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| itu_logo | **International telecommunication union****Telecommunication Standardization Bureau** |  |
|  | Geneva, 11 January 2016 |
| Ref: | **TSB Circular 191**FG IMT-2020/MA | - To Administrations of Member States of the Union;- To ITU-T Sector Members;- To ITU-T Associates;- To ITU Academia |
| Tel: | +41 22 730 6828 |
| Fax: | +41 22 730 5853 |
| E-mail: | tsbfgimt-2020@itu.int  | **Copy:**- To the Chairmen and Vice-Chairmen of all ITU-T Study Groups;- To the Director of the Telecommunication Development Bureau;- To the Director of the Radiocommunication Bureau;- To the Directors of ITU Regional Offices. |
| Subject: | **Extension of lifetime of ITU-T Focus Group on IMT-2020 (FG IMT-2020) with revised Terms of Reference and the Fifth meeting of FG IMT-2020, Seoul, Korea (Rep. of), 8‑11 March 2016** |

Dear Sir/Madam,

1 I am pleased to announce the extension of the lifetime of [**ITU-T Focus Group on IMT-2020**](http://www.itu.int/en/ITU-T/focusgroups/imt-2020/Pages/default.aspx) (FG IMT‑2020) with revised Terms of Reference further to the agreement by ITU-T Study Group 13 at its meeting in Geneva, 30 November – 11 December 2015.

2 The Focus Group was established in May 2015 to analyse how emerging 5G technologies will interact in future networks as a preliminary study into the networking innovations required to support the development of 5G systems. The group took an ecosystem view of 5G research of development and published the analysis in a [Report](http://www.itu.int/en/ITU-T/focusgroups/imt-2020/Documents/T13-SG13-151130-TD-PLEN-0208%21%21MSW-E.docx) to its parent group.

3 The revised Terms of Reference (see **Annex 1**) call for the group to engage open-source communities, influencing and taking advantage of their work by introducing them to the challenges that telecoms players must overcome in the development of the 5G ecosystem. Specific areas of work will include:​ network softwarization and information-centric networking; network architecture; fixed-mobile convergence; network slicing for the fronthaul/backhaul network; new traffic models and associated aspects of QoS and operations, administration and management applicable to IMT-2020 networks.

4 The Focus Group continues to operate under procedures set out in [Recommendation ITU‑T A.7](http://www.itu.int/rec/T-REC-A.7).

5 FG IMT-2020 is open to ITU Member States, Sector Members, Associates, Academia and to any individual from a country which is a member of ITU and who is willing to contribute to the work; this includes individuals who are also members or representatives of interested standards development organizations. Anyone interested in participation, updates and announcements related to the group is invited to [sign up here](https://www.itu.int/net4/iwm/?p0=0&p11=ITU&p12=ITU-SEP-ITU-T-SEP-Other%20Groups-SEP-fgimt-2020&p21=ITU&p22=ITU-SEP-ITU-T-SEP-Other%20Groups) (TIES or [free ITU Guest account](https://www.itu.int/net/iwm/public/frmUserRegistration.aspx) required).

# Fifth Meeting of FG IMT-2020

6 The fifth meeting of FG IMT-2020 is scheduled to take place **from 8 to 11 March 2016 at KT R&D Center in Seoul, Korea (Rep. of), kindly hosted by KT Corp.**

Meeting logistics information are available in **Annex 2**.

7 To enable ITU to make the necessary arrangements concerning the organization of the Focus Group meeting, please register as soon as possible, but **not later than 1 March 2016**. Please note that pre-registration of participants to the meeting is carried out exclusively *online*at <http://itu.int/en/ITU-T/focusgroups/imt-2020/>.To easily provide you with any updates concerning the meeting planning, please fill in your valid e-mail address on the registration form.

8 Remote participation will be available for the meeting. Detailed instructions will be made available to registered participants.

9 Information related to the meeting as well as the contributions received will be provided on the Focus Group website: <http://itu.int/en/ITU-T/focusgroups/imt-2020/>. The meeting will open at 0930 hours on 8 March 2016.

10 Input documents will be made publicly available for this meeting in English only. In preparing documents, please use the basic template available from the Focus Group web page.

11 The deadline for document submission for this meeting is **1 March 2016**. Please note that this is a paperless meeting.

12 We would remind you that citizens of some countries are required to obtain a visa in order to enter and spend any time in the Korea (Rep. of). The visa must be obtained from the office (embassy or consulate) representing the Korea (Rep. of) in your country or, if there is no such office in your country, from the one that is closest to the country of departure.

Yours faithfully,

Chaesub Lee
Director of the Telecommunication
Standardization Bureau

**Annexes: 2**

ANNEX 1

 (to TSB Circular 191)

# Terms of Reference of the continuation of Focus Group IMT-2020

## 1. Rationale and scope

The rapid adoption of mobile broadband services and growing expectations from users for superior mobile broadband experiences are motivating industry, academia and governments to explore how to meet these demands.

In early 2012, ITU embarked on a programme on *“International Mobile Telecommunications (IMT) for 2020 and beyond”*, setting the stage for IMT-2020 research, development, and marketing activities around the world.

ITU-T Study Group 13 is mandated to study the requirements, architectures, capabilities and mechanisms of future networks including mobile. There is a desire to establish an open platform for experts representing ITU members and non-members in order to gain deep understanding of the IMT-2020 agenda, from non-radio transmission related network perspective. Recognizing activities being undertaken around the world, it is necessary to identify the specific areas for ITU-T Study Group 13, in order for ITU-T Study Group 13 to make constructive contributions to IMT-2020, together with other standardization bodies. Note, This Focus Group will not have any radio transmission related aspects in its work scope.

At the current early stage of IMT-2020 journey, the outcomes of this Focus Group will consist of continuing to define the visions and objectives related to IMT-2020, in order to help progress and promote standardization by ITU-T Study Group 13 and other SDOs on IMT-2020.

With regard to specific tasks, the following areas have been identified as areas of study/activity:

1. Explore demonstrations or prototyping with other groups, notably the open source community;
2. Enhance aspects related to Networks softwarization and ICN;
3. Continue to refine and develop the IMT-2020 network architecture;
4. Continue the study of fixed mobile convergence aspects;
5. Continue to study network slicing for the front haul/back haul network;
6. Continue to define new traffic models and associated QoS and OAM aspects applicable to IMT-2020 networks.

## 2. ITU-T Focus Group on IMT-2020 (FG IMT-2020)

### 2.1 Objective

The objective of the Focus Group is to continue to refine network aspects related to IMT-2020 networks, and produce base material for the development of draft Recommendations to be approved by SG13, building upon the information produced during the standardization gap analysis of IMT-2020 networks. In addition, the Focus Group will undertake to begin to investigate demonstrating or prototyping network aspects related to the expected IMT-2020 architecture. This would include involvement of, and participation by, other groups, notably the open source community. The Focus Group continues to serve as an open platform for network architecture experts representing ITU members, academia and non-members to move forward in the IMT-2020 direction.

### 2.2 Specific tasks and deliverables

Subject to sufficient level of participation, the focus group may, at its discretion, reduce the scope to only those areas where there is sufficient critical mass to produce meaningful output.

#### 2.2.1 Demonstration and prototyping

This task will begin to investigate demonstration or prototyping various aspects of IMT-2020 networks. Note: At a minimum, output from the FG would be to produce a document that would indicate what type of work is needed, who can be involved, what existing demonstration platforms exist and how existing demonstrations or prototypes may fit within the work of the other subgroups within the FG.

#### 2.2.2 Network softwarization

This work will continue to refine aspects related to network softwarization, building on, or refining the output from the first Focus Group. Softwarization of the network has been studied in academia, this work will help identify issues that may exist in translating this from theory to application.

#### 2.2.3 Information centric networking (ICN)

The work will continue investigating the use of ICN approaches within the IMT-2020 goals. There is much academic and industrial work around ICN in the 5G context at this time. We will suggest experiments aimed at guiding the broader community in next steps that can help bridge the gap between the research and practical use of ICN in IMT-2020. The output of this work will be a document that describes those experiments and provides recommendations on how ICN can be adopted in IMT-2020.

#### 2.2.4 IMT-2020 network architecture

The work will produce base material for the development of draft Recommendations to be approved by SG13, based on the architecture work produced during the identification of standardization gaps as reported in the report of FG IMT-2020. The output of this work will be a document that describes in depth the network architecture needed to address identified architectural gaps.

#### 2.2.5 Fixed mobile convergence

Recognizing that a connected society in the years beyond 2020 will need to accommodate a similar user experience for end-users regardless of whether they are on the move or stationary, the new 5G standards aim at maintaining high quality service at high mobility, enabling the successful deployment of applications on a moving platform, such as in cars or high-speed trains.

Note: Fixed-mobile convergence will be covered as an essential component of network architecture (See 2.2.4, above).

#### 2.2.6 Network slicing for the front haul/back haul

This work will study and define the use of network slicing in the context of control of the front haul/back haul network. Note, that it is expected that the transport and equipment aspects of front haul and back haul networks will be performed by Study Group 15. The work of the Focus Group is limited to dealing only with control aspects.

#### 2.2.7 Network management aspects including QoS and OAM aspects

IMT-2020 is seen as enabling new applications not limited to requiring high bandwidth, low latency and diverse service requirements. This item will define new network management aspects for the IMT-2020 network, including any QoS or OAM aspects. The work will produce base material for the development of draft Recommendations to be approved by SG13.

### 2.3 Parent group

ITU-T Study Group 13 is the parent group of this Focus Group.

### 2.4 Relationships

The Focus Group will work in close cooperation with related ITU-T and ITU-R study groups, standards developing organizations, industry forums and consortia, research and development communities.

### 2.5 Leadership

See clause 2.3 of Recommendation ITU-T A.7.

### 2.6 Participation

See clause 3 of Recommendation ITU-T A.7. A list of participants will be maintained for reference purposes and reported to the parent group.

It is important to mention that the participation in this Focus Group has to be based on contributions and active participations.

### 2.7 General financing

See clauses 4 and 10.2 of Recommendation ITU-T A.7.

### 2.8 Administrative support

See clause 5 of Recommendation ITU-T A.7.

### 2.9 Meetings

The Focus Group will conduct regular meetings. Location and dates of the meetings will be determined by the Focus Group and announced by electronic means (e.g. e-mail, website, etc.) at least six weeks in advance.

The Focus Group will endeavour to utilise remote collaboration tools to the maximum extent. Focus Group meetings will be accompanied by thematic workshops as appropriate.

### 2.10 Duration and milestones of the Focus Group

The Focus Group lifetime is until the end of 2016. All deliverables will be considered by Study Group 13 at its first meeting in study period 2017-2020.

### 2.11 Working language

The working language is English.

### 2.12 Technical contributions

Contributions are to be submitted at least seven calendar days before the meeting takes place.

### 2.13 Intellectual property rights

See clause 9 of Recommendation ITU-T A.7.

### 2.14 Approval of deliverables

Approval of deliverables shall be taken by consensus.

### 2.15 Progress reports

See clause 11 of Recommendation ITU-T A.7.

### 2.16 Announcement of Focus Group formation

The formation of the Focus Group will be announced via TSB Circular to all ITU membership, via the ITU-T Newslog and other means, including communication with the other involved organizations.

### 2.17 Working guidelines

See clause 13 of Recommendation ITU-T A.7.

ANNEX 2

(to TSB Circular 191)

# Fifth meeting of ITU-T FG IMT-2020:

# Seoul, Korea (Rep. of), 8-11 March 2016

## Practical information for participants

### 1 Event venue

**KT R&D Center**

Address: 151 Taebong-ro
Seocho-gu
Seoul
Korea (Rep. of)
137-792

### 2 Hotels

**The K-Hotel Seoul**

* + Address: 70, Baumoe-ro 12-gil, Seocho-gu, Seoul
	+ Web: <http://www.thek-hotel.co.kr/e_seoul/main.asp>
	+ Tel: +82 2-571-8100
	+ E-mail: reservation@thek-hotel.co.kr
	+ USD 160.00 per night, WIFI and VAT included
	+ Check in after 02:00 PM. Check out before 12:00 PM
	+ Reservation by phone or e-mail mentioning ITU Meeting hosted by KT

### 3 Arrival and transportation

Information about the connection from Seoul Incheon International Airport (ICN) can be found at <http://www.airport.kr/pa/en/a/index.jsp>.

### 4 Visa – Formalities for entering Korea (Rep. of)

We would remind you that citizens of some countries are required to obtain a visa in order to enter and spend any time in Korea (Rep. of). The visa must be requested and obtained from the office (embassy or consulate) representing Korea (Rep. of) in your country or, if there is no such office in your country, from the one that is closest to the country of departure. Please be aware that visa approval might take time so kindly make your visa request as soon as possible.

Should you require a personal letter of invitation for your business visa application, please see Appendix A. Your complete request should be sent out **before 8 February 2016**. For detailed information, please visit <http://www.mofa.go.kr/ENG/main/index.jsp>.

### 5 Currency and exchange

The official currency of Korea (Rep. of) is KRW. The approximate exchange rate is: 1 USD = 1203 KRW (may vary).

### 6 Language

National language is Korean. The official working language of the meeting is English.

### 7 Climate

The climate in Seoul is Continental. In March the average day time temperature is about 0-7 ⁰C with lows in the range -5-5 ⁰C.

### 8 Local time

Standard Time Zone: UTC/GMT +9 Hours

### 9 Telecommunications

The area code for Seoul is +82 2.

### 10 Electricity

The electricity in South Korea is **220V**. Please be sure you have the correct adapter. Voltage converters will **not** be provided at the meeting.



*Image of the sockets*

### 11 Health

No vaccinations are required.

### 12 Internet connectivity

Internet connection will be available at the meeting venue. Payment may be required at certain hotels.

### 13 Contact

For any further questions, please contact:

**Olivia Heeyun Choi**KT Corp.
E-mail: heeyun.choi@kt.com
Tel: +82-10-6889-3092

APPENDIX A

(to TSB Circular 191)

# Fifth meeting of ITU-T FG IMT-2020:

# Seoul, Korea (Rep. of), 8-11 March 2016

## Invitation letter request form

***Please do not forget to attach a copy of your passport photograph page before sending. Please send your application form in WORD file before 8 February 2016.***

To enter Korea (Rep. of) for the meetings indicated above, you may need a letter of invitation from the host, which you will need to present to the Embassy/Consulate in your area in order to obtain your visa. In order to obtain the invitation letter, please:

1. fill out the form below;
2. provide a scanned copy of your passport (the name, date of birth, nationality, passport number, passport validity date, etc. must be seen clearly; to ensure readability; a scanned photograph page is preferred);
3. provide a scanned copy of the latest South Korea visa (one or two records) if your entry is not the first time; and
4. send all of the above via email to ***heeyun.choi@kt.com*** before **8 February 2016.**

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| --- | --- |
| Full name of Company |  |
| Surname |  | Given name |  |
| Gender | □ Male □ Female |
| Birthday (YYYY-MM-DD) |  | Nationality |  |
| Tel No. |  | Job Title |  |
| Passport No. |  | Place of Issue Passport |  |
| Expired Date of Passport (YYYY-MM-DD) |  |
| Destination Country/Area & City/ Places to visit after entry (In this case, it is Seoul by default; if you want to visit other places than Seoul, please indicate here) |
| Country |  | City |  |
| Visa Issued Country/Area & City (If the country in which you'll obtain your visa is different from your nationality, please indicate it here:[ Country to obtain your visa]) |
| Country |  | City |  |
| Duration (YYYY-MM-DD) |
| From |  | To |  |
| Purpose |
| Address |  |
| Fax No. |  |
| E-mail |  |

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