Radiocommunication Study Groups

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Working Party 5D

PROCESS AND THE USE OF GLOBAL CORE SPECIFICATION (GCS), REFERENCES AND RELATED CERTIFICATIONS IN CONJUNCTION WITH RECOMMENDATION ITU-R M.[IMT.RSPEC]

Scope

This document provides information on the process and use of the Global Core Specification (GCS)[1], references, and related notifications and certifications that are to be provided to ITU-R in conjunction with the initial release and subsequent revisions of Recommendation ITU-R M.[IMT.RSPEC] ("Detailed Specifications of the Radio Interfaces of IMT-Advanced"). In addition, this document defines specific terminology for the ***RIT/SRIT Proponent,*** the ***GCS Proponent***, and the ***Transposing Organization[2]*** in conjunction with the development and on-going updates of the Recommendation.

I) The continued use of the concept of Global Core Specification (GCS) and References

Recommendation ITU-R M.[IMT.RSPEC] contains the detailed specifications of the radio interfaces of IMT-Advanced. The structure and philosophy adopted for M.[IMT.RSPEC] for IMT-Advanced is based on that used in Recommendation ITU-R M.1457 for IMT-2000, which has been successfully utilized for almost a decade through numerous revisions of Recommendation ITU-R M.1457.

A key concept is the continued use of the Global Core Specification (GCS) provided by the ***GCS Proponent*** and references to standards[3] of ***Transposing Organization(s)*** authorized by the ***GCS Proponent*** whereby the detailed standardization is undertaken within the ***Transposing Organization*** that operates in concert with the ***RIT/SRIT Proponent*** and/or ***GCS Proponent*** entities.

[1] A "GCS" (Global Core Specification) is the set of specifications that defines a single RIT, an SRIT, or a RIT within an SRIT.

[2] The terminology ***"RIT/SRIT Proponent"***, "***GCS Proponent***" and ***"Transposing Organization"*** are explained in Section III of this document.

[3] The term "standards" as used herein applies equally to specifications developed by accredited Standards Development Organizations (SDOs) or by other entities.

The relationship between the GCSs for IMT-Advanced radio interfaces and the corresponding transposed standards is such that the GCSs are the framework for their corresponding detailed transposed specifications. Recommendation ITU-R M.[IMT.RSPEC] may also include references to specific related standards of the ***Transposing Organizations***. There may be one or more entities that exist within a ***GCS Proponent*** for a given GCS.

It is also permissible to not have a separate GCS for a particular technology, in which case all the detailed specifications of that particular technology (the Directly Incorporated Specification[4]) would be fully contained directly within the Recommendation ITU-R M.[IMT.RSPEC].

This understanding of whether a GCS would or would not be utilized in the context of a particular technology within Recommendation ITU-R M.[IMT.RSPEC] is necessary so that the proper structure and content of the Recommendation is chosen to properly reflect the technology specifications.

Consequently, the ***RIT/SRIT Proponent*** is requested to indicate at an early stage to the ITU-R its preliminary intention to submit a Global Core Specification, in advance of the required formal certifications, which will be used to form the basis of information in the Recommendation ITU-R M.[IMT.RSPEC].

The ITU-R (WP 5D) will review any GCS or DIS submission(s) and agree/approve or suggest changes in conjunction with the development and the ultimate approval by ITU-R of the final published version of Recommendation ITU-R M.[IMT.RSPEC] and the established schedules.

ITU-R (WP 5D and/or the Radiocommunication Bureau) will maintain liaison with the relevant External Organizations ***(RIT/SRIT Proponents, GCS Proponents,*** and ***Transposing Organizations)*** on the required deliverables and also the relevant schedules and administrative matters associated with the various stages of the development of the Recommendation ITU-R M.[IMT.RSPEC] and its revisions over time.

II) Respecting the integrity of the GCSs and ensuring that the transposed standards are consistent with the GCS

To assure users of Recommendation ITU-R M.[IMT.RSPEC] of the integrity of the GCS for a particular technology, and to ensure that the transposed standards are consistent with the common globally agreed vision of IMT-Advanced, completeness and traceability of the GCS and the transposed standards is a foremost obligation of the ITU-R.

As noted above, the IMT-Advanced specifications could be developed around a "Global Core Specification" (GCS), which is related to externally developed materials incorporated by specific references for a specific technology. The submitted GCSs as accepted by WP 5D for inclusion in Recommendation ITU-R M.[IMT.RSPEC] will be placed on the relevant ITU website and indicated by hyperlinks in each relevant technology Section of Recommendation ITU-R M.[IMT.RSPEC].

Thus the GCS provided by the ***GCS Proponent*** would form the nucleus of Recommendation ITU-R M.[IMT.RSPEC]. For each radio interface technology in Recommendation ITU-R M.[IMT.RSPEC] (whether presented as a single RIT or as one of the RITs within an SRIT) there will be only one corresponding GCS. A GCS will have one or more ***GCS Proponents***. Each RIT within a SRIT may be separately addressed with regard to its GCS and the associated ***GCS Proponents***.

[4] A "DIS" (Directly Incorporated Specification) is the set of detailed technical specifications/standards that are directly written in the Recommendation ITU-R M.[IMT.RSPEC], in the case of not utilizing a GCS and therefore not requiring transposed standards.

Each GCS would correspond to separate sets of ***transposed*** standards/specifications from one or more individual standards development organizations or equivalent entities. For each separate set of transposed standards/specifications, there will be only one ***Transposing Organization***.

The referenced standards of the authorized ***Transposing Organizations*** must be technically consistent with the corresponding GCS while allowing a limited amount of flexibility to accommodate minimal regional differences. An example of a regional difference would be a regional adjustment for differing frequency bands. Adherence to this format and principle assures a common global standard for IMT-Advanced as codified in Recommendation ITU-R M.[IMT.RSPEC] including the external materials incorporated by reference.

The receipt of information with regard to Recommendation ITU-R M.[IMT.RSPEC] that is related to a business relationship of the ITU and the relevant external organizations complements and support activities such as the technical work under the purview of the relevant Study Group within the ITU. It must be noted that where this document addresses administrative matters it does not intend to usurp the Study Group or Working Party authority but merely seeks to provide additional critical information to the deliberations on Recommendation ITU-R M.[IMT.RSPEC] as to the individual or collective intent and/or actions of the ***RIT/SRIT Proponents, GCS Proponents***, and/or ***Transposing Organizations*** that support a particular technology, a corresponding GCS, and the related transposed standards.

III) Use of the terminology "RIT/SRIT Proponent", "GCS Proponent" and "Transposing Organization"

"RIT/SRIT Proponent"

The ***RIT/SRIT Proponent*** is the single entity or collective entity that proposes a new RIT/SRIT as a candidate radio interface technology for the IMT-Advanced process.

This view is borne out by the following:

From Document IMT-ADV/2(Rev.1) under Step 3, the text indicates a view of "proponent":

> The proponents of RITs or SRITs may be Member States, Sector Members, and Associates of ITU-R Study Group 5, or other organizations in accordance with Resolution ITU-R 9-3.", and " The entity that proposes a candidate RIT or SRIT to the ITU-R (the proponent)...."

"GCS Proponent"

The generic term for the single entity or collective entity that provides a GCS or a DIS of an IMT-Advanced technology, as included in ITU-R Recommendation ITU-R M.[IMT.RSPEC], is "***GCS Proponent***".

The **GCS *Proponent***[5]:

1) must be one of the **RIT/SRIT Proponents** for the relevant technology, **and**

2) must have legal authority to grant to ITU-R the relevant legal usage rights to any of the following:

[5] ITU-R Resolution 9-3 ("Liaison and collaboration with other relevant organizations, in particular ISO and IEC") and also the ITU-R "Guidelines for the contribution of material of other organizations to the work of the Study Groups and for inviting other organizations to take part in the study of specific matters (Resolution ITU-R 9-3)" may also apply in the context of this definition. (http://www.itu.int/ITU-R/index.asp?category=study-groups&rlink=liaison-organisations&lang=en)

– the relevant specifications provided within a GCS corresponding to a technology in Recommendation ITU-R M.[IMT.RSPEC], or

– when no GCS is provided, the DIS in the Recommendation ITU-R M.[IMT.RSPEC].

"Transposing Organization"

A ***Transposing Organization*** is an individual entity authorized by a ***GCS Proponent*** to transpose the relevant GCS into specific standards and to provide specific references and hyperlinks for the purposes of Recommendation ITU-R M.[IMT.RSPEC].

A ***Transposing Organization***[6]:

1) must have been authorized by the relevant ***GCS Proponent*** to produce transposed standards for a particular technology, **and** 2) must have the relevant legal usage rights.

It is noted that the entity or entities that make up a ***GCS Proponent*** may also be a ***Transposing Organization***.

It should also be noted that the term ***Transposing Organization*** is always indicated to be a single entity. It is also noted that, for the purposes of Recommendation ITU-R M.[IMT.RSPEC], the ITU-R will only recognize as valid those ***Transposing Organizations*** that have been identified to the ITU-R by the ***GCS Proponent*** as authorized to transpose the ***GCS Proponent's*** GCS.

Neither a **GCS *Proponent*** nor a ***Transposing Organization*** need be a formal "Standards Development Organization" or "SDO". For example, "SDO" here could represent an industry entity, organization, individual company, etc. that, if applicable, also qualifies appropriately under the auspices of ITU-R Resolution 9-3 and the ITU-R "Guidelines for the contribution of material of other organizations to the work of the Study Groups and for inviting other organizations to take part in the study of specific matters (Resolution ITU-R 9-3)".

[6] ITU-R Resolution 9-3 ("Liaison and collaboration with other relevant organizations, in particular ISO and IEC") and *also specifically Section 3.2* of the ITU-R "Guidelines for the contribution of material of other organizations to the work of the Study Groups and for inviting other organizations to take part in the study of specific matters (Resolution ITU-R 9-3)" may also apply in the context of this definition. (http://www.itu.int/ITU-R/index.asp?category=study-groups&rlink=liaison-organisations&lang=en)

IV) Procedural aspects to be addressed by *RIT/SRIT Proponent, GCS Proponent and Transposing Organizations*[7]

The notifications and certifications delineated below follow a similar procedure successfully utilized for Recommendation ITU-R M.1457.[8]

Form A is an advance notification to ITU-R that the ***RIT/SRIT Proponent*** intends to become a ***GCS Proponent*** and to provide a GCS (or possibly multiple GCSs in case of an SRIT) or the DIS that will form the basis of a technology in the Recommendation ITU-R M.[IMT.RSPEC]. Certification B provides an indication of the views of the ***GCS Proponent*** with regard to the use of a GCS or DIS and also identifies the authorized ***Transposing Organization(s)*** when applicable in the case of utilizing a GCS. Certification C is the statement by the *Transposing Organization(s)* provided with the delivery of the relevant references (hyperlinks) that they have complied with the intentions indicated in Certification B.

It is anticipated that the different notifications/certifications will be required at differing points in time in the process of completing either the initial release or subsequent revisions of Recommendation ITU-R M.[IMT.RSPEC]. In general, the timing of the required material is defined to have sufficient interval to permit the ***RIT/SRIT Proponents,*** the ***GCS Proponents*** and the ***Transposing Organizations*** to accomplish the required work in their own organizations following their typical meeting and developmental cycles. The timing also provides consideration for the typical meeting cycles of Working Party 5D and ITU-R in general and the work time required to develop the Recommendation in its draft and final stages to meet the defined ITU-R deliverable schedules.

The specific details of the schedule for these certifications for any particular version of the Recommendation will be provided in separate ITU-R documents.

It should be noted that when a GCS is provided by the ***GCS Proponent*** it communicates the intention that at least one set of transposed standards/specifications would be provided to the ITU-R by a *Transposing Organization* by the required deadline in order for a particular radio interface technology to be fully complete within the Recommendation ITU-R M.[IMT.RSPEC]. It is recognized that a single entity may act as both the ***GCS Proponent*** and the ***Transposing Organization*** and could provide the GCS itself as the set of transposed standards or specifications.

Working Party 5D will always, under the process of creating or revising Recommendation ITU-R M.[IMT.RSPEC], perform a final quality and consistency check of the draft new or revised Recommendation in its final published form (which includes all references) as part of reaching final agreement to forward the finalized draft new or revised Recommendation to the appropriate Study Group 5 meeting for action.

[7] In these procedural aspects and certifications, it is noted that the responses of the ***RIT/SRIT Proponent*** or the ***GCS Proponent***, in accord with the terminology in Section III, refers to responses provided by a single entity in the case of a ***RIT/SRIT Proponent*** or the ***GCS Proponent*** with one constituent entity, or may be multiple responses in the case of a ***RIT/SRIT Proponent*** or the ***GCS Proponent*** with a multiplicity of constituent entities. Optionally, in the case of a ***RIT/SRIT Proponent*** or the ***GCS Proponent*** with a multiplicity of constituent entities, a single consolidated response indicating the positions/responses of each of the constituent entities may alternatively be provided.

[8] Document IMT/1(Rev.2).

Form A: Notification of intention to provide a GCS or DIS for a new radio interface

The ***RIT/SRIT Proponent*** is requested to notify the ITU-R in due time, sufficiently before the requirement to provide Certification B, of its intention to provide a Global Core Specification (or possibly multiple GCSs in case of an SRIT) or the DIS that will be used to form the basis of Recommendation ITU-R M.[IMT.RSPEC]. This understanding of whether a GCS or DIS will be provided will assist the ITU-R in developing the structure and content of the Recommendation to reflect the technology specifications.

Certification "B": Provision of a Global Core Specification or DIS and Certification of Consistency of the GCS or DIS with the technology submission

The ***GCS Proponent*** formally certifies to the ITU-R that the Global Core Specification (or possibly multiple GCSs in case of an SRIT) or the DIS provided to form the basis of information in the Recommendation ITU-R M.[IMT.RSPEC] is consistent with the technology submission, as it has been accepted during the IMT-Advanced process for either a new or an updated radio interface technology, for those technologies that will be included in either the initial or revised versions of Recommendation ITU-R M.[IMT.RSPEC].

The ***GCS Proponent*** in this certification also specifies to the ITU-R which entities it authorizes to develop transposed standards/specifications in the case of a GCS being utilized.

Certification "C": Certification of transposition and references by the *Transposing Organization*

The ***Transposing Organization's*** transposed standards/specifications must be technically consistent with the GCS while allowing a limited amount of flexibility to accommodate minimal regional differences. The ***Transposing Organization*** formally certifies to the ITU-R its development of the transposition and also confirms to the ITU-R the corresponding detailed references (hyperlinks) to these transposed materials.

The ***Transposing Organization*** also certifies to the ITU-R that its transposed standards/specifications are consistent with the relevant GCS submitted by the ***GCS Proponent***.

(V) Forms to be utilized for the required notifications/certifications

The required forms to be utilized in conjunction with the necessary notifications/certifications are included in the indicated Annexes.

Annex 1 Form "A": Notification of Intention to Provide a Global Core Specification or Directly Incorporated Specification for Recommendation ITU-R M.[IMT.RSPEC]

Annex 2 Certification "B": Provision of a Global Core Specification or Directly Incorporated Specification for Recommendation ITU-R M.[IMT.RSPEC] and Certification of Consistency of the GCS or DIS with the Technology Submission

Annex 3 Certification "C": Transposition of GCS and Provision of References for Recommendation ITU-R M.[IMT.RSPEC].

ANNEX 1

Form "A"
Notification of intention to provide a Global Core Specification or Directly Incorporated Specification for a new radio interface for Recommendation ITU-R M.[IMT.RSPEC]

Date: <***ENTER DATE***>

To: ITU-R

From: <***ENTER INFORMATION HERE (full particulars and contact information>)***

The undersigned, a duly authorized representative of

<INSERT ORGANIZATION NAME> (the "*RIT/SRIT PROPONENT*")

informs the ITU-R of its intent to be a ***GCS Proponent*** and (choose one)

_____to provide a Global Core Specification (or possibly multiple GCSs in case of an SRIT) for Recommendation ITU-R M.[IMT.RSPEC].

Or

_____ to provide a Directly Incorporated Specification for Recommendation ITU-R M.[IMT.RSPEC]

Signed,

<ENTER SIGNATURE
AND PARTICULARS OF THE DULY AUTHORIZED REPRESENTATIVE>

ITU-R Contact: Colin Langtry
Counsellor, ITU-R SG 5
colin.langtry@itu.int

ANNEX 2

Certification "B"
Provision of a Global Core Specification or Directly Incorporated Specification for Recommendation ITU-R M.[IMT.RSPEC] and Certification of Consistency of the GCS or DIS with the technology submission

Date: <***ENTER DATE***>

To: ITU-R

From: <***ENTER INFORMATION HERE (full particulars and contact information>)***

The undersigned, a duly authorized representative of

<**INSERT ORGANIZATION NAME**> (the ***"GCS PROPONENT"***)

affirms its intentions with regard to material submitted to the ITU-R ***(INSERT SOURCE OF SUBMISSION. e.g., submitter and relevant document numbers)*** *as indicated by the responses below with regard to:*

PROVISION OF A GLOBAL CORE SPECIFICATION OR DIRECTLY INCORPORATED SPECIFICATION FOR RECOMMENDATION ITU-R M.[IMT.RSPEC] AND CERTIFICATION OF CONSISTENCY OF THE GCS or DIS WITH THE TECHNOLOGY SUBMISSION (See Note 1)

Both sections below (Certification of Consistency and Identification of authorized Transposing Organizations for the GCS) must be completed.

Section 1: Certification of Consistency of the GCS or DIS with the technology submission:

(Choose one)

B-1)_ _____(Certification for a New IMT-Advanced Radio Interface Technology for first time inclusion in Rec. ITU-R M.[IMT.RSPEC]) The ***GCS Proponent*** certifies to the ITU-R that the Global Core Specification(s) or Directly Incorporated Specification submitted to form the basis of information in the Recommendation ITU-R M.[IMT.RSPEC] is consistent with the candidate technology submission as it has been accepted for Step 8 of the IMT-Advanced process for those technologies that will be included for the first time in either the initial or revised versions of Recommendation ITU-R M.[IMT.RSPEC].

B-2) _____ (Certification for a Revision of an existing IMT-Advanced Radio Interface Technology in Rec. ITU-R M.[IMT.RSPEC]) The ***GCS Proponent*** certifies to the ITU-R that the Global Core Specification(s) or the Directly Incorporated Specification submitted to form the basis of information in the Recommendation ITU-R M.[IMT.RSPEC] is consistent with the revision to the radio interface technology as it has been accepted by the IMT-Advanced update process for those technologies that will be included in a revised version of Recommendation ITU-R M.[IMT.RSPEC].

Section 2: Identification of authorized Transposing Organizations for the case where a GCS is utilized

The ***GCS Proponent*** notifies the ITU-R that the following entities are authorized to develop transposed standards and/or specifications corresponding to the submitted GCS(s) and to appropriately provide hyperlinks to these transposed standards/specifications to the ITU-R for the use in Recommendation ITU-R M.[IMT.RSPEC].

<NOTE - Include list of all authorized *Transposing Organizations* and relevant contact information for each.>

Note 1: In these procedural aspects and certifications, it is noted that the responses of the ***GCS Proponent***, in accordance with the terminology in Section III of Document ITU-R IMT-ADV/24, refers to responses provided by a single entity in the case of a ***GCS Proponent*** with one constituent entity, or may be multiple responses in the case of a ***GCS Proponent*** with a multiplicity of constituent entities. Optionally, in the case of a ***GCS proponent*** with a multiplicity of constituent entities, a single consolidated response indicating the positions/responses of each of the constituent entities may alternatively be provided.

Signed,

<***ENTER SIGNATURE***
AND PARTICULARS OF THE DULY AUTHORIZED REPRESENTATIVE>

ITU-R Contact: Colin Langtry
Counsellor, ITU-R SG 5
colin.langtry@itu.int

ANNEX 3

Certification "C"
Transposition of GCS and provision of references for Recommendation ITU-R M.[IMT.RSPEC]

Date: <***ENTER DATE***>

To: ITU-R

From: <***ENTER INFORMATION HERE (full particulars and contact information>)***

The undersigned, a duly authorized representative of

<**INSERT ORGANIZATION NAME**> (the "**TRANSPOSING ORGANIZATION**")

affirms its intentions with regard to material submitted to the ITU-R ***(INSERT SOURCE OF SUBMISSION. e.g., submitter and relevant document numbers)*** *as indicated by the responses below with regard to:*

TRANSPOSITION OF GCS AND PROVISION OF REFERENCES

(Choose one)

C-1_____Transposing Organization provides to the ITU-R the corresponding detailed references (hyperlinks) for the GCS(s) submitted by the GCS Proponent **<INSERT NAME OF GCS PROPONENT and indicate the specific GCS by document number or other identifying means >** and certifies to the ITU-R that the transposed standards/specifications maintain close consistency with this GCS(s). (see Note 1)

C-2_____ Transposing Organization does not provide references (hyperlinks) to the ITU-R for the GCS submitted by the GCS Proponent **<INSERT NAME OF GCS PROPONENT and indicate the specific GCS by document number or other identifying means >.**

Note 1: ***Transposing Organization*** shall clearly indicate the specific text of any differing/exception material (e.g., regional differences).

Signed,

<***ENTER SIGNATURE***
AND PARTICULARS OF THE DULY AUTHORIZED REPRESENTATIVE>

ITU-R Contact: Colin Langtry
Counsellor, ITU-R SG 5
colin.langtry@itu.int