

# BELLA TO BRING 25 YEARS OF DIRECT TRANSATLANTIC CONNECTIVITY BETWEEN EUROPE AND LATIN AMERICA

In August this year GÉANT and RedCLARA, the Latin American Research and Education Network, announced the signing of an Indefeasible Right of Use (IRU) contract with EllaLink for spectrum on a direct submarine cable connecting Europe and Latin America.



Picture  
Bella network  
map

The BELLA IRU will provide for the transatlantic data-sharing and collaboration needs of the European and Latin American R&E communities for the next quarter of a century in a wide range of areas including astronomy, particle physics, earth observation, development goals, crop research and the arts and humanities.

BELLA, a collaboration involving GÉANT, RedCLARA and the NRENs of Brazil, Chile, Colombia, Ecuador, France, Germany, Italy, Portugal and Spain, is a significant achievement as it will enable research and education traffic to flow directly between the two regions for the first time, reducing latency by up to 60%, improving data protection, and providing cost-effective and scalable connectivity at significantly higher speeds than have previously been possible.

The BELLA objective to obtain long-term, high-speed capacity builds on the results of the ELLA project (Feasibility Study for a direct Europe Link with Latin America), led by GARR (the Italian NREN). ELLA established that investment to obtain spectrum for R&E purposes on a submarine cable made technical and economic sense. From ELLA came

the commitment from the European Commission to provide funding via DG CONNECT and DG GROWTH to support R&E connectivity on a new transatlantic cable between the two regions, with additional funding from DG DEVCO to assure the long-term sustainability of the RedCLARA backbone in South America at speeds of 100Gbps and above, and provide seamless access for Latin American NRENs to the transatlantic BELLA connectivity to GÉANT.

The need to scale connectivity was recently highlighted by some exciting discoveries in the area of astronomy – an important part of the Latin American research community – such as the merger of two neutron stars (known as a ‘Kilonova’) and the detection of ‘Oumuamua’, the most elongated asteroid known to science, that required collaboration involving infrastructure and scientists in Europe and Latin America. Such collaborations between the two continents are set to expand significantly in the coming years, and with programmes such as Copernicus – the EU’s earth observation programme – and collaborations on earth sciences and high-energy physics, to name a few, the

importance of BELLA connectivity will only increase.

Tom Fryer, Senior International Relations Officer for GÉANT and member of the BELLA team, said: “When construction of the EllaLink cable is completed in late 2020, Europe-Latin America R&E connectivity will finally be on an equal footing with connectivity between other world regions. None of this would be possible without the commitment of the EC, and what is perhaps a funding first, with three separate DGs collaborating closely to achieve one overall objective. And of course, the connectivity that BELLA will provide will act as a backbone for other areas of collaboration between GÉANT and RedCLARA, including the extension of the reach of services for R&E and targeted user support, such as the Enlighten Your Research programme which will be jointly announced by the two organisations later this year.”

Luis Eliécer Cadenas, Executive Director of RedCLARA, and co-chair of the BELLA Consortium, said: “This milestone is a key achievement for the Latin American research and education community. We are opening a direct collaboration channel with Europe, guaranteeing security and quality of service for the many scientific and educational applications that we expect to offer. RedCLARA is engaged in building the data communications infrastructure for research and education that will foster regional development. The BELLA subsea cable is a first stone in building this capacity”.

Fernando Liello of GARR, co-chair of the BELLA Consortium and coordinator of the feasibility study that led to the BELLA programme, said: “This milestone is the first major step towards the completion of efforts of several years by a large group of people brought together by the vision of a closer and more efficient interaction between European and Latin American research communities. This link will strengthen the many historic, social and scientific research links that already exist between the European and Latin American communities. Notwithstanding its importance, this achievement is only the first step on the strategic path of the BELLA programme whose final objective is to overcome the digital divide between these two regions”.

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