contributions on Project 802.16m Draft Amendment Content" in response to the following section: "11.6 Uplink Physical Structure (data plane only)"

Base Contribution:
None

Purpose:
To be discussed and adopted by TGm for use in stage 3 document development

Uplink Subchannelization

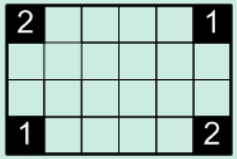
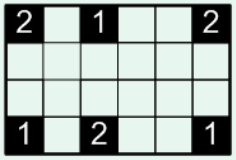
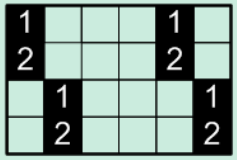
- Identical to DL's
- Only Except 'Tile Permutation' for distributed LRU
  - Function for tile permutation is same to 2nd permutation



Pilot Pattern for 16m PUSC

- Major Issue is Pilot OH for 2 Stream Case
  - Trade off btw Pilot OH and Link Performance

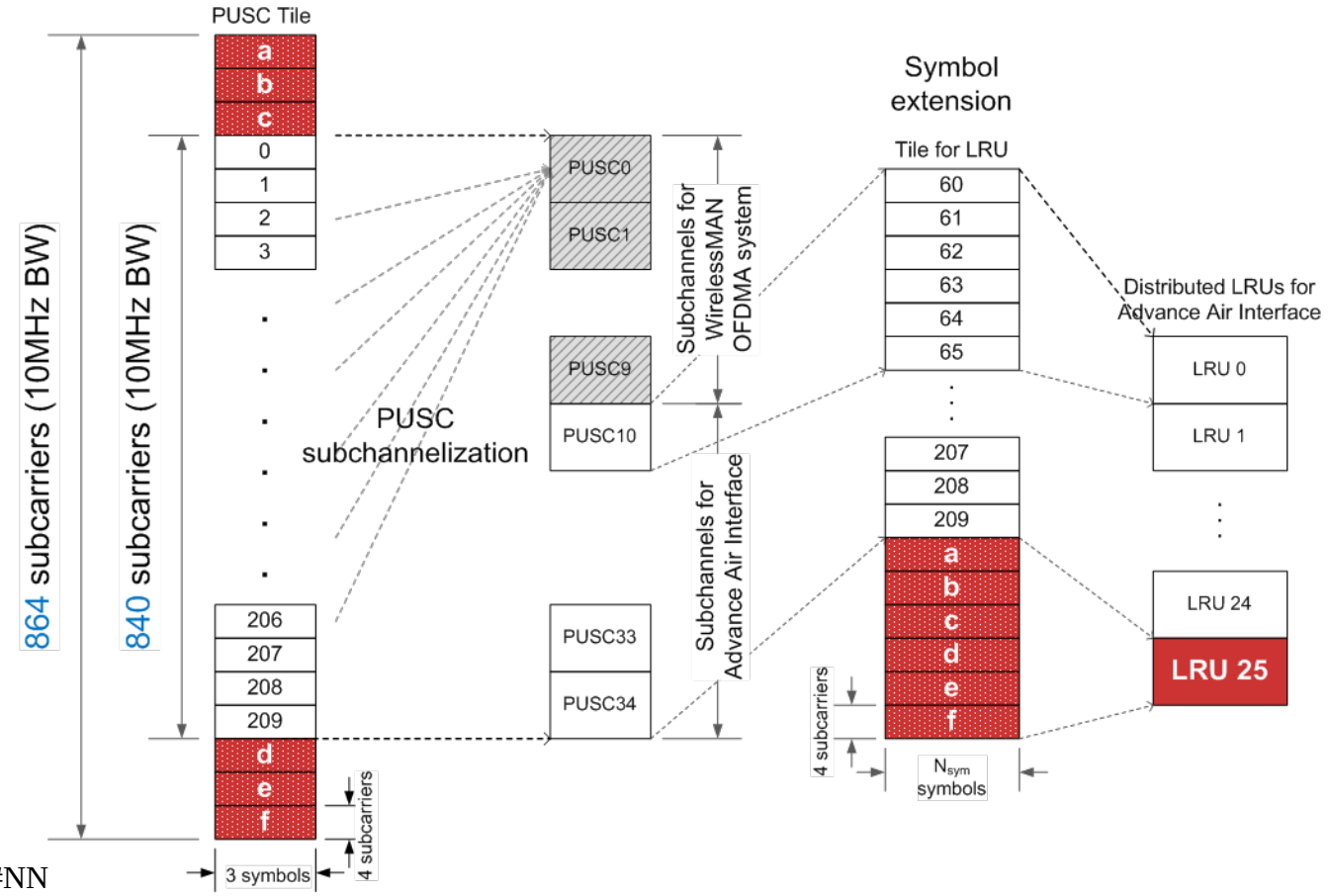
* Efficiency : MPR * (1-PER)*(1-OH)

Case	Pattern	Overhead	Link Perf.	Efficiency*
1		16.7%	low	**High**
2		25%	mid	Mid
3		33.3%	high	low

- Reference : Contribution C80216m-08_1458.ppt

Guard Carrier Utilization

- Difference of Available Subcarrier btw 16m & 16e
  - 24 subcarriers (864 – 840) for 10MHz BW
  - 16m system can benefit from using the subcarriers



(Example)
No. of LRU
25 → 26

: **4% increase**