Difficulties in local wire loop access in Africa

PLAN OF PRESENTATION

I – Difficulties in local wire loop access

II – Fixed wireless, a solution for mass access.

III – Experience of Togo

Difficulties in local wire loop access in Africa

I – Difficulties in local wire loop access

Introduction

I.1 – Causes of those difficulties of access

I.2 – Consequences of those difficulties of access

Difficulties in local wire loop access in Africa

Introduction

It is not easy in most African capitals to have access to a wire line.

While it is easy to have all telecommunication services in towns, this is not the case some kilometers away.

Difficulties in local wire loop access in Africa

Introduction

It is almost impossible to get access to a wire line in the suburbs of those capitals.

The situation becomes worse in provinces and rural areas.

Difficulties in local wire loop access

Causes of those difficulties of access

Lack of investment in the sector for many years.

Size of the investments and deployment of wire network.

Difficulties in local wire loop access

Causes of those difficulties of access

Negative effects of Bretton Wood institutions politics.

Lack of vision of policy makers.

Bad urban planning of our cities.

Social difficulties.

Difficulties in local wire loop access

Lack of investment in the sector.

Investments in telcommunications in 2002.

In millions US dollars

Côte d'Ivoire	137.7	Egypte	665.8
Nigéria	132.2	Maroc	644.3
Sénégal	108.6	South Africa	712

Difficulties in local wire loop access

Heavy investment and deployment.

It is known that investment in wire network is higher than that in mobile network.

This higher investment is due to the cost of civil engineering and the cable dedicated to every subscriber.

Difficulties in local wire loop access

Heavy investment and deployment.

The deployment of wire network takes a long time. By experience the extension of a wire network takes one or more years.

Difficulties in local wire loop access

Bad effects of structural adjustment policies.

The World Bank has forbidden investment in some countries because of structural adjustment policies.

This is the case in Mali, Niger and other countries in the sub-region.

Difficulties in local wire loop access

Lack of policy vision of decision-makers.

Using telecommunications as a development factor is not well assessed by policy-makers.

Daily matters such as salary payments, or the keeping of medical, road or agricultural infrastructures have more importance than telecommunications.

Difficulties in local wire loop access

Bad urban planning and social difficulties

Bad urban planning has made the cost of telecommunication infrastructures higher.

Social difficulties in some countries has not made investment in the sector possible. The wire network does not exist or is totally destroyed.

Difficulties in local wire loop access

I.2 – Consequences of those difficulties of access

A low teledensity in wire network.

Lack of growth effect on economic development.

Dissatisfaction of populations

Difficulties in local wire loop access

I.2 – Consequences of those difficulties of access

Former operators not prepared to face competition.

Lack of telecommunication infrastructures in some areas of the country.

Fixed wireless a solution for mass access.

II.1 – Technical aspects.

To solve some of those problems some countries or operators have chosen a fixed wireless solution.

Many technologies are used among which CDMA.

Fixed wireless a solution for mass access.

Fixed wireless a solution for mass access.

II.1 – Technical aspects.

II.2 – Financial and pricing aspects.

II.3 – Legal aspects.

Fixed wireless a solution for mass access.

II.1 – Technical aspects.

The technology is that of a mobile network with the possibility of placing a subscriber in an area (cell) whose covering rays vary according to the height of the pylon and orientation of the broadcasting antenna.

Fixed wireless a solution for mass access.

II.1 – Technical aspects.

A technology for voice and data transmission up to 2 Mgbps.

Fixed wireless a solution for mass access.

II.2 – Financial and pricing aspects.

The CDMA network has a lower investment cost. It has the advantage of being built on an existing network which leads to substantial savings.

In switching, savings are possible if the existing switch can handle mobile access.

Fixed wireless a solution for mass access.

II.2 – Financial and pricing aspects.

The CDMA network is built on an available transmission network.

Finally, savings are also possible when using existing transmission pylons for CDMA access networks.

Fixed wireless a solution for mass access.

II.2 – Financial and pricing aspects.

CDMA network integrates data transmission system which leads to saving money on building data network.

CDMA can be a credible alternative to Wifi network.

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II.2 – Financial and pricing aspects.

Pricing must take into account not only cost, but also the fact that speaking for too long occupies the radio and thus degrades the quality of service.

As a result, fixed price tariffs must be studied closely to avoid congestion on the BTS.

Fixed wireless a solution for mass access.

II.3 – Legal aspects.

Three regular problems are to be solved

Authorization of exploitation

Frequencies to be used

Mobility of subscribers

Fixed wireless a solution for mass access.

II.3 – Legal aspects.

Authorization of exploitation

We must be sure that the operator has a licence to operate a wireless network.

We must grant former operators licences for wireless networks as traffic tends more and more towards mobiles.

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II.3 – Legal aspects.

Frequencies to be used

We must be sure of the availability of the frequencies to be used. The frequencies allowed must conform to those of the manufacturers.

Operator must pay for the use of frequencies.

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II.3 – Legal aspects.

Mobility of subscribers

The system offers mobility at two stages :

Base Station.

Roaming of subscribers.

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II.3 – Legal aspects.

Mobility of subscribers

Regulatory bodies – should they limit coverage?

Roaming by subscribers - should it be prohibited ?

Fixed wireless a solution for mass access.

II.3 – Legal aspects.

Mobility of subscribers

Regulatory bodies must think of technological neutrality and the convergence of services.

Discussions remain open for a harmonious development of services of telecommunications for many users.