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DIRECCIÓN DE COMUNICACIÓN

NOTICIAS

HISPASAT promotes the role of satellites in the 5G ecosystem

- **The operator has joined 3GPP, the body that is leading the standardisation of 5G technology.**
- **Satellites are due to play an important role in the implementation of 5G to guarantee its rollout regardless of geographical location.**
- **Their global coverage and speed of deployment will complement terrestrial networks in various scenarios, from connecting people and objects in remote rural areas to providing connectivity services on planes, ships, cars and trains.**

MADRID, 22 July 2020. HISPASAT, the Spanish satellite telecommunications operator, has joined the 3GPP group (3rd Generation Partnership Project), a global association that develops standards for mobile communications, in order to work on the integration of satellites into the 5G ecosystem that is being developed. The project unites seven telecommunications standard development organisations and has developed multiple mobile standards, from 3G to 4G and now 5G. By so doing, the operator will work to ensure that satellites have a significant role when it comes to guaranteeing that 5G technology reaches any part of the planet and is available to users irrespectibly of their geographical location and the rollout of terrestrial infrastructure.

5G: a network of networks that needs satellites

Since the outset, 5G has been defined as a network of networks, the result of the alignment of different technologies towards a convergent scenario. Whilst previous generations (2G, 3G, 4G) were focused solely on connecting people, 5G aims to connect objects and people wherever they may be at all times, both with other people and with other objects. To achieve this ambitious goal efficiently, a combined use of different fixed, terrestrial and satellite technologies will be needed. Each of those will integrate with the others to give the most appropriate response to the coverage and capacity requirements of this new technology at any time and under any circumstances. The 5G infrastructure, therefore, has to be a well-organised ecosystem - a network of networks made up of complementary layers based on the strengths of each technology, including satellite technology. Only in this way will a global and viable commercial development of this new standard be guaranteed.

Hence satellites are called to play an important role in different 5G technology use cases. Since a few years ago, high-throughput satellites (HTS) have notably increased its capacity. Also, thanks to innovation, we are seeing significant improvements in the cost and efficiency of user equipment, both with network platforms and terminals.

All this has an impact on the fact that communications satellites have optimised their competitive advantages and offer 5G networks key characteristics to allow for their rapid implementation. Thus, their global coverage allows high capacity services to be supplied anywhere on Earth, no matter how remote - their robustness guarantees connectivity that is even resistant to natural disasters. They make it possible to distribute data or audiovisual content to many users at the same time in a highly efficient manner. In addition, the installation them is a very quick process and does not require civil

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works, meaning that it allows for the 5G network to be extended to tricky or distant areas in a much shorter time.

Thanks to this, satellites can contribute to the rollout of 5G in several use cases: extending coverage in rural or hard to reach areas; ensuring that passengers on planes, ships and vehicles on land have connectivity; via the broadcast of data towards the network's nodes or even to users' own terminals, promoting with this the development of Edge Computing solutions; establishing trunk links on mobile networks to connect remote 5G base stations; acting as a complement to terrestrial networks to prevent them from becoming congested or to guarantee continuity in emergency situations; and connecting objects globally and in isolated areas using satellite IoT solutions.

In essence, the function that HISPASAT and other satellite operators can fulfil in 3GPP working groups is particularly important to achieve the most efficient 5G ecosystem possible. “We have to ensure that every 5G application is working on the most appropriate technological platform in terms of technical requirements and cost efficiency for each situation. Otherwise, it would cause an unnecessary increase in financial resources and in the complexity of the architecture”, states José Luis Serrano, Head of Innovation at HISPASAT. “In the satellite sector we have been working for years on various fronts to offer an optimal solution for any user at any location. Fully integrating satellites into the 5G ecosystem is already one of our main lines of innovation, and we believe that it will be key for 5G technology to achieve its objectives”, Serrano concludes.

About HISPASAT

HISPASAT, Red Eléctrica Group’s communications satellite operator, is a world leader in content distribution in Spanish and Portuguese speaking countries and its satellite fleet is used by important direct-to-home television (DTH) and high-definition television (HDTV) digital platforms. HISPASAT also provides satellite broadband and connectivity services, which include broadband access, mobility and backhaul networks, in addition to other added value solutions for governments, companies and telecommunication operators in America, Europe and North Africa. HISPASAT –which is comprised of companies that have a presence in Spain as well as in Latin America, where its Brazilian affiliate HISPAMAR is based– is one of the world's largest companies in its sector in terms of revenue, and the main communications bridge between Europe and the Americas.

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