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Workshop on Novel Telecommunication Technologies
for Socio-Economic Development
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PROJECT PROPOSAL

**ENHANCED BROADBAND ACCESS THROUGH PILOT
NATIONAL APPLICATIONS**

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Project Proposal

Project Title:	Enhanced broadband access through pilot national applications		
Lead Organization:	Alcatel		
Potential Partners:	ESCWA, Ministries of Information technology, Telecom operators, Internet Service Providers, Content and Application providers		
Primary Objective:	Develop the potential of broadband access within the ESCWA countries leveraging on relevant content and applications		
Beneficiaries:	End-Users of telecommunication networks and the Internet within ESCWA countries and operators and Internet service providers		
Budget Estimate:	US\$ 1 Million		
Potential Funding Agency:	Kuwait Fund for Arab Economic Development (KFAED), Islamic Development Bank (IDB),...		
Starting Date:	1 st Quarter 2005	Duration:	24 Months

Executive Summary

Broadband Access is now considered as an important lever for development by many ESCWA countries. Countries that developed a national data backbone network with sufficient capacity and have a decent level of wire-line telephony penetration consider the DSL (Digital Subscriber Line) technology as an effective mean to provide end-users with a new kind of Internet applications and services that goes far beyond what was possible with previous dial-up narrowband access.

Jordan, for instance, used the DSL technology provided by Alcatel and provided all of its schools and universities with a broadband access. The potential offered by broadband access to improve the education of pupils and students is self-evident ; it also opens the possibility for new e-education applications not feasible previously. Egypt's Ministry of Education likewise announced a plan to provide 7000 preparatory schools nationwide with a broadband access.

In May 2004, the MCIT (Ministry of Communication & Information technology) of **Egypt** published its national broadband initiative. This project is targeting the increase in broadband penetration with an objective of attaining 100000 subscribers by the end of 2005. It must be said that Egypt has dramatically developed its wire-line telephony access during the last few years : Egypt Telecom has currently a network with a total capacity of 10 Million lines.

This project seeks to capitalize on the main asset of the ESCWA countries, that is, the existence of a modern wire-line telephony networks within each respective country in order to unleash the "**Broadband Potential**" of this infrastructure laid out by the national telecom operators. Moreover, the level of investments that is needed to materialize this Broadband potential is by far much lower than the one that was needed to laid out this basic wire-line infrastructure.

Notwithstanding the above argument related to cost, this project will address the two key difficulties facing broadband deployment that is:

- the development of **sustainable demand** from end-users and, in a related manner,
- the elaboration of **viable business models** for all actors involved (content providers, telecom operators and internet service providers) in the value chain.

1. Objectives

The main driving force behind this initiative is the end-user. The increase in Broadband penetration will lead to the growth of applications and value added services in various domains such as e-education, e-government, e-health, e-commerce but also improve the distribution of infotainment and entertainment content. The above factors will ultimately impact the economic growth of the concerned countries and of the region as a whole.

As said above the related objectives of sustainable demand and viable business models must be sought concurrently.

Sustainable demand cannot be ensured without content, services and applications that are fitted to the **local needs** of the concerned populations. Awareness campaigns are of course important but these will not bring any tangible results without a proper offer that corresponds to the needs of the public to whom they are addressed. Alcatel will apply the experience acquired during its active contribution to the detailed definition of the **EU eEurope initiative** and work with all regional parties to define a corresponding regional blueprint. Moreover, Alcatel developed through its vertical markets approach a detailed expertise in various application domains such as e-education, e-government, e-health and e-commerce that could be helpful for the definition of useful local services and applications within the above domains. This expertise will be used during the coaching of partners by Alcatel within its partnership space project (see related project description file).

Development of sustainable business models for the actors involved in the deployment and service delivery of broadband access and applications is the second critical objective of this project. Alcatel, being a major actor of broadband equipment and a worldwide leader in DSL, developed a detailed know-how and methodology for its customers to help them establishing sound business cases for their broadband deployments. It must also be noted that the experience acquired by major actors (telecom operators and Internet Service Provider) of Europe and elsewhere in their broadband deployments could usefully serve as a guidance for the regional actors involved in this endeavor. Coming late can sometimes be useful because it allows learning from other's experience and mistakes. Alcatel having closely accompanied the above-mentioned actors is in a very good position to help the regional actors establish their business cases for broadband deployment.

2. Background and Justification

ESCWA countries are characterized by numerous factors that constitute a fertile ground for the development of broadband access:

1. The availability of a decent level of wire-line telephony penetration characterized by an ubiquitous access within all major cities and a fairly good access within rural areas; as one official from Egypt's MCIT put it recently "waiting lists to obtain a telephone line are now something of the past". It must be said that many ESCWA countries conducted during the last decade a modernization and extension effort of their wire-line telephony infrastructure and have now a modern and state-of-the-art infrastructure.
2. The good education level among the population, its youth and willingness to access to information and knowledge with powerful and new methods.
3. The political willingness of many governments to use access to information and communication technologies as a lever for development in line with their commitment to the declaration and plan of action of the World Summit on Information Society; many countries have now an established Ministry dedicated to ICT and published national blueprints for ICT development and sometimes for broadband in particular. The example of Egypt's broadband initiative will likely be followed by many other countries of the region.
4. The availability of local actors (content providers, software application providers, Internet service providers,...) willing to expand their business leveraging on the high potential of the local market demand and the availability of an educated and well-trained staff.

3. Project Description

The project presented herein is articulated along inter-related support actions of regional actors at various levels: regional, national, and individual actors involved with the deployment of the broadband infrastructure and/or the content and applications provisioned through it.

It is expected that ESCWA will take the lead with the close support of Alcatel for the regional and national awareness levels whereas Alcatel will take the lead in coordination with ESCWA for the support of regional telecom operators, content providers and ISPs.

The implementation strategy of this program is articulated on a thorough preparation of an important regional event where all issues of DSL Broadband deployment will be explained with state-of-the-art presentation on technical, economic and regulatory issues drawn from the experience of developing European countries and elsewhere in Asia and the US.

Regional actors at all levels are expected to attend this workshop that will be the trigger point for individual actions at national and individual companies levels. These actions will deal with the development of national strategies, the elaboration of valid business models and the development of relevant local content and applications.

The actions undertaken by this project must address comprehensively all the technical, business and regulatory issues related with broadband deployment. Key for success is the adoption of a global and inclusive approach where all actors – at various levels – be actively involved and have a say in this endeavor.

The ultimate objective being that the expected blueprints for broadband deployment be elaborated with, and already start getting implemented by, the concerned actors on the field.

4. Expected Accomplishments and Indicators of Achievement

Expected Accomplishments	Indicators of Achievement
Establishment of a regional broadband initiative	This initiative to be elaborated under ESCWA coordination will capitalize on existing published national initiatives of member countries and serve as a guidance for other initiatives to come from the region
Establishment of national broadband initiatives	At least 6 ESCWA countries have adopted a national broadband initiative with measurable objectives
Realization of broadband deployments within a significant number of countries of the region with a special emphasis on the connection of education establishments	<ul style="list-style-type: none"> - At least 4 ESCWA countries have provisioned a significant number of their educational institutions (schools, universities) with a broadband access - At least 4 ESCWA countries have achieved a broadband penetration rate within the range of 1-5% of their households
Development and actual provision of relevant content, services and applications through broadband access	<ul style="list-style-type: none"> - At least one significant offer of a bouquet of regional television content is provisioned through broadband access within 2 ESCWA countries - Significant e-education content and application are offered in 4 ESCWA countries

5. Activities

1. Elaboration of a regional blueprint for broadband deployment

It is foreseen that 2 regional workshops will be organized with the largest participation from all regional involved parties (governments, content providers, telecom operators and ISPs) and high-level international experts.

The first workshop will present a comprehensive in-depth state of the broadband deployment problem in all its aspects (technical, economic and regulatory) and will allow participants to eventually provide comments and contributions.

The second workshop will consolidate the results of the consultations and comments received since the first workshop and will serve to finalize the regional blueprint.

ESCWA will lead this activity with the active support from Alcatel.

2. Elaboration of national blueprints for broadband deployment within selected ESCWA countries

This activity will take the form of a consultancy to national governments of ESCWA countries to elaborate or re-visit their national broadband deployment blueprint following the first or the second regional workshop of the previous activity.

The objective of this consultancy is to consider specific national conditions and come out with specific recommendations and national objectives for broadband deployment.

ESCWA will lead this activity with the active support of Alcatel.

3. Development of business models for DSL infrastructure deployment

It is expected that following the first regional workshop many actors (content providers, telecom operators or Internet Service Providers) will manifest interest in the deployment of broadband infrastructure for the benefit of their business.

These actors will be willing to carry out the needed investments only to the extent that a viable business exist to ensure a return on their investments within a reasonable delay.

The objective of this activity therefore is to carry out a consultancy to actors who present interest taking into account the specific conditions of their business and state of their network and the country(ies) conditions where they operate.

Alcatel will lead this activity in coordination with ESCWA.

4. Development of local content and applications

One key success factor for broadband deployment is the availability of content and services relevant enough to motivate end-users adoption.

This activity deals with the support of selected projects whose objective is the development of added-value content and applications that can be provisioned over a DSL broadband access.

This support can take various forms of consultancy in the development of e-education, e-health and e-government applications as well as a consultancy on provision of video and TV content over DSL.

This activity ensures the link with Alcatel's "Partnership Space for Incubation" project where it is expected that partners of this centre will likely develop local added-value applications related to the above-mentioned application domains.

Alcatel will lead this activity in coordination with ESCWA.

6. Budget and Time Line

Note: the budget presented in this section represent only the cost of actions realized by Alcatel for the above-mentioned activities.

Activity 1: Timeline: t0 to t0+12 months; Workshop 1 at t0+6months; Workshop 2 at t0+11 months.
Budget: 100,000 US\$ per workshop; 200,000 US\$ for the two workshops.

Activity 2: Timeline t0+6 months to t0+18 months.
Budget: 50,000 US\$ per country; 300,000 US\$ for 6 countries.

Activity 3: Timeline t0+6 months to t0+24 months.
Budget: 50,000 per operator case study; 300,000 US\$ for 6 case studies.

Activity 4: Timeline t0+6 months to t0+24 months.
Budget: 25,000 per application case study; 200,000 US\$ for 8 case studies.

Total estimated budget of US\$ 1000,000.

