FEAST Project

FEAST seeks support for the AfricaConnect network

The FEAST project is studying the feasibility of interconnecting existing and emerging African research and education networking infrastructures and connecting them to the European backbone network, GÉANT. The actual deployment of such a network is the goal of another project, called AfricaConnect, which is being supported by the EC in collaboration with the African Union Commission (AUC).

FEAST invites policy makers, telecommunications regulators, heads of research and education institutes and other relevant stakeholders to contribute to the study and to support the implementation of AfricaConnect. The ultimate success of the initiative will depend upon the endorsement and sustained support of national and international policy-makers.

AfricaConnect is the first of nineteen 'Lighthouse Projects' that were agreed by the European Commission (EC) and the African Union Commission (AUC) in December 2007 as part of an EU / Africa Strategic Partnership. The objective is to integrate the African research and education community both regionally and internationally, using the most cost-effective high-bandwidth network capacity. The target is to ensure emerging National Research and Education Networks (NRENs) in sub-Saharan countries have digital connection for their students and researchers in sufficient capacity and on affordable terms.

Deployment of the network will provide increasing opportunities for collaboration with commercial companies that provide network equipment and for companies, institutions and organisations that are involved in education and training to deploy, manage and operate the network. On the application side, there are many opportunities for organisations and companies to participate in FEAST and AfricaConnect.

FEAST findings
A FEAST fact-finding study has identified third party agencies that are already working to establish or fund research networking capabilities in Africa, both African and from other regions. Several of these are already investing in solutions that the AfricaConnect initiative can build on, including initiatives by regional, national and international development agencies. Significant progress has already been made in the south east by the UbuntuNet Alliance and in the emerging WACREN initiative in west and central Africa.

FEAST has developed a set of criteria by which the maturity of existing and emerging African NRENs can be assessed and ranked. All African countries are eligible candidates and at least five NRENs will be included in the first phase of AfricaConnect later this year.

In October 2009, FEAST will publish a market-tested 'roadmap' providing the best scenarios for the deployment of a sustainable and extensible regional backbone network dedicated to NRENs in sub-Saharan Africa. The roadmap will include the design of 'Lighthouse Demonstrators' illustrating the expected impact of the regional network as well as capacity-building activities. FEAST will also disseminate information to increase awareness and promote contact with potential beneficiaries and funding institutions.

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Build infrastructure to build knowledge and prosperity
Sub-Saharan Africa is the one of the last areas of the world to join the worldwide community of research networks. These networks enable collaboration between scientists and researchers worldwide. FEAST and the AfricaConnect project are vital for bridging the digital divide and enabling high-speed African participation in regional and global projects. AfricaConnect will provide sub-Saharan NRENs with higher capacity transit to the general commercial Internet as well as access to research and education resources and peers around the globe. Local ownership and compatibility of use and connection policies are important factors in the planning of AfricaConnect.

Africa has led the way in using new technology in innovative ways, such as the widespread use of mobile phones in rural agricultural settings. Such activities are likely to grow and pave the way for even more innovative use of the Internet and will stimulate research in these areas in the universities. This will in turn enhance economic development and the lives of the population. In general, prosperity levels track the growth of Internet use. Today, most aspects of education in the developed world rely on Internet technologies. Africans can benefit from sharing knowledge and experience in a range of research areas that are studied worldwide, including research areas with particular relevance in Africa, such as malaria and other diseases and the effects of climate change.

New commercial activities grow out of research activities and this will help create new indigenous enterprises in the region. An increase in academic networking activities will also stimulate commercial Internet providers to enhance their services, allowing Africans to participate more fully in the global Internet economies.

Improve connectivity to improve capacity
Good Internet connectivity is vital if a country wishes to take part in the global knowledge economy. Research and education institutions in sub-Saharan Africa need to change from the current networking model, based on individual satellite connections direct to a commercial Internet service provider (sometimes on a different continent), to a cooperative model based on terrestrial networks and the facilitation of joint procurement of bandwidth to the commercial Internet, as well as facilitating academic peering between universities, nationally, regionally and globally.

The most effective way for African universities to *get connected* is to form an NREN to operate their own dedicated national network, connected in turn to a regional backbone and eventually to the global research networks.

Research and education networks are successfully interconnected in Europe via the GÉANT backbone network. In different parts of the world, specific regional development needs have been supported by building up regional networks and connecting them to the European GÉANT network. Examples are EUMEDCONNECT in the Mediterranean regions of North Africa and the Middle East, the ALICE network in Latin America, and the TEIN regional network initiative in Asia. Experience gained in these developments will benefit the deployment of the sub-Saharan network by AfricaConnect. Under this programme, which will build on the FEAST recommendations, sub-Saharan NRENs (except the South African network) are eligible for AUC-EC support, including investments in links and network elements for the regional backbone. All will benefit from the concurrent capacity-building activities, including training and educational programmes to ensure development and sustainability.

FEAST PROJECT PARTNERS
FEAST is a ten-month feasibility study being carried out by a partnership of DANTE, TERENA and the Swedish Royal Institute of Technology, KTH, which is the main contractor. Several European NRENs have pledged their support to the project, as has the Italy-based International Centre for Theoretical Physics (ICTP). More information about the project and partners is available through the project website.

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