

Title: Further elaboration on NGMN requirement metrics and deployment scenarios for 5G

Source: NGMN Alliance

To: 3GPP TSG RAN

Date: 27 January 2016

Contacts: Klaus Moschner (klaus.moschner@ngmn.org), Feifei Lou (loufeifei@chinamobile.com)

1. About the NGMN Alliance

The NGMN Alliance is an industry organization of leading world-wide Telecom Operators, Vendors and Research Institutes (see www.ngmn.org) and was founded by international network operators in 2006. Its objective is to ensure that the functionality and performance of next generation mobile network infrastructure, service platforms and devices will meet the requirements of operators and, ultimately, will satisfy end user demand and expectations. The NGMN Alliance will drive and guide the development of all future mobile broadband technology enhancements with a focus on 5G. The targets of these activities are supported by the strong and well-established partnership of worldwide leading operators, vendors, universities, and successful co-operations with other industry organisations.

2. NGMN 5G Work-Programme, Requirements and Architecture (P1)

At the beginning of 2015, the NGMN Alliance published its 5G White Paper [1] providing consolidated 5G operator requirements. In the Forum and Board meetings of June 2015, NGMN has launched a 5G-focused work-programme that will build on and further evolve the White Paper guidelines with the intention to support the standardisation and subsequent availability of 5G for 2020 and beyond.

A key activity in the work-programme is the Requirements and Architecture (P1). The objective of P1 is to provide timely, well informed technical requirements and architectural principles to the relevant SDOs & ITU-R. P1 focuses on end-to-end system and refining and prioritising results from the NGMN 5G White Paper. Another key aspect will be the interaction with vertical industry representatives in different regions to identify and validate requirements.

3. Intention of the LS and required actions

The NGMN Requirements and Architecture (P1) is currently working on representative deployment scenarios and key performance metrics relevant to 3GPP TSG RAN SI “Scenarios and Requirements for Next Generation Access Technologies”. The attached document is a summary from the ongoing NGMN P1 work, updating some KPIs and respective definitions, providing high level evaluation approach for KPIs and describing main challenges for each deployment scenario and evaluation goals. NGMN would like to point out that the work has so far mainly focussed on eMBB, and that it is still investigating requirements for mMTC and URLLC. Therefore it is anticipated that there may be further requirements/KPIs developed as that work matures.

We would like to ask 3GPP TSG RAN to consider the further proposals for representative deployment scenarios and key performance metrics in the attachment as an input to the ongoing study to define the scenarios and requirements for 5G RAN. In addition, we would like to inform 3GPP TSG RAN that it is our intention to keep 3GPP TSG RAN updated on our future NGMN 5G work-programme and to provide more details on representative deployment scenarios and requirements as they become available. The NGMN Alliance is willing to pursue further discussions to assist 3GPP in defining the scenarios and requirements, so as to maximize the ability of the new technologies defined by 3GPP to address the NGMN 5G vision.

References

[1] NGMN Alliance, "5G White Paper," 2015.