

Address to ISOC (NIG) '99

by Vint Cerf

Wednesday, 20 January 1999

- Hotel Presidential, Port Harcourt, Nigeria.

Greetings. This is 'Virtual Vint' here, coming to you from Washington D.C. Thank you for inviting me to address you today. My only regret is that I couldn't join you in Port Harcourt in person. Please accept my best wishes for a successful meeting.

Today the conference organizers have asked me to talk about the future of the Internet. Specifically, I would like to sketch out *what role each of you can play in the development of the Internet, both in Nigeria and in Africa* as a whole. And while I have some specific ideas I would like to share with you this morning, I would like you first to consider a more basic question:

What is the most crucial ingredient in promoting economic, intellectual and technological development? Now I'm sure many of are considering a variety of answers such as, 'access to natural resources' or 'an excellent system of public education'. As important as those are, I believe the key factor is now - and has always been - the existence of *free and unfettered collaboration between people of different cultures* and backgrounds.

In the time *before the development of communications technologies it was geography which was the critical factor in determining which areas enjoyed the best access to knowledge and technologies* developed elsewhere in the world. Such was the case with the great cities of antiquity that developed into crossroads of commerce and knowledge, places such as Athens, Rome and Alexandria.

It was the development of communications technologies, starting the latter half of the nineteenth century, that began to gradually shrink these geographic barriers. And from the invention of the telegraph,

the telephone, television and radio we have seen that the ***deployment of advanced technologies has often presaged accelerated economic growth.***

Today at the dawn of the twenty-first century we're finding ***that business will be powered***, not only along traditional trade routes of old, but ***over fibre optic cables by way of Internet-enabled electronic commerce.*** Already companies are constructing far ranging intranets to knit together global operations, allowing an auto maker to design a car in Europe, manufacture its parts in Mexico and assemble them in the United States. Others are using intranets to automate their relationships with vendors and suppliers.

Of particular interest to those of you in Nigeria is the speed at which ***Internet and related technologies are taking hold in the international oil business.*** Up until recently the oil industry, as a whole, has lagged behind other sectors of the international economy in terms of Internet usage. But that is changing rapidly as companies are seeking improved information gathering, broad cost savings and improved customer service from Internet technologies.

One of the best examples of this comes from Africa itself: Founded in 1995, the Embendy Afropedia was originally intended to serve as an on-line database about the African oil industry. In the interim, however, the web site has developed into the most comprehensive repository of information on the web concerning business and commercial activities on the continent.

Another important issue, in terms of electronic commerce, is the development of guidelines for the use of cryptography for confidentiality, authenticity and the integrity of Internet transactions, a topic that your conference organizers have wisely put on the agenda for this meeting. Simply put, there is no substitute for free and open use of cryptography if we wish to see electronic commerce flourish in the next millennium.

So clearly, ***it is in your best interests to see that Africa as a whole, and Nigeria in particular, is well positioned to take full advantage of the Internet in the coming Network Century.***

Let me offer three specific suggestions as to how you can do that: First, it is important for Nigeria to embrace competition and deregulation in telecom markets. Experience has shown that

deregulation

always leads to lower prices, better services and the introduction of new technologies.

Currently

Nigeria has very limited per person access to telecommunications services. And the best to increase

this ratio is to inject competition into the telecommunications mix.

Next it is vital that *your country takes a leadership role in encouraging regional network connectivity in Africa*. Too often all around the world, Internet traffic that should be flowing directly

between nations often flows first to network elements outside the region. And in fact Africa will get

its own 'on-ramp' to the information superhighway as the Africa One project, an effort to ring the

continent with fibre optic connections, is completed in 1999. This is an important first step. And

I hope

all of you continue to work hard for progress in this area.

Finally, I would like to encourage all of you to help promote the acceptance of the Internet in Nigeria.

It won't be enough for your country to merely be 'on the Internet'; rather *it is critical that your nation and its people embrace the Internet and use it enthusiastically*. Embracing the Internet also means joining with other nations around the world and taking a place at the table to help administer

the global network - a role you'll all play as members of the Nigerian Chapter of the Internet Society.

As the Internet becomes a true global medium we are going to need the help and support of individuals

like yourselves from around the world if we're going to govern the network in a manner that is international, open and fair.

In conclusion I would like to leave you with one last thought: While encouraging the development of

the Internet is a worthy goal, we need to keep in mind that the ultimate aim of this work is to integrate

Nigeria and Africa into the web of electronic commerce and information exchange that has brought so

much benefit to other parts of the world. Together, *you can take Africa and the Internet where no*

other network has gone before.

Thanks very much. See you on the Net.