

5GIF

National Workshop on Learnings from WRC-23 and the way forward Planning for WRC-27 and forthcoming ITU and APT meetings

Thursday, 22nd February, 2024
Hotel Hyatt Centric, MG Road, Bangalore





About 5GIF

- An industry collaborative forum, established to enable synergizing the national efforts and play a significant role in shaping the strategic, commercial and regulatory development of the 5G ecosystem in India.
- We promote technologies developed by the 3GPP that are general purpose in nature.
- A trusted partner for the research community, the regulators, and to companies representing both ICT development and a broad range of ICT user fields for knowledge dissemination, training and know how on 6G.



SGIF Vision for Indian Leadership in the 6G Ecosystem

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Several types of foundational technologies will collectively drive the core development of 6G

- Expanding network capacity to approach or even to try and go beyond the shannon's and Moore's limits will be required for radio themes
- smart optical transport connectivity will allow the network to be always available, intrinsic secure, green, and with flexible scaling
- Advances in photonic integration will pave the way for a raft of new IT and networking devic in which optical, radio frequency, and digital electronic functions, can be combined
- Modern security and reliability paradigms ("security by design"), as well as the applicatio
 modern software technology, will guarantee the dependability and trustworthiness of
- New electronic technologies, components, and devices, including processors, memorial
 analogue, radio frequency, digital access and cross-connect systems and analogue to digit
 converters accessors, rackwards and optical components, will be revised.
- converters antennas, packaging, and optical components, will be required
 The exploitation of properties from quantum mechanics needs to be explored to understather potential for unprecedented performance in quantum sensing, communication, secun and computation

rest tertodig technologies will film the bisis for human-certor services as well as a key realizer warrisk addressing discussed bevelopment (seels 1500) as his greating the encoriney and apportung digital inclusion. To make the happen, ambitious 560 progress have started across contained an experiment of the services of the services of the services of the services started and the services of the services of the services of the services of the services started and the services of the services of the services of the services of the services again in facilities of the services of the services of the services of the services again in facilities of the services of the services of the services of the services the services of the services of the services of the services of the services the services of the services the services of the services of the services of the services the services of the services of the services the services of the services of the services the services and the services and services of the services the services and services that and services the services the services and services that and services the services of the services as substitutes of the services and services that services are services of the services and services and the services of the services and services are services as services and services are services as services and services are services as services as the services are services as services and services are services as services as services as services as services as services as services are services as services as services as services are services as services as services are services as services as services are services as services are services as services as servic

sion Objectives

as SGIT Vision for file is for Include to emerge as a global leader and desired partner for SS adoption roots industry verticals and SG technology or creation. Over the next decade we envision defining a elembled digital world stowards 2000, aligned with the UH SSGs, where the physical and virtual elembled specific and virteless connectivity expands to all areas of life. We will coordinate with industry in fifting the use cases and help creation of technology across the public and privatory funded research.

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5GIF Engagements



- Improve the visibility of 3GPP technologies amongst Indian stakeholders and regulatory bodies
 - Technical activities including the generation of Technical Reports, performance studies and drafting Recommendations
 - IMT-2020 Technology Evaluation
 - Facilitating the 3GPP meetings in India and 3GPP knowledge dissemination

5GIF Working Groups	
6G Technology	Spectrum studies
Vertical Industries	Technology Evaluation

- 6G Initiatives and engagements in India
- Contributions towards IMT-2030 in ITU-R, through the NSG5
- WRC-23 & WRC-27 preparation and technical studies for National preparatory committees

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Recap of 5GIF activities in previous cycle

- Inputs to TIG 6G (Bharat 6G) Committee (including Spectrum) related to studies
- Inputs to AWG on 7-24 GHz Questionnaire
- Inputs to APG / NPC on WRC27 Agenda items in 7-24 GHz bands
- Contributions to NSG5 and NPC on WRC23 agenda items during 2019-2023 cycle
 - IMT Parameters
 - Sharing Studies on multiple agenda items
- 5GIF representation in multiple workshops and events
- Other 5GIF contributions where WG Spectrum was involved
 - 5GIF contributions to TEC reports on IoT / V2X

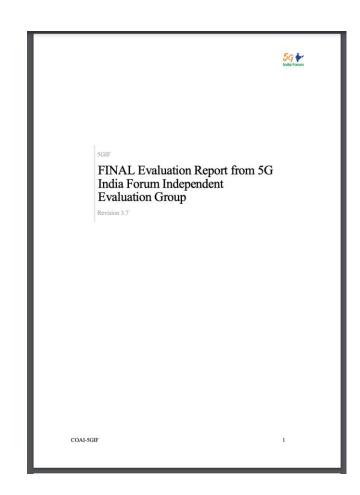
5GIF – Technology Evaluation

Evaluation of Candidate Technology of IMT-2020

3GPP NR, LTE DECT NR-2020 EUHT from NuFront

Satellite Component of IMT-2020 (WP4B)

3GPP NTN



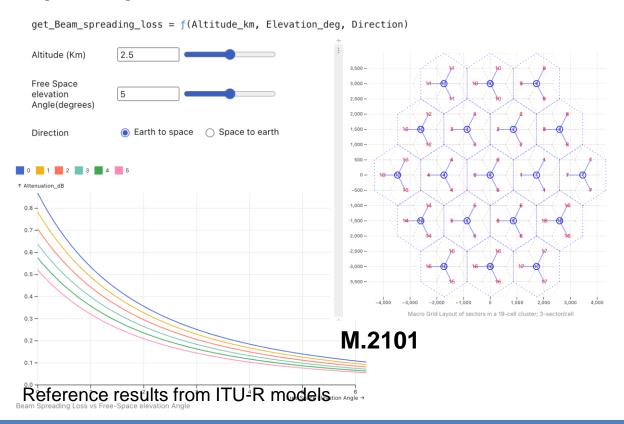
ITU-R Propagation models : P.619, P.2108, P.1812

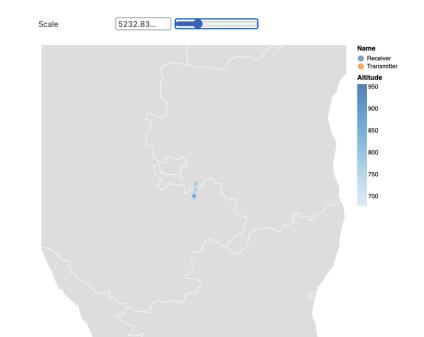


ITU-R P.619

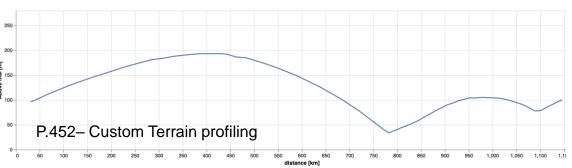
A. Prediction of beam Spreading Losses

Inputs For Sample Calculation



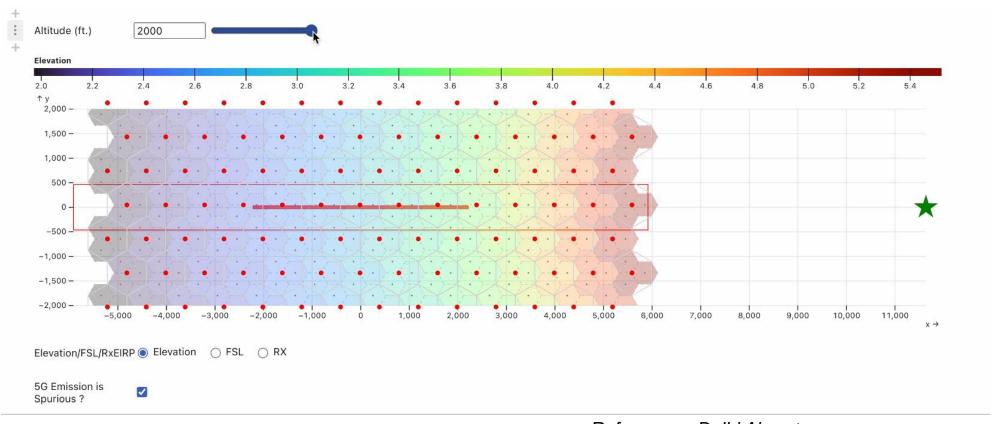


P.1812 – Terrain profile – Tx-Rx Locations



Studying Altimeter case

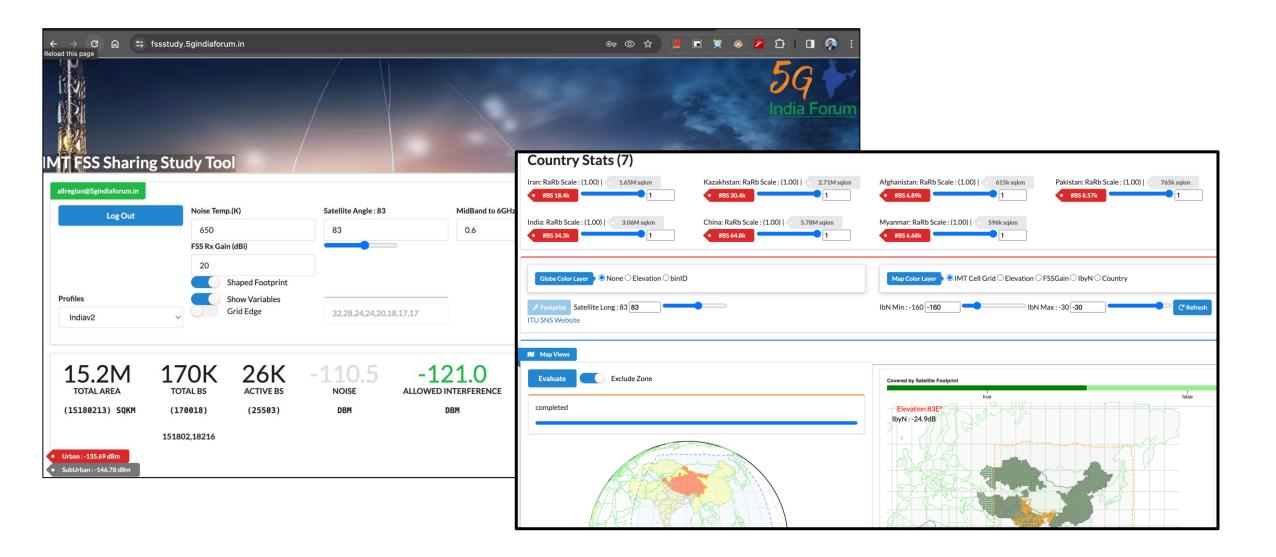




Reference – Delhi Airport runway

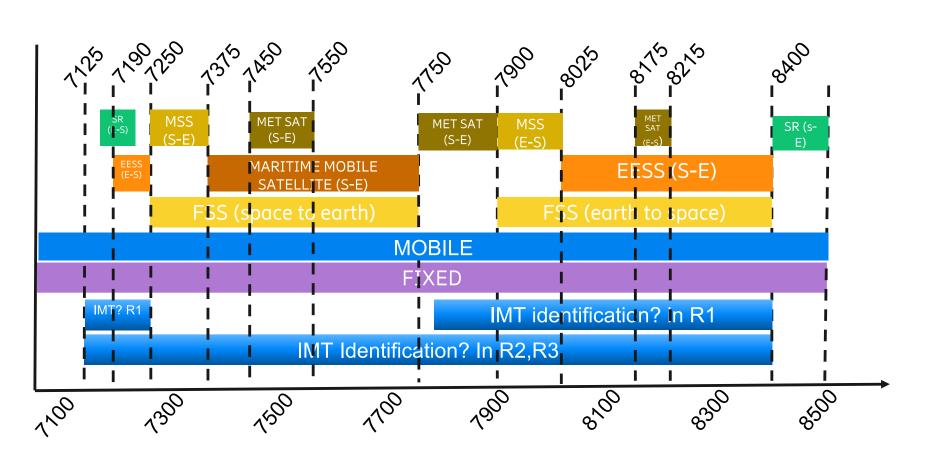
5GIF – Sharing Studies (FSS)





WRC-27: Preparing for new study cycle Many combinations of services



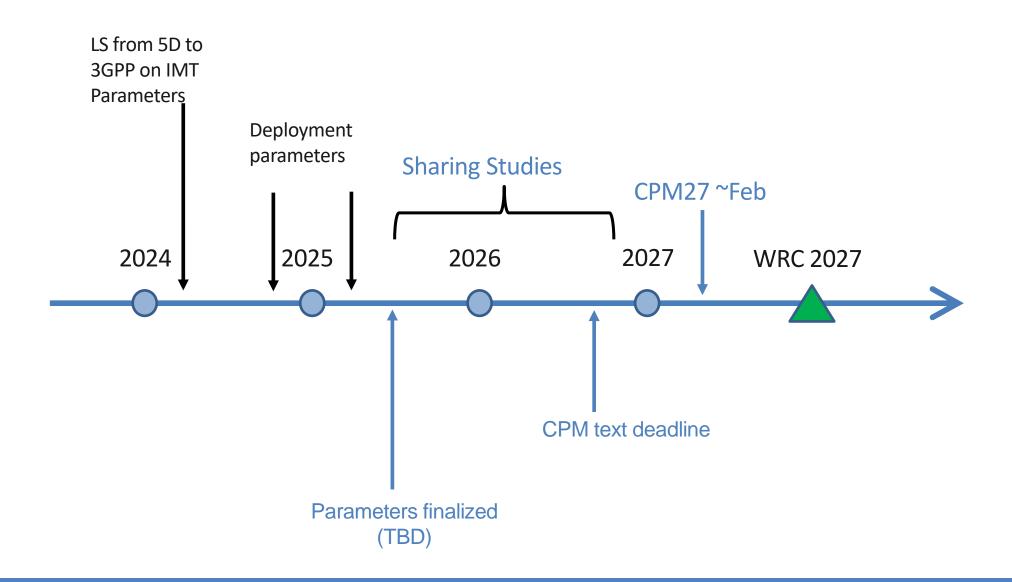


Contribute Technical studies for National input

- Al 1.7
- Al 1.13

Timeline in ITU towards WRC-27 (WP5D)









For more information visit https://5gindiaforum.in

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