

Source: **IEEE 1914 Next Generation Fronthaul Interface (NGFI) Working Group<sup>1</sup>**

To: Scott Mansfield, Ericsson  
Email: [scott.mansfield@ericsson.com](mailto:scott.mansfield@ericsson.com)

Ying Cheng, China Unicom  
Email: [chengying10@chinaunicom.cn](mailto:chengying10@chinaunicom.cn)

From: Jinri Huang, Chair, IEEE 1914 Next Generation Fronthaul Interface Working Group  
Email: [huangjinri@chinamobile.com](mailto:huangjinri@chinamobile.com)

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Subject: **Liaison to ITU-T JCA-IMT2020 in response to request on 5G-related activity update**

Dear Colleagues,

Many thanks for reaching us with your liaison “JCA-IMT2020-O-003\_LS on Invitation to update the information in the IMT2020 roadmap.doc”.

IEEE 1914 Next Generation Fronthaul Interface (NGFI) Working Group is devoted to specifying the architecture, requirements and solutions to 5G Fronthaul transport networks. There are currently two projects under 1914 WG, namely, 1914.1 and 1914.3 respectively. While the 1914.1 project is to develop the NGFI transport architecture and requirements, the 1914.3 is defining the specification of radio signal encapsulation into Ethernet packets.

The 1914.1 project has just had its draft specification almost ready and is about to start the Working Group ballot shortly. Meantime, the 1914.3 has successfully passed the Sponsor Ballot and we expect to have it published by IEEE by June of 2018.

More details on our WG could be found on: <http://sites.ieee.org/sagroups-1914/>

Below is our response to your information update request.

Activity domain	Stage (topic)	Area	Entity	Title of deliverable
5G	Use cases, Architecture, Requirements	Fronthaul transport	IEEE 1914 WG-1914.1 project	Standard for Packet-based Fronthaul Transport Networks
5G	Protocol	Fronthaul transport	IEEE 1914 WG-1914.3 project	Standard for Radio over Ethernet Encapsulations

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<sup>1</sup> This document solely represents the views of the IEEE 1914 Working Group, and does not necessarily represent a position of the IEEE, the IEEE Standards Association, or IEEE Communications Society.

				and Mappings
Scope of deliverable	Current status	Starting date	Target date	
P1914.1 standard specifies: 1) Architecture for the transport of mobile fronthaul traffic (e.g., Ethernet-based). 2) Requirements and definitions for the fronthaul networks, including data rates, timing and synchronization, and quality of service and so on. The standard also analyzes functional partitioning schemes between Remote Radio Units (RRUs) and Base-Band Units (BBUs) that improve fronthaul link efficiency and interoperability on the transport level, and that facilitate the realization of cooperative radio functions, such as massive Multiple-Input-Multiple-Output (massive MIMO) operational modes, Coordinated Multi-Point (CoMP) transmission and reception.	Stable draft specification finished. WG ballot to be started from April 10	2016.02	2018.12	
P1914.3 standard defines the encapsulation and mapping of radio protocols to be transported over Ethernet packets using Radio over Ethernet (RoE). Furthermore, both structure-agnostic and structure-aware definitions are provided for the most common and current radio protocol, Common Public Radio Interface (CPRI), as well as a native mode.	Sponsor ballot passed. Expected to be published by 2018 June. Meantime, 1914.3 phase 2 is under planning.	2015.01	2018.06	

We look forward to more communication and collaboration with you in the future.

Truly yours,

Jinri Huang, Chair, IEEE 1914 Next Generation Fronthaul Interface Working Group