Progress on 5G Releases 16/17 in 3GPP

By Kevin FLYNN, Marketing and Communications Officer, 3GPP

Feedback from TSG CT

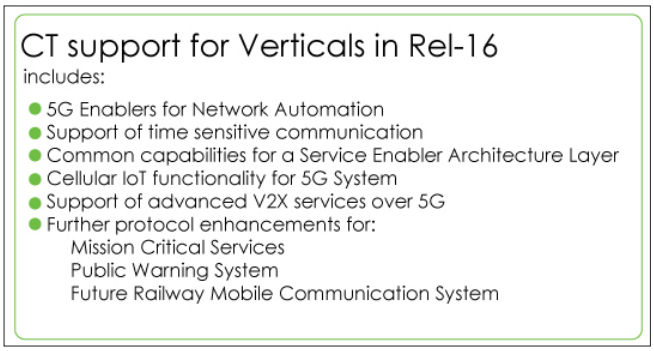
After the dust had settled on the latest TSG Plenary meetings, 3GPP held three webinars to get the leadership's thoughts on what each meeting achieved.

In our first webinar (https://vimeo.com/407199676), Lionel Morand takes us through the responsibilities of the Core network and terminals (CT) group, focusing on the priority given to getting Release 16 features done by June (TSG#88).

He describes TSG CT as the 3GPP factory for transforming service functional requirements into network enablers, via the group's protocol specifications.

During the webinar, Lionel Morand discusses user plane and control plane evolution, emphasising the new work done on the control plane, with the service based architecture replacing node management with services that can be discovered by any function at the control level. This allows very flexible deployments and the introduction of new functionality via a virtualized and cloud friendly network.

The webinar concluded with a look at the role of CT in completing Release 16, with over 50 CT level work items to finish by the end of the TSG CT#88-e meeting, starting on June 29.



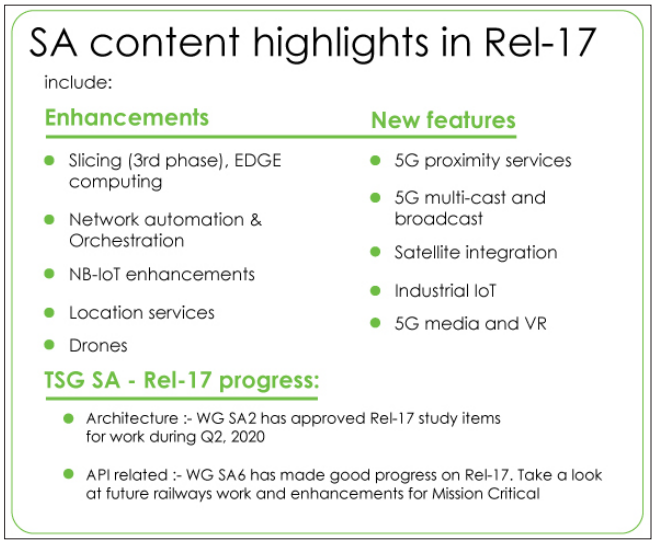
Progress in TSG SA

During his recent webinar (https://vimeo.com/407214100), 3GPP TSG SA Chair Georg Mayer described the effects of the COVID-19 pandemic on the 3GPP schedule. He also gave an update on the latest 3GPP releases and made a commitment to bring in further initiatives for new experts, to make 3GPP more approachable in the future.

On e-meetings replacing physical meetings, Mayer observed that it is "likely that the crisis will mean that we will have to cancel more F2F meetings in Q3 and even Q4." He noted that the resumption of the F2F meeting cycle is not just dependent on the virus being defeated; it will take time for Government and company travel restrictions to be lifted. He concluded: "As a global organization, we are dependent that people from all corners of the world can participate, and in the current situation this is very challenging".

On a positive note, he reported that e-meetings have gone very well and that Release 16 is set to be completed at the end of June 2020. He explained the significance of the extra three months taken for the Rel-16 functional freeze, now scheduled to coincide with end of the ASN.1 and API coding phase. By doing that, the 3GPP groups can complete the release in time for a critical 5G deadline, as the due date falls for 3GPP's submission to the ITU IMT-2020 process. For Release 17, the work package is stable and SA2 has prioritized the stage 2 work, with feature studies started in Q2 2020.

The release brings a series of enhancements to the system, but also brings in new features, many serving the verticals. Mayer highlighted that to serve the broad needs of the new 5G use cases, 3GPP now provides a tool box approach, where a set of common vertical industry requirements can be met, as a priority.



With 5G bringing a new population to the 3GPP groups, Mayer highlighted some steps being taken, at the leadership level, to help newcomers to navigate their way into the work. As soon as F2F meetings start again, there will be further newcomer sessions at the Plenary meeting and a new system of delegate mentoring, which had started prior to F2F meetings being halted, will be fully launched.

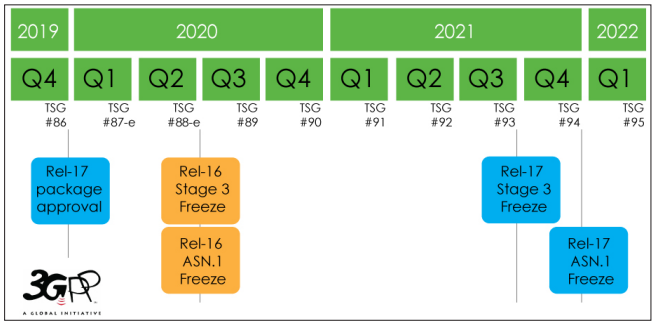
During the questions at the end of this webinar, the role of SA6 came up, and a question was asked about the role of the verticals supporting Associations. Finally, there was a question about how some features could be shifted out to Rel-18 if necessary, due to work load issues.

RAN Work Progressing beyond eMBB

In his recent webinar (https://vimeo.com/407210628) on 5G radio standards, TSG RAN Chair Balazs Bertenyi shared his thoughts about the status of Release 16 and Release 17 specifications.

Since the beginning of the year e-meetings have replaced 3GPP face-to-face group meetings. Despite the physical limitations of that way of working, he observed that the commitment of the experts is as strong as ever and that the technical work is proceeding well.

Bertenyi presented a slide that showed, despite the commitment of all concerned, this new remote way of working has put pressure on the time available to get the work done. RAN, and the other TSGs as well, have allocated longer e-meeting sched-



ules, but still the March Plenaries (TSG#87-e) agreed to an adjustment of the scheduled timeline for both releases.

The functional freeze date of Release 16 features is to be delayed by three months, bringing the completion of Stage 3 to the same Plenary meetings as the ASN.1 freeze in June. Although that completes Release 16 on time, the shift of feature work by three months does mean that the Release 17 timeline must take that into account, moving the Release 17 completion date to December 2021 (see the accompanying timeline).

Looking at the content of the releases, in this RAN webinar, Bertenyi highlighted some of the features that will take radio access networks far beyond being all about mobile broadband. Although eMBB remains the foundation for many 5G features and is being enhanced greatly in Release 17, he predicted that a series of exciting new features, including work on extended reality, are beginning to be seen as the most important use cases for 5G.

Other areas of growth in the technical work include industrial IoT, automotive and the creation of 'nr-light' to cater to the growth of connected wearables and sensors, including those for health monitoring.

** Note this article was originally published on the 3GPP News & Events website - https://www.3gpp.org/news-events/*