



The time has come for national networks from Central America to speak up and ask for support from their governments, according to Alberto Pérez, Deputy Director of RedIRIS, Spain’s national research and education network (NREN). The search for a sustainable model, he says, lies in a change of paradigm in which funding not only depends on the contribution received from universities.

The irrefutable advances in terms of advanced internet in Central America are not the result of a bet made by governments, but the result of the work of a few pioneers and of the universities that have joined this endeavour, states Alberto Pérez, deputy director of the Spanish network [RedIRIS](#), who visited El Salvador (in early 2011).

The creation of National Research and Education Networks (NREN) in Latin America, supported by an advanced network infrastructure, has also been the result of the work and support of RedCLARA, put forward by the ALICE (June 2003 to March 2008) and [ALICE2](#) (Latin America Interconnected With Europe; December 2008 to September 2012) projects, partly funded by the European Commission.

In preparation for the completion of ALICE2, in which RedIRIS takes part, Pérez points out that NREN must be prepared to make the achievements accomplished these years become sustainable in the future; according to his view, such sustainability lies in finding new sources of funding which increase the mere contribution from universities.

Central American networks have operated with a good infrastructure and limited human resources over these years. What would be the steps to take for their strengthening?

It is fundamental that this is a bet made by the State. Almost every country across the globe is betting on models based on the information society, in the economy of knowledge; a lot of national plans for broadband as a fundamental development factor are being made and if governments believe in this, they should be aware of the fact that in order to generate more knowledge in the academic-educational and research fields, it is fundamental to work remotely through the best possible means.

There are educational contents overseas and servers which are far away and can be accessed remotely; there is highly valuable scientific equipment you do not have, but you can access the equipment owned by others. You do not have to do research only with the people close to you, but with those who are more knowledgeable about my speciality, and they may be in another place. We have to attempt an environment where working with someone on the other end of the world and working with someone by your side are the same. ICT tools are a fundamental element to reduce distances and create knowledge clusters.

I believe here networks have to try to pass on that message and say: We have kept the flame alive; we have carried it with much personal effort; but in a global and competitive world you can't have the capacity to provide a suitable service with such small means.

Is this the time to ask Governments for support?

I think this is the time to capitalise all the effort that has been done and ask Governments to take another leap. Every State will have to find its most appropriate network model, decide which institutions can or cannot get connected to that network and whether funding will be centralised, governmental or jointly provided by the government and the institutions that get connected. This depends on each country's concrete policy. But it is very difficult to move ahead if you don't have this kind of support.

Is it necessary to give greater visibility o the benefits in order to get that support?

You have to give visibility to all the work that has been jointly done with many parties: the governments themselves have supported academic networks; the European Commission (EC), which funds the current ALICE2 project and the former ALICE, which gave birth to RedCLARA and which has in turn motivated many countries to create their networks. But it's time to take a look at sustainability and the EC is reducing the size of its contribution and it is time for countries to take a look at what is happening around. All developed countries bet on this technology to improve the quality of education and science and each country must decide what it will do so as not to be left behind.

Inevitably, they have to do their job and look for the most reasonable and efficient mechanisms to do so, rather than risking this effort may be lost.

Until now the strategy has been to attract users, show the advantages to universities?

Yes, but we have to sell the topic to economic decision-makers. It is ok to do it for the base so that people ask for it; but we have to tell people that we not only provide the physical network, we provide collaboration tools. We provide an infrastructure for people to collaborate.

Marketing must first draw up a sustainable model and then sell it.

So we have to rethink the model?

Yes, the funding and services model. That requires finding the resources to spend time reflecting, getting quotes and checking alternatives, formalising proposals in writing... You have to generate some credibility so that they (the governments) give you resources, it is difficult to say “get involved in this” on the basis of vague information; they need to see documents, statistics and comparisons which facilitate their work and get presented a clear case that is

sustainable and well thought-out; and thus they can be encouraged to take a leap and get involved and fund part of the network. But we cannot tell a government not to support the network either; that is to put things in such a way that they become lax. If you tell the government “you don’t have to pay anything, the universities pay; you don’t have to give any extra money to universities; when they stop paying, you don’t have to help them nor do anything; I only ask you to support them”, of course not! We have to completely change the paradigm. They take this for granted in such a way that they spend much time on it; but we have to put pressure on them and make them see that “it’s your business; it’s not a pioneering thing; it won’t be available because of you; this could save money to the country and you would have a better service; you should bet on this”.

But in order to approach the government, do you need to strengthen the networks with resources and staff?

Certainly, because one single person cannot make that effort; I think it’s a lot more useful to devote resources to better practices or standard documents, with common sections, than buying a router or bandwidth which may be a benefit today and a liability in the future if there isn’t a sustainable model. You’re going to install the router but if later on someone won’t pay you and someone else is going to get disconnected, it will disappear in the end. This is why I think there must be a change of paradigm and makes things in a grand scale. Governments cannot stay uninvolved in this.

What is the importance of unifying the efforts of Central American countries?

It is a fundamental factor, because usually in the communications sector, concentration, globalisation and large-scale economies are very important. The negotiation capacity you acquire collectively in cooperation can enable you to obtain specialised services –which a small country would not be granted- or better prices. You can get services which are complementary; for instance in the area of networks it is very important to create rings to get redundancy so that if the service is cut at some point, traffic can be carried in the other direction. In order to get better service and pricing conditions, the bigger your scale the better. Here counties are relatively small, with a low mass of researchers; it would be a lot more interesting if they had common services which can be accessed through the network instead of having many dispersed services.

How and why does RedIRIS support Central American networks?

One thing is clear and has a positive effect: if tomorrow a Spanish researcher discovers that someone that is knowledgeable on his/her subject is in another part of the world, like Central America or Asia, he/she requires those countries to also have networks and that bilateral communication is fluent and conducted through the best possible means. Science and studies are globally distributed and it is an effort in which we not only want Spanish people to communicate between them and with Europeans, but with all the countries where there are researchers. In helping these networks we not only help them as part of a development policy, but also help ourselves to have better tools to take advantage of what these other can contribute.