Group	**IEEE 802 5G/IMT-2020 Standing Committee**	
Title	***Report on ITU-R WP 5D Meeting #24***	
Date Submitted	**2016-06-23**	
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Re:		
Abstract	This document contains a summary report on ITU-R WP 5D Meeting #24 of June 2016. The report is intended for the IEEE 802 5G/IMT-2020 Standing Committee and may be of interest to other groups within IEEE as well.	
Purpose	For information only.	
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Report on ITU-R WP 5D Meeting #24

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Abstract

This document contains a report on ITU-R WP 5D Meeting #24 of June 2016. The report is intended for the IEEE 802 5G/IMT-2020 Standing Committee and may be of interest to other groups within IEEE as well.

Background and Summary

Working Party 5D (WP 5D) held its Meeting #24 in Geneva on 14-22 June 2016. The Chairman's Report of the meeting will be available in ITU-R 5D/234. This was the second meeting of WP 5D in the new study period. For additional background, see *Report on ITU-R WP 5D Meeting #23* (IEEE 802-ec-16-0026-00-5GSG).

The attendance was approximately 220. There were 151 on government-led delegations, 24 representing operators, 49 representing other industry, 7 from associations, 2 from universities, and 2 staff. Some participants wear multiple hats. The numbers were comparable to the prior meeting, but this masks the fact that the Chinese administration delegation was down from the prior meeting (held in Beijing) from 38 to 10.

Many contributions were received; over 150 since Meeting #23, compared to 82 at Meeting #23.

IEEE submitted no contributions. No IEEE delegates attended the meeting. This report was developed based on the documentation, which was not complete at the time of the report.

Working Groups

WP 5D includes three Working Groups: WG General Aspects, WG Spectrum Aspects, and WG Technology Aspects. In addition, Ad Hoc Workplan helps to coordinate the activity.

WG General Aspects: Highlights

WG General Aspects initiated a new activity to create a report on the needs of "vertical" industries, including smart cities, smart homes, m-health, m-education, connected cars, railways, connected industrial automation, wearables, etc. A new sub-WG (SWG Usage) was created to develop the draft.

SWG Circular completed Addendum 1 to the Circular Letter on the IMT-2020 submission and evaluation process, with no surprises. It will be posted at the WP 5D web page <http://www.itu.int/ITU-R/go/rwp5d>.

WG Spectrum Aspects

SWG Work for TG 5/1 developed a liaison statement to external organizations, including IEEE, as a followup to a prior liaison statement, entitled "Updated characteristics of IMT systems for frequency sharing/interference analysis, 24.25-86 GHz." The statement again asks for initial system characteristics by October and final system characteristics by February 2017.

WG Technology Aspects

WG Technology Aspects included five sub-WGs (SWGs): SWG OOBE, SWG IMT Specifications, SWG Radio Aspects, SWG Coordination, and SWG Evaluation.

SWG IMT Specifications is concerned with maintenance of the existing IMT-2000 and IMT-Advanced standards, which are revised in alternate years. It concluded the development of Revision 13 of Rec. ITU-R M. 1457, the IMT-2000 standard. In the development of Revision 3 of the IMT-Advanced standard (Rec. ITU-R M. 2012), the SWG reviewed inputs from proponents indicating an intent to participate. No input was received from IEEE, so it was concluded that IEEE will not participate.

SWG Radio Aspects continued its work toward the development of a draft new Report, with the temporary designation M.[IMT-2020.TECH PERF REQ], to represent the IMT-2020 technical requirements. Initial agreement was achieved on definitions for 13 minimum technical performance requirement parameters, to be finalized at Meeting #25, along with the initial determination of values of those parameters. Contributions are encouraged.

The thirteen requirements parameters are

- Peak data rate
- Peak spectral efficiency
- User experienced data rate
- 5th percentile user spectral efficiency
- Average spectral efficiency
- Area traffic capacity
- Latency
    - User plane latency
    - Control plane latency
- Connection density
- Energy efficiency
- Reliability
- Mobility
- Mobility interruption time
- Bandwidth

SWG Evaluation continued its work toward the development of a draft new Report, with the temporary designation M.[IMT-2020.EVAL], to represent the IMT-2020 evaluation methodology. Discussion again focused on test environments, evaluation configurations and methodologies, deployment scenarios, and channel modelling.

The SWG agreed on three test environments for the eMBB usage scenario:

- Indoor hotspot

- Dense Urban
- Rural

along with one test environment for the mMTC usage scenario:

- Urban Macro

and one test environment for the URLLC usage scenario:

- Urban Macro

Three additional test environment/usage scenarios combinations are not yet agreed:

- High speed-eMBB (high speed trains up to 500km/h)
- Rural-mMTC
- Rural-URLLC (with high speed mobile stations)

The meaning of deployment scenarios continues to be unsettled.

Channel modeling was again discussed. Input from IEEE at the next meeting would be useful.

SWG Coordination continued with the development of a draft new report with the temporary name M. [IMT-2020.SUBMISSION], to represent the IMT-2020 submission process, procedures, and submission templates, and a related document. The work at this time is mostly editorial or procedural while the SWG awaits the technical output of the other SWGs. Eventually, some critical decisions will probably be made in the SWG and reflected in the process, most notably on operational requirements such as the required number of usage scenarios and test environments for an SRIT to be qualified for standardization. At Meeting #24, the first contribution on this topic was received and carried forward for further discussion. According to that proposal, from China, a RIT or SRIT will be accepted for inclusion in the standardization phase if it meets requirements of at least the following:

- X–1 test environments of the X eMBB test environments,
- at least one mMTC test environment, and
- at least one URLLC test environment.

China's contribution also proposed a major demand on a RIT proposal at the earlier qualification stage; namely, that it meet the requirements of at least two eMBB test environments, one mMRC test environment, and one URLCC test environment. Acceptance of a proposal like this would put a large, perhaps impenetrable, barrier in front of any proposal without the anticipated comprehensiveness of 3GPP.