African high-speed data network open to researchers

UbuntuNet network goes live from Tanzania.

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A high-speed network that allows faster data transmission both among researchers in southern and eastern Africa and with scientists in Europe and other parts of the world has been launched.

The UbuntuNet network, unveiled in Dar es Salaam, Tanzania, last month, builds on links initially established between Europe and five African countries by the UbuntuNet Alliance, the regional research and education network for eastern and southern Africa.

The network provides a high-speed Internet connection between national research and education networks (NRENs) in the region and with the pan-European GÉANT network, giving access to 40 million users in 8,000 institutions.



Per-Anders Pettersson/Corbis

Students in Cape Town.

It was developed under the AfricaConnect programme, which aims to provide researchers across Africa with access to faster data transmission facilities to encourage global research collaboration. The European Commission provides 80 per cent of the programme's funding, with the rest coming from African governments out of their support for the NRENs.

European funding for AfricaConnect is due to last until 2015, after which the project is intended to be solely funded by its African partners.

Speaking last week at the 2012 Africa-European Union Cooperation Forum on ICT, held in Lisbon, Portugal, UbuntuNet Alliance project officer Tiwonge Msulira Banda said that African scientists in fields such as agriculture, management of natural resources, climate change and earth observation, will benefit from access to a world-class data transmission network.

"In all of these fields, UbuntuNet will open up opportunities for African researchers to get engaged in cutting-edge research at a global level," he said.

One research area that was already benefiting from high-speed access, he added, was genomics, where the high-speed links are being used to exchange data between researchers in Malawi and Kenya and the Wellcome Trust's Sanger Institute in Cambridge, United Kingdom.

Banda said that UbuntuNet could even allow more Africans to become involved in particle physics experiments at the Large Hadron Collider at CERN (the European Organization for Nuclear Research).

Cathrin Stöver, chief international relations and communications manager of DANTE, the organisation that operates GÉANT and is coordinating AfricaConnect, emphasised that, although most of the initial funds were coming from Europe, "we will only do things that are agreed as beneficial by the African partners".

She added that AfricaConnect is also committed to establishing close ties with regional research networks in west and central Africa.

Francis Tusubira, chief executive officer of the UbuntuNet Alliance, said that the organisation's goal was to ensure that all countries in southern and eastern Africa had viable NRENs connected to the UbuntuNet network.

But he added that it was a major challenge to build the capacity to run the national networks effectively, partly because of the lack of graduates with relevant computer skills being produced by universities.



"We have thousands of engineering students coming out of universities, but put them in a working environment [involving computers] and they have no idea what to do," he said.

Therefore one priority for the UbuntuNet Alliance under the AfricaConnect project is to establish programmes to boost the teaching of computer engineering skills in African universities over the next four years.

There was also a need to persuade African politicians of NRENs' value so that they provide the funding required for their long-term operation, Tusubira said.

Tusubira announced that he had already received commitments of 60 per cent of the total African contributions required by the AfricaConnect project up to 2015, and that 40 per cent of this money had already been received.

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