ITU-T Workshop on the evolution of the transport networks to support IMT-2020/5G

Geneva, 16 October 2017

Workshop agenda

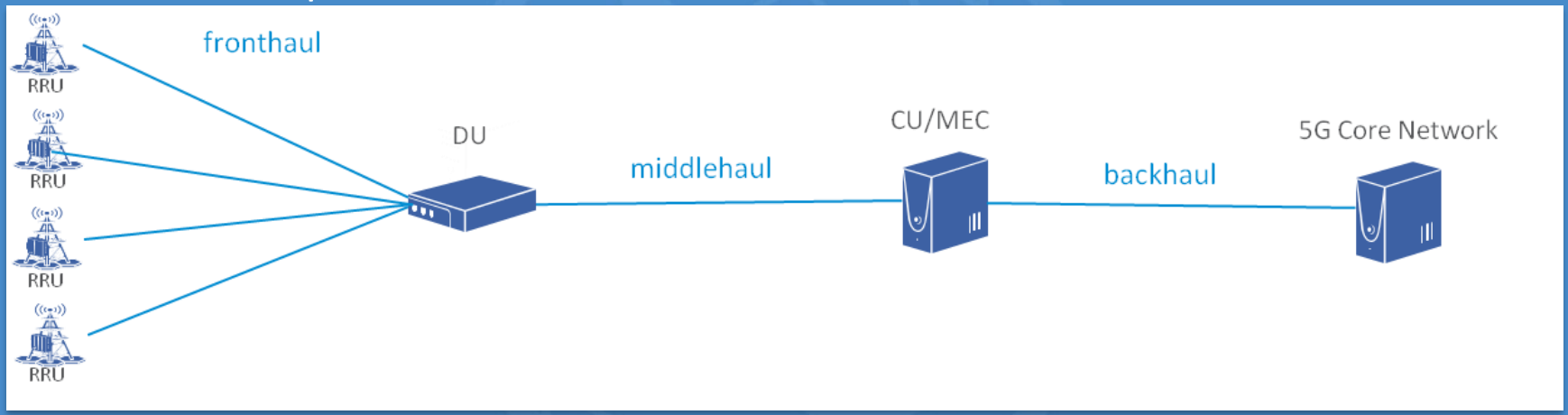
- Introduction
  - Stephen (Steve) Trowbridge
  - Chairman SG15 and workshop moderator
- Liaisons – 3GPP; IEEE802.1cm
- Presentations from Network Operators:
  - Kent G. MCCAMMON (AT&T)
  - Han LI (China Mobile)
  - Ruiqian (Rick) JING (China Telecom)
  - Richard Mackenzie (BT)
  - Noboru YOSHIKANE (KDDI)
  - Ruud van de BOVENKAMP (KPN)
- Panel discussion

SG15 overview

- WP1/15 Transport aspects of access, home and smart grid networks
- WP2/15 Optical technologies and physical infrastructures
- WP3/15 Transport network characteristics
  - Interfaces, OAM and equipment for OTN and packet-based transport networks
  - Protection/restoration
  - Network synchronization
  - Management and control
- Further details on the SG15 home page
  https://www.itu.int/en/ITU-T/studygroups/2017-2020/15/Pages/default.aspx

Workshop background

- IMT-2020/5G is predicted to be one of the major drivers for network expansion.
  - The requirements are not well understood in SG15



- Is this view correct?
- What are the requirements for the transport network to support the fronthaul; middlehaul and backhaul segments?
- These requirements may result in the selection of different transport technologies

SG15 current work program on IMT-2020/5G

- WP3/15, has started work on a Technical Report, TRGS-TN5G, on “Transport network support of IMT-2020/5G”
  - This will provide a reference models, deployment scenarios and requirements for a transport network to support each of the:
    - Fronthaul
    - Middlehaul
    - Backhaul networks
  - Requirements will include:
    - Topology, capacity, latency, synchronization, network slicing, control/management interfaces,
- WP1/15 has started work on a supplement
  - 5G Wireless Fronthaul Requirements in a PON Context

Plan for TRGS-TN5G

- Informative document to provide guidance to the development of the appropriate new Recommendations or revisions to or amendments of existing Recommendations to support IMT-2020/5G requirements
- Tentative time frame
  - February 2018
    - First version of TRGS-TN5G
      - Focus on “physical” aspects (capacity, reach etc.)
    - New work items initiated on normative Recommendations
  - October 2018
    - Update of TR-TN5G
      - Add further details on control/management; synchronization
      - Other updates as required
    - New work items if required

Workshop objective

- Understand Mobile Network Operator requirements for Transport Network support of IMT-2020/5G so that SG15 can develop the appropriate Recommendations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