

# P802.1CM – D0.3 Editor's Report

János Farkas  
janos.farkas@ericsson.com

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# Project Progress



- › Way of working
  - Collect requirements
  - Evaluate possible solutions
  - Specify and document agreed solutions in form of TSN Profiles
- › A number of contributions in face-to-face and virtual meetings
  - Requirements, parameters
  - Terminology
  - Evaluation of bridged networks and potential TSN tools
- › Drafts capture progress
  - D0.0, D0.1, D0.2
  - D0.3 – new: <http://www.ieee802.org/1/files/private/cm-drafts/d0/802-1CM-d0-3.pdf>
- › All collected on the project page:  
<http://www.ieee802.org/1/pages/802.1cm.html>

# D0.3



## › Updates include/address

- [1] <http://www.ieee802.org/1/files/public/docs2016/CM-Mustala-Comments-to-CM-specification-0316.pdf>
- [2] <http://www.ieee802.org/1/files/public/docs2016/cm-CPRI-discussion-on-requirements-0516.pdf>

## › Clause 3

- 3.1 Fronthaul: The transport connection between the functional building blocks of a cellular radio base station (Clause 5). [1]

## › Clause 5

- New paragraph and further changes in introductory text [1]
- 5.1 title changed to “Class 1 requirements” [1]
  - › Updates in IQ and C&M requirements [2]
  - › Initial text on synchronization requirements [2]
- 5.2 title changed to “Class 2 requirements” [1]

## › Clause 7

- Updates to align with Clause 5

# Discussion Items

# Current Terminology



- › D0.0 listed all CPRI terms
- › D0.1 and D0.2 have been simplified (“cleaned”) to use generic terms
  - Radio Equipment: The equipment that implements radio functionality
  - Radio Equipment Control: The entity that controls one or more, typically multiple, radio equipment
  - Note that equipment is a generic term



# Change Terminology?



## › A change has been proposed

– <http://www.ieee802.org/1/files/public/docs2016/CM-Mustala-Comments-to-CM-specification-0316.pdf>

– RE → DU = Distributed Unit

– REC → CU = Central Unit



## › Editor's concerns

– Current terms reflect functional decomposition

– DU & CU reflect geographical decomposition

– DU = Digital Unit is used as a synonym for the REC. It may be confusing to use DU for the 'other entity' than used today.

– Distributed Unit seems to be a confusing term. A functionality is distributed, and the distributed functionality is implemented by multiple units. A unit is a single thing/quantity, it is not divided/distributed any further.

# Terminology Proposal



- › Use terms that reflect functional decomposition, not geographical one
- › Agree with having future proof terms as much as possible
- › Equipment
  - Generic term
  - Could be replaced with a synonym, e.g., unit, device, element
- › Radio
  - It is about functional decomposition of Radio Base Station
  - The radio functionality is distributed in case of the current or any future functional decomposition, which would be good to have reflected in the term in some form
  - Future functional decompositions will move more radio processing from the Radio Equipment Control to the Radio Equipment
  - Can we incorporate added radio processing in a new term in replacement of RE? Should we try it given the number of possible decompositions?
- › Editor's proposal: keep RE and REC

# Midhaul and Backhaul



- › A figure illustrating midhaul and backhaul has been proposed to be added

- <http://www.ieee802.org/1/files/public/docs2016/CM-Mustala-Comments-to-CM-specification-0316.pdf>

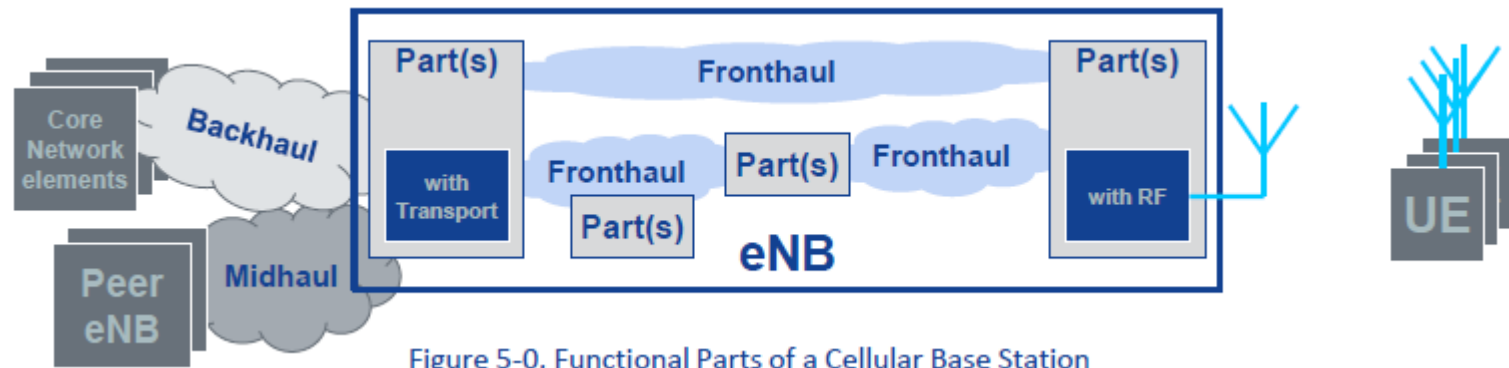


Figure 5-0, Functional Parts of a Cellular Base Station

- “Fronthaul link can also be connection between two DUs.” This is rather midhaul.
- › Editor’s concerns
  - Only fronthaul is in scope of 802.1CM, midhaul and backhaul are not
  - We should not introduce terms that are not in scope



# Multiple Fronthaul Domains



- › A figure illustrating multiple fronthaul network domains has been proposed to be added

– <http://www.ieee802.org/1/files/public/docs2016/CM-Mustala-Comments-to-CM-specification-0316.pdf>

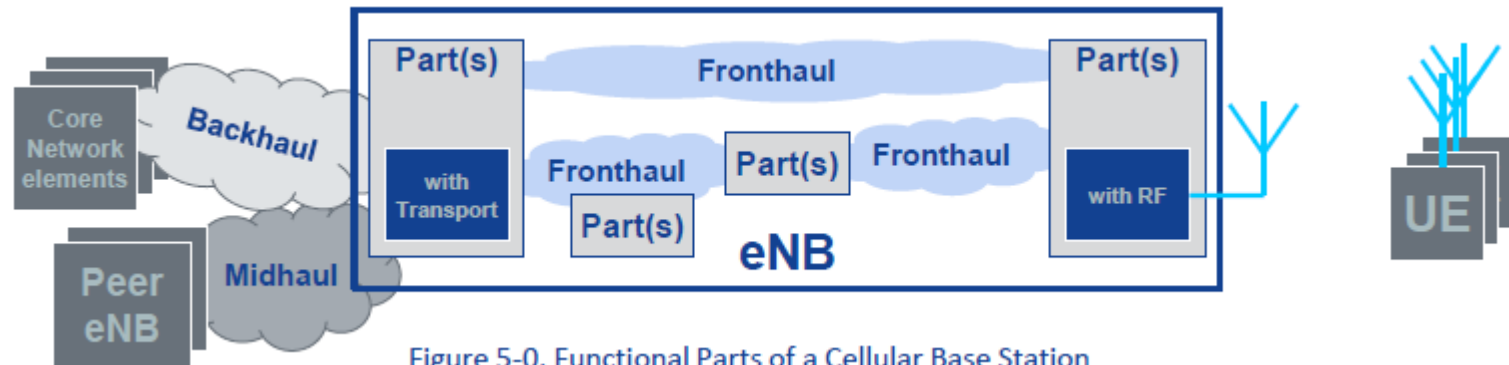


Figure 5-0, Functional Parts of a Cellular Base Station

- › Editor's concerns

- The scope of 802.1CM is single domain
- 802.1CM specifies how to provide fronthaul by a bridged network
- Part(s) of the above figure are End Stations; it is out of scope for 802.1 to specify how an End Station interconnects bridged networks
- A network operator may use multiple fronthaul bridged network domains as components and build a set-up shown in the figure or different ones
- 802.1CM should not specify multi-domain or how individual fronthaul network domains are used as components

# Next Steps

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- › Finalize requirements
- › Agree on terminology
- › Prepare draft for Task Group ballot
- › Future virtual meetings
  - 16 June 2016
  - 7 July 2016
  - Details: <http://www.ieee802.org/1/pages/tsn.html>