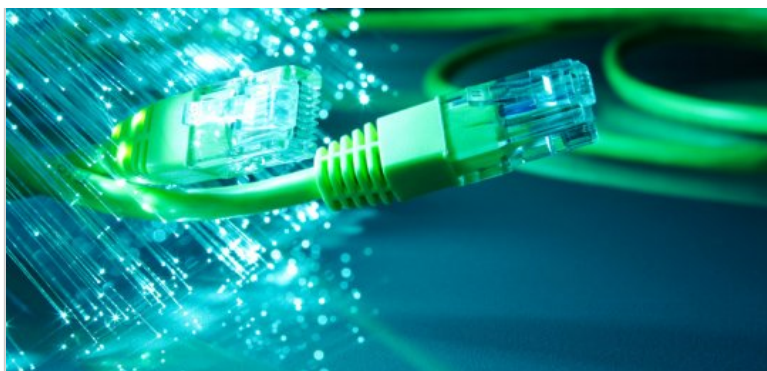




The University of Granada Becomes the Academic Institution with the Fastest Internet Connection Speed Worldwide

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News in: [Spain \(/category/countries/spain\)](#) | [ICT \(/category/research-areas/ict\)](#)

The University of Granada has updated its computer network facilities to achieve a 160 Gigabit connection speed (Gbps). This means that the University of Granada has become the academic institution with the fastest connection speed worldwide, which is up to 16 times faster than the networks of other universities in Spain. In addition, the UGR has also improved its network protection against critical failures. As a result, the new network is by ten-fold securer.

This state-of-the-art network is called *RedUGRNova* and includes a set of network nodes composed of more powerful redundant processors and a 40 Gigabit Ethernet connection with capacity to establish aggregated links. This allows for a 160 Gbps core network connectivity. This upgrading will provide the academic community with faster access to learning and research resources, and will allow seamless communication between researchers collaborating at national and international level.

In recent years, the University of Granada has made a significant investment to connect more than 70 centers scattered throughout eight campuses (five in Granada, one in Ceuta, another in Melilla and a wireless virtual campus). For this purpose, a total of 2,000 kilometers (1,243 miles) of optical fiber cable have been laid. The *RedUGRNova* will allow the University of Granada to save more than €1.2 million every year (near €100,000 per month).



According to the Head of the Network and Communications Department of the University of Granada, the collaboration of the Spanish integrator Acuntia and the new-generation Cisco technology applied have made it possible to have a network with an optimal reliability, scalability, performance, control and security in our campuses. In addition, the new technology simplifies the integration of all university services, enables centralized management, and guarantees internal and external communications regardless of the bandwidth used.

In Andalusia, at a 10 Gbps Speed

The Rector's delegate for Information Technologies, José Luis Verdegay Galdeano, explained that Andalusian universities are currently interconnected at a 10Gbps speed through the Red Informática Científica de Andalucía (RICA), which belongs to the Andalusian Regional Government. However, the University of Granada has a 160 Gbps intranet that is 16 times faster than RICA, which illustrates the relevance of the new network.

Verdegay has acknowledged the "excellent work" done by the Network and Communications Department of the University of Granada, which has placed our University as a world leader in the field of computer networks.

After the implementation of RedUGRNova, the University of Granada has started to work on the development of a wireless communications node located in Sierra Nevada and at the Telecommunications Center of the Training and Doctrine Command of the Spanish Ministry of Defense in Monte Sombrero (Granada, Spain). Both nodes will be operational in 2013 and will work as a backup utility in the unlikely case a massive failure would occur in all optical fiber nodes, the Rector's delegate for Information Technologies stated.

The RedUGRNova is composed of Cisco's routing, switching and security solutions and will allow the University of Granada to support the exponential growth of users and high-performance computing applications (HPC), such as cloud services, IP-based voice services, high-definition videoconferencing, instant messaging, e-learning, digital library, internet-based TV (UGR Media) or SAN network-based storing. The RedUGRNova will simplify resource management and control.

This Project was developed within the strategic framework of the CEI BioTic GRANADA, which was recently awarded the maximum score by the International Commission in charge of evaluating the project.

RedUGRNova was presented in late November 2012 during the RedIRIS 2012 Technical Seminar (see at <http://www.rediris.es/jt/jt2012> (<http://www.rediris.es/jt/jt2012>)) in the lecture Red Multigigabit Universitaria ¿El límite está en los 100Gbps, ...?

<http://canal.ugr.es/information-and-communication-technologies/item/61573>
(<http://canal.ugr.es/information-and-communication-technologies/item/61573>)

Attached files



- (<http://www.alphagalileo.org/AssetViewer.aspx?AssetId=70614&CultureCode=en&MaxWidth=800&MaxHeight=400>)

RedUGRNova scheme

