

Hispasat highlights the role of the satellite in mobile communications and the 5G environment at MWC19 Barcelona

- The Spanish operator participates in a demonstration involving 5G connectivity for emergency services with a connected ambulance, an initiative promoted by the Generalitat of Catalonia, SEM, Vodafone, i2CAT, Hispasat, Juniper Networks e Iecisa and other members of the 5G Barcelona consortium.
- Moreover, it presents a flat antenna, developed together with Phasor for professional road transport vehicles, which would be integrated into the ambulance in order to provide satellite connection throughout its journey.
- Hispasat currently connects more than 2,300 mobile phone base stations from space.

MADRID, 26 February 2019. For yet another year HISPASAT, the Spanish satellite and telecommunications operator, will participate in the Mobile World Congress, the world's largest event for mobile communications, which is currently taking place in Barcelona. HISPASAT, a leader in providing satellite telecommunication services for telecommunications operators that currently connects more than 2,300 mobile phone base stations (or BTS, Base Transceiver Station), joins this event to show the importance of satellites in the development of mobile networks, connecting towers with their backbone network via satellite in order to provide cellular coverage in the most remote or uninhabited areas where extending the terrestrial infrastructure is difficult or not cost-effective. With this cellular backhaul service, the satellite facilitates a more rapid and less expensive deployment for operators in these cases, and it contributes to extending mobile communications to areas that otherwise would not be reached.

Moreover, the satellite will also play a relevant role in the 5G ecosystem that is being developed, since it will make it easier to extend 5G connectivity to anywhere around the world. As such, the satellite industry is working on being integrated into the 5G environment and forming part of hybrid networks that will provide connectivity services by combining terrestrial and space technologies in the most efficient manner in each case. In this environment, the satellite also provides its broadband multicast capability to facilitate, for example, mass software updates to millions of users at the same time or the transmission of high-quality video content. It enables high availability networks to be formed, providing the 5G ecosystem with an infrastructure independent of any incident or disaster that may affect the terrestrial networks.

Demonstration with a connected ambulance in a 5G environment

The 5G Barcelona consortium formed by the Generalitat of Catalonia, SEM, Vodafone, i2CAT (with the collaboration of CTTC), Hispasat, Juniper Networks e Iecisa and other members of the 5G Barcelona will carry out a demonstration involving connectivity with an ambulance in a 5G environment at the stand of the Generalitat during MWC19 Barcelona. In the future this connectivity will make it easier for emergency medical personnel to receive instructions from

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specialists from a hospital, since it will be possible to establish full audiovisual connection between the vehicle and the hospital. This will allow the specialist to monitor the patient's status in real time, which may be key to their survival and their subsequent recovery.

The demonstration will be carried out on a supposed patient suffering from pneumothorax who is urgently transferred to the hospital. In the 5G ecosystem, terrestrial and satellite connections are combined to ensure permanent connectivity of the ambulance to the hospital during its entire journey so that the specialists can guide the transfer from the hospital and implement the most appropriate medical protocol based on the parameters received.

To conduct this demonstration, a model of an ambulance with 4G/5G connections and a satellite antenna, connected to an Hispasat's satellite, has been installed at the stand of the Generalitat, which will allow the demonstration to be carried out in all cases of use, both in urban areas with broad development of the 5G connection and in areas with only 4G connection or without terrestrial telecommunications networks, where the satellite will have to close the circle with spatial technology. It will only be possible to offer a complete connectivity service with a hybrid network that combines different technologies, especially in cases of mobility when areas with less extensive terrestrial mobile coverage are transited.

The 5G Barcelona consortium is an initiative promoted by the Generalitat of Catalonia, the Barcelona City Hall, Mobile World Capital Barcelona, the i2CAT Foundation, Catalan Telecommunications Technology Centre (CTTC), Atos and the Polytechnic University of Catalonia (UPC), which have been joined by HISPASAT and the European Space Agency in recent months.

New satellite terminal for professional vehicles

During the event, HISPASAT presents, along with the model of the connected ambulance, the first prototype antenna especially designed to adapt to the requirements of land-mobility applications for road transport. Thanks to this flat antenna that has a height of just 5 cm, professional and emergency vehicles will be connected via satellite in any environment where they must operate, and they may use applications such as operational telematics or have high-quality Internet access during the journey to the hospital. This antenna, designed by the Phasor company under the specifications of HISPASAT, has fully electronic steering and enables connectivity services to be efficiently and reliably offered in mobility with a high bandwidth.

About HISPASAT

HISPASAT is comprised of companies that have a presence in Spain as well as in Latin America, where its Brazilian affiliate HISPAMAR is based. HISPASAT 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 the backhaul networks, in addition to other added value solutions for governments, companies and telecommunication operators in America, Europe and North Africa. HISPASAT 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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