verizon

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Ms. Susan Miller
Chair
3GPP Project Coordination Group
1200 G Street, NW Suite 500
Washington, DC 20005

Dear Susan,

Developing 5G industry standards is a painstaking and complex task. There are many interested parties and time pressure to deliver quality standards so that new services can be brought to market as soon as possible. Verizon appreciates very much the contributions of the 3GPP Partners and your leadership of the Project Coordination Group that is creating the 5G standards.

5G has the potential to transform the ways that we live, work, and play. The starting point for launching a new technology like 5G is the standards. Chipset, network equipment, and device manufacturers will only have the confidence to design and produce the necessary hardware and software that enable the technology after the 3GPP industry standards are stable. Once the standards are stable, 5G ecosystem vendors can set timeframes for the delivery of their commercial grade products. Carriers like Verizon base our investment timing and go-to-market schedules based on network equipment and device availability. Thus, the timing for launching 5G services ultimately traces back to the delivery by 3GPP of quality technical standards.

In the interest of accelerating the deployment of 5G services, 3GPP decided to issue Release 15 – the first 5G New Radio (NR) Release -- in multiple parts (i.e., freezes) instead of as a single coherent Release. 3GPP issued an initial version of Release 15 NR in December 2017, a Non Standalone Core version of Release 15 in March 2018, and a Standalone Core version of Release 15 in June 2018. Yet another update to Release 15 is due in December.

It is the nature of standards development that after a version of a standard is stable, parties design to the standards and identify gaps, errors or ambiguities. They then submit Change Requests for inclusion in the Release. The Change Request process is a necessary and important part of developing high quality standards. But because Release 15 was issued in multiple parts, there have been multiple waves of Change Requests and a large number of Change Requests. These Change Requests impose on vendors and carriers significant additional costs (e.g., redesign and retesting) and delay service launches. What is especially concerning to Verizon is the fact that a number of the Change Requests that 3GPP adopted to Release 15 are non-backwards compatible with earlier versions of Release 15. We believe that it must be a cardinal rule that Releases and Change Requests to Releases be backwards compatible. Non-backwards compatibility can result in stranded investments for equipment manufacturers and carriers and disruptions in service or service experience for end user customers.

I am writing to you because Verizon believes that the 3GPP Project Coordination Group must exercise greater control over the 3GPP 5G standards development process. The specifications development and review process must align specifications within a Release (i.e., ensure that all the specifications within a Release do not contain conflicting requirements) before they are complete (frozen) in order to reduce the volume of subsequent Change Requests. In addition, it is imperative that Change Requests that are adopted be backwards compatible.

Verizon respectfully requests that you and the Project Coordination Group immediately undertake a review of the 3GPP working procedures and the Release schedule management process to reduce the number of Change Requests and prevent the adoption of any further non-backwards compatible Change Requests. Verizon is committed to supporting 3GPP in this effort. We look forward to hearing from you about what changes you plan to implement to improve the stability and quality of 3GPP Release 15 and Release 16 (which is currently under development).

Sincerely,

Ed Chan

Copy to: Adrian Scrase, PCG Secretary