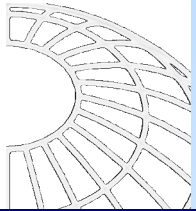# ITU-EC HIPCAR Project

Enhancing Competitiveness in the Caribbean through the Harmonization of ICT Policies, Legislation and Regulatory Procedures

Second Stakeholder Consultation Workshop on UAS, Interconnection and Licensing
St. Lucia, July 12-13, 2011

Universal Access and Service

Sofie Maddens
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Telecommunications Management Group, Inc.

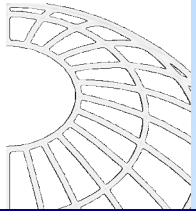ENSURING TELECOMMUNICATIONS SUCCESS AROUND THE WORLD

Agenda

- ## Introduction

- ## Innovative approaches to universal access and service (UAS) – Case Studies

- ## UAS in Practice

  - Program Definition

  - Project selection

  - Project implementation
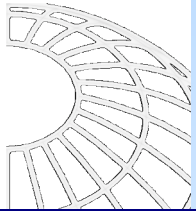
  - Monitoring and Evaluation

Introduction

- Where market forces do not fully address the gaps, countries are faced with the need to define a strategy to achieve UAS and to manage and finance it in a marketplace increasingly characterized by competition

- Elements of Strategy
  - Market reform and UAS
  - Designation of Universal Service Providers
  - Other Approaches to UAS
  - Financing of UAS

Innovative Licensing Approaches to Achieve UAS Goals

International Telecommunication Union

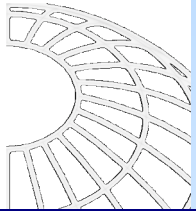Committed to connecting the world

Introduction

- Licensing provisions can create a positive investment climate and increase the rate of network development through the application of appropriate, consistently applied regulations and incentives
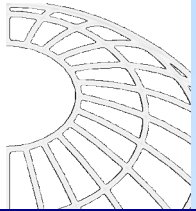
Introduction

- To extend main network coverage to the limits of viability or beyond, various approaches may be used, including **ambitious roll-out requirements**, which would require the coverage of marginally viable areas – such requirements may be stated in the initial invitation to tender
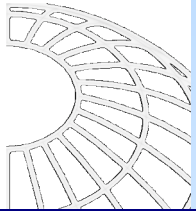
Introduction

- Instead of specifying the required coverage and asking bidders to compete on the fee they will pay for a license (a common practice), another technique is for the license fee to be fixed at a moderate level with **bidders asked to compete on the amount of coverage or other benefits to the country that they will commit to provide**

  - **Example: Portugal for 3G licensing**
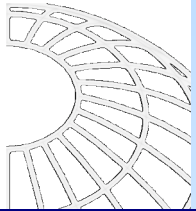
3G Tender Portugal

- **Background**

  - The promotion of the Information Society was one of the main priorities of government, with the aim of receiving proposals which paid special attention to promoting the Information Society, and included original thinking related to:
    - Bringing the information society to people with special needs
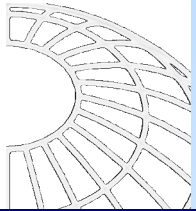   - Coverage of regions "with special needs"

3G Tender Portugal

- **Government of Portugal's stated objectives:**
  - To encourage the development of the information society in Portugal
  - To enhance competition in the mobile market
  - To encourage a sustained development of operators, including potential newcomers
  - To enlarge the choice of consumers

3G Tender Portugal

- **Ambitious Coverage Obligations in Tender Rules**
  - Establishment of minimum coverage obligations, with detailed specifications included in the tender regulations according to the following schedule:
    - 20% coverage of the national population by the end of the first year of the license coming into force,
    - 40% by the end of the third year, and
    - 60% by the end of the fifth year

3G Tender Portugal

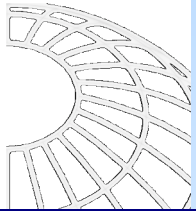| Evaluation Criteria	Weighting
Contribution to the development of the Information Society	50%
Contribution to the development of effective competition	20%
Quality of the Technical proposal	15%
Quality of the Economic and Financial proposal	8%
Contribution to the development of a sustainable economic activity	7%

3G Tender Portugal

- **Factor: contribution to the development of the Information Society – 50%**
  - Coverage indicators
    - Population covered
    - Surface covered
    - Areas covered
    - Roads covered

  - Promotion of universal access and of info-inclusion with an <u>economically accessible offer targeted at different user profiles</u>
    - Price policy (reference prices, flexibility, promotional policies and discounts)
    - Special conditions for <u>low income population</u> (notably in terms of access, prices and quality)
    - Special conditions for <u>users with special needs</u>
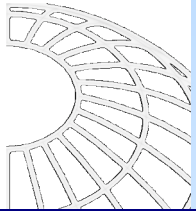   - Special conditions for <u>institutions with special needs</u>

3G Tender Portugal

- **Factor: contribution to the creation of effective competition – 20%**

  – Diversity and differentiation of the range of services with <u>special emphasis to the offer of innovative and convergent services/content</u>

  – Conditions associated with the roaming offer
    - Phasing of the offer
    - Coverage
    - Other aspects (notably price policy)

  – Global quality of the services
    - Commercial quality (amongst others access, customer care service, after sales service, commercial policy related to the replacing of equipments, billing)
    - Other quality parameters, notably related to dispute handling and information policy to the users

3G Tender Portugal

- When combined with lower license fee expenses, more flexible policies have given operators more strategic and financial flexibility to launch infrastructure and service projects thus contributing to the achievement of UAS

- Mobile penetration amounted to 136.96% in October 2008, which is above the EU average (118.9%) and shows the intensive use of mobile services by Portuguese subscribers
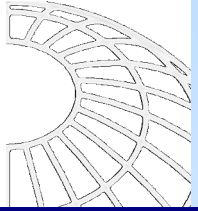
Case 2: Other Private Sector Contributions to Achieving UAS

The Case of Bangladesh

Introduction

- Bangladesh does not have an established universal service fund

- Instead, universal service/access has been achieved through the efforts of Grameenphone and the Village Phone Program

Legal Framework and Scope

- The Telecommunication Act 2001 defines universal service as: *"providing telecommunication service to any citizen of Bangladesh or to other persons irrespective of their place of stay or occupation in Bangladesh"*

- Telecommunication service is broadly defined and includes basic telephone service, value-added services and Internet service

Legal Framework and Scope

- The mission of the Bangladesh Telecommunication Regulatory Commission (BTRC) was as follows:

  – Increase the teledensity to at least 10 telephones per 100 inhabitants by 2010;
  – Establish a phone in every village by 2006;
  – Promote ICT applications to support socio economic development;
  – Create an enabling environment and customer choice for ICT services;
  – Encourage joint Public-Private cooperation in ICT development; and
  – Encourage ICT applications which stimulate poverty reduction

Legal Framework and Scope

- The Act does not provide for the BTRC to establish a universal service project or universal service fund

- However, it does provide the BTRC discretion to include a compulsory obligation in the operator's license requiring them to provide the licensed services to rural and sparsely populated areas, although not exceeding ten percent of the licensee's capacity
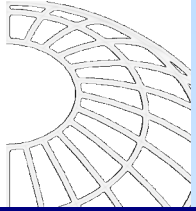
Achievement of UAS

- According to the Bangladesh Bureau of Statistics, more than 75 percent of Bangladesh's population lives in rural areas

- Telecommunication access to most of these rural areas is mainly being provided not by government mandate but through Grameenphone's Village Phone Program

- Grameenphone is a joint venture enterprise between Norway's Telenor (62%) and Grameen Telecom Corporation (38%), a not-for-profit subsidiary of Grameen Bank, a micro-credit pioneer and "internationally reputed bank for the poor"

Achievement of UAS

- The Village Phone programme was incorporated within Grameenphone's operations by coordinating among three entities.

  - First, Grameenphone built the cellular network and sold the service to its urban consumers.

  - Second, Grameen Telecom, a non-profit organisation of the Grameen family of companies that held a stake in the partnership, bought bulk airtime from Grameenphone and sold it to its Village Phone operators.

  - Finally, the Grameen Bank helped the Village Phone operation by providing loans and infrastructure to the operators through its branches to buy phones and subscribe to the Village Phone services.

Achievement of UAS

- To operate the program, Grameen Telecom buys bulk airtime from Grameenphone at a deep discount of up to 50 per cent

- As a result, the Village Phone tariff is and has always been lower than that of Grameenphone's other subscription plans
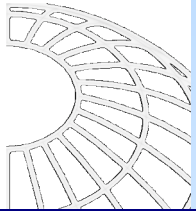
Achievement of UAS

- In addition, since 2010, the leading mobile phone operators in Bangladesh concluded agreements to share infrastructure to expand their services in rural areas.
  - Warid and Citycell entered into such an agreement to share base transceiver stations, towers, poles, equipment, and communication bandwidth.
  - Warid has similar arrangements with the Bangladesh Telecommunications Company Limited and the mobile phone operator Teletalk Bangladesh Limited.
  - The top three operators in the country Grameenphone, Banglalink and Robi (formerly Aktel) also signed such infrastructure-sharing deals.
- All these came after the Bangladesh Telecommunication Regulatory Commission issued guidelines in September 2008, making such sharing mandatory
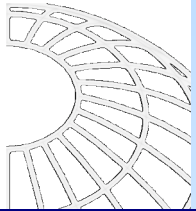
Achievement of UAS

- The initiatives of private companies like Grameenphone and Grameen Telecom's Village Phone Program in Bangladesh demonstrate the possibility of successfully extending universal service and access to remote rural villages by means other than a universal service fund

- Furthermore, the Bangladesh Village Phone Program is an example of the break with tradition for the provision of UAS solely by fixed line operators
  - Bangladesh exemplifies the emergence of mobile technology as the dominant and preferred method to providing universal access/service, particularly in developing countries where mobile penetration rates are higher than fixed line penetration rates

Case 3: Pay or Play
The Case of Morocco

Legal Framework and Scope

- Universal service is defined in the general telecommunications law and seeks the nation-wide expansion of services

- Services include fixed residential, public payphone, mobile cellular, mobile payphone, fax, dial-up and broadband Internet access, telecenter, emergency and directory services

- The scope of universal service has also been expanded to include an additional *aménagement du territoire* concept, which can be translated as "development of the national territory"

Legal Framework and Scope

- The main components of the universal service framework in Morocco include the following aspects:

  - An interministerial committee (the CGSUT), which designs and selects national universal service projects;

  - A universal service fund (FSUT), which was created in 2005 to fund universal service projects selected by the CGSUT;

  - Introduction in 2004 of a new "pay or play" approach to operators' contributions to the universal service mission, so that telecommunications network operators may either:

    - pay an annual contribution of two percent of revenues net of taxes and interconnection costs or
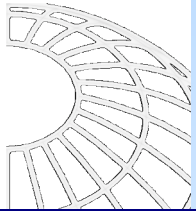   - carry out CGSUT-approved universal service projects

Legal Framework and Scope

- 2004-2008 period: regulation of the telecommunications sector in Morocco resulted in the award of two fixed-line telephony licenses, three third-generation (UMTS) network licenses, and a third second-generation mobile phone license, as well as the implementation of major regulatory levers, i.e., unbundling, number portability and carrier pre-selection

- 2008-2013: the principal regulatory measures for this period include: infrastructure sharing, elimination of unbundling rates, improvement in current portability timeframes, major reduction in interconnection rates with the introduction of temporary asymmetry up to 2013, and control over retail

- For the years 2008-2011, ANRT has issued a call for tenders to all national operators to undertake a vast universal service program entitled "PACTE," aimed at covering all the dead zones in Morocco in phone and Internet access services, i.e., 9,263 locations. The Universal Service Management Committee selected Maroc Telecom Group for 7,338 of them, for an aggregate of €104 million, to be deducted from its universal service contribution for the years 2008-2011
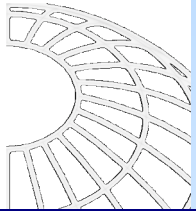
Impact of UAS Policy

- IAM and Meditel have chosen to fulfill their universal service obligations through the "play" option

- Universal service obligations (USOs) for these operators include:

  – Operators are subject to coverage obligations in terms of geographic coverage and localities, roads and railways. These obligations are included in the licenses

  – Operators are subject to an annual universal service contribution of up to 2% of annual net revenue net of interconnection costs and originating from the services covered by this license

  – Operators are granted a universal service license which allow them to carry out specific projects to meet universal service obligations as per that particular license and reduce contributions in the areas for which there are universal service projects
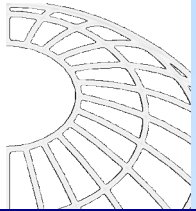
Impact of UAS Policy

- **According to the regulator, the overall approach to UAS has been successful**
  - In terms of projects chosen, there has been
    - the National Human Development Initiative (INDH)
    - the establishment of public rural telephony projects
    - the creation of community ICT centers
    - the expansion of broadband networks
  - Since 2005, nine universal service projects were suggested by existing operators and approved.
    - Projects included providing 1,556 rural villages with telecom services (voice and Internet access) and from 2005-2008 received 600 million Dirham (US$74.616) from the FUST in subsidies
  - The "GENIE" Program also received a one billion Dirham (US$124 million) subsidy
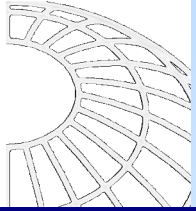
Impact of UAS Policy

- Maroc Telecom signed its fourth and final agreement with ANRT under PACT with the latest phase to cover 1,573 villages as part of a project to serve 7,338 rural communities including many in remote areas, under a total investment of around MAD2.8 billion (USD345 million)

- Maroc Telecom provides that 5,765 communities will have received its telecoms services in three phases between 2008 and late-July 2011, and by 31 December 2011 the entire population living in 7,338 areas will have access to mobile telephony and emergency services numbers.
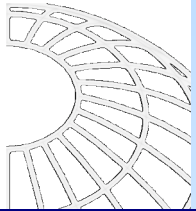
Impact of UAS Policy

- Morocco is one of the most advanced telecommunications markets in Africa, featuring a majority-privatised, highly profitable incumbent telco (Maroc Telecom), three fixed and mobile network operators, as well as the highest penetration and some of the lowest prices on the continent for broadband Internet access

- The fixed-line market experienced a renaissance, following the launch of the second and third network operators (Meditel and Wana) and fuelled by the growing demand for broadband services

- With all three major players being fixed as well as mobile network operators, the boundaries between fixed and mobile are beginning to disappear as technologies and services converge. Innovative new services have been introduced such as the first commercial IPTV service on the continent.
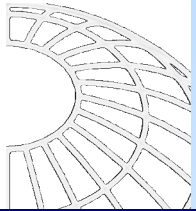
Impact of UAS Policy

- Most of the new connections are wireless and increasingly converging with mobile services

  – Morocco's mobile market, at already more than 80% market penetration and one of the highest in Africa, received a late boost in early 2010 from the launch of GSM services by the country's third mobile network, Wana, which had already been operating a CDMA2000 network since 2007

  – To accommodate the increasing amount of voice and Internet traffic, the operators are upgrading their fiber optic national backbone networks and international connectivity

Case 4: Extending Broadband
The Case of USA
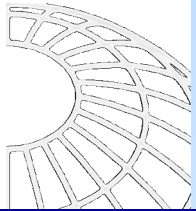
Broadband in the U.S.

- Universal service fund monies have not adequately responded to the evolution of technology

- Broadband has yet to be deployed to rural and low income areas

- Broadband is viewed as critical to spur long-term economic growth

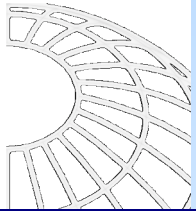# Legislation

- On February 17, 2009 President Obama signed the American Recovery and Reinvestment Act of 2009 into law

  – The law allocates monies and requires establishment of grant programs to fund deployment of broadband infrastructure

  – These monies are distinct from the formal universal service subsidy system

  – $7.2 billion in stimulus funds earmarked for domestic broadband investment

Legislation

- **Allocation of the funds:**
  - The law allocated $4.7 billion to the Department of Commerce's National Telecommunications and Information Administration (NTIA)
    - NTIA established the Broadband Technology Opportunities Program (BTOP)
  - The law also allocated $2.5 billion to the Department of Agriculture's Rural Utilities Service to expand broadband to rural areas

BTOP Program
General Info

- Guidelines for grant applications were developed through series of public meetings to solicit input

- The goal is for grant recipients to provide broadband access to rural and low income areas

- Funding was available until September 30, 2010

- Broadband projects must be substantially completed within two years of the award and fully completed within three years

Notice of Funds Availability

- ## The $1.6 billion first tranche of funding was announced on July 1, 2009 in the Notice of Funds Availability (NOFA)

  - The **Broadband Infrastructure** category (up to $1.2 billion) funded projects that deliver broadband service through Last Mile or Middle Mile facilities to unserved and underserved areas

  - The **Public Computer Center** category (up to $50 million) funded projects that expand computer center capacity at entities that permit the public to use these computer centers, such as community colleges and public libraries

  - The **Sustainable Broadband Adoption** category (up to $150 million) funded innovative projects that promote broadband demand, such as projects focused on broadband education, awareness, training, access, equipment or support, particularly among vulnerable populations

Notice of Funds Availability

- Broadband defined as two way data transmission – at least 768 kbps downstream and 200 kbps upstream
- Must show that project would not be implemented during the grant period but for a federal grant
- Project must be sustainable beyond the funding period
- Applicants must commit to non-discrimination and interconnection obligations
- Technology neutral

UAS in Practice

UAS Programs and Projects

- Using the policy and legislation as a guide, an important first step for Funds is to decide what their priorities are and design *programs* to fit those priorities

- Projects must then fit within the scope of a program, and responsibility and accountability is clear within the Fund structure

- The American Universal Service Fund, which is administered by the Universal Service Administrative Company (USAC), under the direction of the Federal Communications Commission (FCC) has four programs: High Cost Areas, Low Income groups, School and Libraries and Rural Health Care Programs
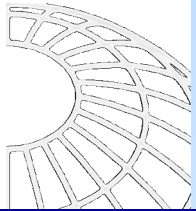
Program Definition

- Some of the main steps to develop a universal access and service (UAS) program include:
  - ICT sector review
  - demand analysis
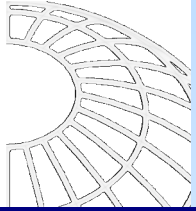 - subsidy estimation
  - prioritization of projects

ICT sector Review

- The sector analysis helps to ascertain the country's current UAS status and answer the question:

  What areas and population groups do not yet have affordable access to ICT services?

- This results in a detailed identification of service gaps in the country

Demand Analysis

- Such analysis aims to quantify the demand for various ICT services in those areas that are unserved, as well as to qualify the demand, e.g., at what price point and for which level of service is there a need or a demand

- The purpose of this step is to:

  - Identify which areas (regions, provinces, districts etc.,) of the country are to be included into the UAS program;

  - Identify which ICT services are required in each of these areas; and

  - Quantify the demand for those ICT services, to be used to model potential revenues, which in turn helps to prioritize projects within the UAS program.

Interesting Reading

- http://dh.burundi-gov.bi/Burundi-ICT-National-projects-for

Subsidy Estimation

- With the groundwork laid in identifying unserved communities and quantifying their demand, policy makers/regulators should then determine how much it will cost to provide UAS services.
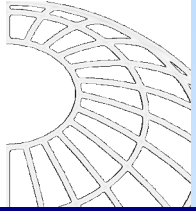
Project Prioritization

- There are several approaches to assessing or analyzing a program's socio-economic impact or to prioritizing between several universal access and service (UAS) projects. They are as follows:

    – Qualitative approach;

    – Quantitative approach, using Net-Present Value (NPV) or Internal Rate of Return (IRR) analysis;

    – Comparative subsidy analysis; and

    – Subsidy cost per beneficiary comparisons

Project Design

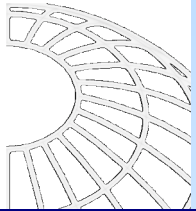- Project design is not a 'one size fits all' approach- projects need to be specific to the needs and gaps as identified through the conducting of detailed market research and stakeholder consultation

  - Historically 1st generation Fund projects have been primarily top down (e.g. Colombia, Peru), with the Fund defining the locations and requirements

  - Bottom-up approaches through community involvement, particularly in public access projects, is a critical element that informs the sustainability of projects
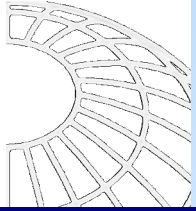
Key Project Elements

– Well Designed projects :

  • Targeted

  • Measurable

  • Sustainable

– Successful Projects:

  • Commercially successful (i.e. successful from a market perspective) and

  • Successful from a developmental perspective.

UAS Bidding process

- The various steps of the UAS bidding design process are as follows:
  - Formulate the bid objectives and desired outcomes;
  - Articulate bidder eligibility, UAS areas, and separate or bundled UAS service provision;
  - Present the UAS bidding strategy and detailed projects to potential bidders for discussion and integration of feedback;
  - Conduct detailed design of the bidding process, including key parameters of the subsidy contract and license;
  - Prepare detailed bidding documents; and
  - Ensure a transparent bidding process.

Formulate Bid Objectives

- The formulation of bid objectives and desired outcomes is based on each country's UAS policy

- In addition to achieving the UAS targets, bid objectives could include minimizing subsidies or increasing competition in the market

Decide on Eligibility

- Decisions on who is eligible for participation in the competitive tender for subsidies have an impact on the objectives and desired outcomes

- Key questions:
  - Are government-owned companies eligible to participate in UAS competitions; and
  - Can new entrants and smaller players compete for subsidies or are subsidies only available to companies that are already licensed and contributing to the Universal Access and Service Fund (UASF)?

Develop UAS bidding strategy

- The main considerations when developing UAS bidding lots are as follows:

  - Maximizing and sustaining competition
  - Deciding on the most marginal localities
  - Offering bidders maximum choice and flexibility (small units)
  - Limiting dominant positions of a UAS provider (limiting regions)
  - Deciding on whether to bid certain universal access and service (UAS) requirements separately or bundled
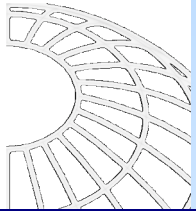 - Minimizing the subsidy amount needed by operators:

Decide on Bidding Process

- Pre-qualification required or not
- One stage or two stage approach
- One envelope or two envelope approach
- Bidder and consortia eligibility criteria
- Financing capacity and operational experience
- Incorporation of bidder
- Bidder selection
- Details of Contract or License
- Bid/Performance Bond
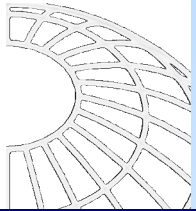
Bidding Documents

- The bidding documents for a universal access and service (UAS) competition provide complete information on the following four key elements of the UAS bidding program:

    – The context and background of the UAS bid (e.g., the UAS policy, overall program and government commitment), including a detailed description of the particular UAS project for which the tender is called;

    – The detailed requirements and obligations of the UAS service provider (i.e., the winning bidder);

    – The rules and procedures of the bidding process itself; and

    – A draft contract, also called the UAS Service Agreement, and a draft license (including spectrum license and numbering rights, if required).

    – In many cases the bidding documents also include specific forms, or templates, to be completed by the participating bidder.

    See: http://www.ictregulationtoolkit.org/en/Section.3301.html for key elements

Uganda School Connectivity Case Study

Eligibility Requirements

- The proponent must not have applied for or received any funding for the establishment and/or operation of an Internet Centre or any services that could be construed by UCC as a duplication of funding;

- The proponent must ensure the existence of a reliable power supply for personal computers (PCs) and Internet access;

- The proponent must have a clean, ventilated and secure premises to house the Internet Centre;

- The premises that are expected to house the Internet Centre must be located within the service area of a commercial Internet access provider that can provide medium/high-speed Internet;
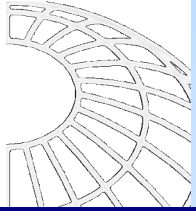
Eligibility Requirements

- The proponent may not already have medium/high-speed Internet access at the time of application;

- The proponent must demonstrate proof of its own funds and planned budget items over three years to be spent on the Internet Centre - USD 2,700 for schools (10% of subsidy offered); and

- The proponent must demonstrate that it has a level of ICT capacity that is sufficient to operate, manage and maintain a *Internet Centre. Specific requirements of this capacity are as follows:*
  a. Ownership of at least two PCs and a printer; and
  b. At least one resident staff person with competency in computer and software use, maintenance, training and troubleshooting.

Documentary Evidence
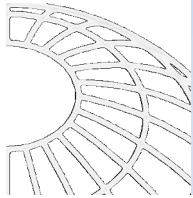
- Required from the schools to support the above criteria, including a statement of compliance and a description of the respective facilities, conditions and resources.

- The eligibility requirements were evaluated by a simple PASS or FAIL assessment and constituted a pre-qualification process; only the secondary schools that passed had their proposal reviewed.

- However, a FAIL did not necessarily disqualify a proponent immediately because in some cases this was due to a small amount of missing information in an otherwise complete proposal. It was concluded that proponents should have an opportunity to supply missing information if it seemed to be an oversight or minor issue.

- Nevertheless, the lack of adequate power supply was considered an impassable hindrance for the award of the subsidy.
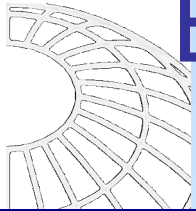
FORMS

	Name of School	
	District	
	Address	
	Contact	Name Title Phone & fax Email
1	No. of school-based users	List the main user groups of the School Internet Centre, including numbers, e.g.,: • 850 students • 30 teachers • 5 administrative staff
2	Plans for intended use and benefits of the School Internet Centre	Use separate papers, write maximum of 2 A4 pages Include: • Vision, purpose and plan of the School Internet Centre; • Specific intended uses of the School Internet Centre; • Benefits of the School Internet Centre.
3	Plans on how the School will implement ICT training in its curriculum, and improve ICT capacity among its teachers and administrative staff	Use separate papers, write maximum of 2 A4 pages Include: • Training plans for teachers; • Training plans for administrative staff; • ICT Training for its pupils; • Use of ICT for specific subject lessons (e.g., mathematics, geography, biology, etc.)
4	Plans for the operation and management of the Internet Centre	Use separate papers, write maximum of 2 A4 pages Include: • Description of the operational and management plans for the Internet Centre • Description of who will be responsible for the financial, technical/ operational and human resource aspects of the School Internet Centre

FORMS

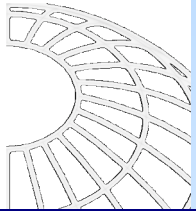|		
5	Internet Centre staff qualifications	*Use separate papers, write maximum of 2 A4 pages* *Include:* Explanation of who the day-to-day Internet Centre staff/supervisor will be and other relevant staff For each individual cited above, please provide the following information: • Name and title, Age; • Education/ qualifications; • Experience and skills relevant to the position
6	Future sustainability	*Use separate papers, write maximum of 2 A4 pages* *Include:* Explanation of how the project will be self-sufficient after the first three years: 1. General description of the sustainability plan; 2. How will you pay the monthly Internet access cost after the three-year subsidy period? 3. How will you finance the upgrade and replacement of equipment? (Provide an estimate of when the PCs, etc. will need to be replaced) 4. How will you pay for maintenance and repair? (Give estimated figures of cost) 5. How will you pay for required ongoing training courses/programmes? (Give estimated figures of cost)
7	Plan for the required Postal Services Component	*Use separate papers, write maximum of 1 A4 page* *Include:* Description of what postal services the Internet Centre will offer and how it will accomplish it
	Name and Signature of School headmaster	(Name) (Signature) (Date)

Evaluation: Point System for Proponents

Table: Evaluation Point System for Proponents	Max. points
1) Points for school-based user number/ active local NGO members	50
2) Operational methodology	20
3) Qualifications and competence of key staff	10
4) Proposed sustainability plan	10
5) Proposed plan for Postal Services Component	10

* The evaluation of proposals was based on a point system that was also published in the RFP, and the evaluation process was conducted through a team of four UCC staff and an external expert.

*The process successfully identified ten schools to receive financial support from the RCDF for broadband Internet access.

Some examples

- Uganda:
  http://www.ictregulationtoolkit.org/en/PracticeNote.3186.html

- Nepal:
  http://www.ictregulationtoolkit.org/en/Publication.929.html

Bidding & subsidy distribution process

- **Key features of transparent processes include:**

    - Advance publication of the bidding documents, with clear indication of process rules, qualification requirements and selection criteria;

    - Separation of qualification and selection processes; and

    - Transparent evaluation including competent evaluation team, public opening of proposals, separate sealed financial offers from qualified applicants.
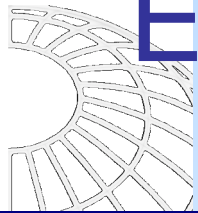
Evaluation and Monitoring of Programs

- Successful universal access and service (UAS) programs need the following:

  - The supervision of the implementation of individual UAS projects and the inspection of milestone achievements by a technical auditor for payment release

  - The monitoring of UAS projects which is helped by reporting requirements by the UAS service provider in order to have an early warning system of problems and sufficient data on which to evaluate projects later,; and

  - The evaluation of individual project performance in terms of their impact as well as a strategic review and evaluation of the UAS program and Universal Access and Service Fund (UASF) performance.

Evaluation and Monitoring of Programs and Funds

- National UAS Programs and Universal Access and Service Funds (UASF) are ideally subject to a strategic policy and management review in regular intervals, for example every three years

- The evaluation should consider:

    - The achievements of the UAS program and, if applicable, of the UASF against its objectives;

    - The impact and contribution of the UAS projects and services on the development of the country and the reform, liberalization and development of the telecommunications sector;

    - The role of the commercial sector and of development or financing partners in contributing to the UAS program implementation;

    - If applicable, the collections and disbursements of the UASF against projections and the costs and effectiveness of the UASF's management and management structure;

    - The strategic options for future development of the UAS program to further meet its objectives;

    - The financial requirements to meet these objectives, and recommendations with respect to future levies if applicable, fund raising and partnerships; and

    - Other strategic recommendations regarding the direction of the UAS program and management of the Fund, if applicable.
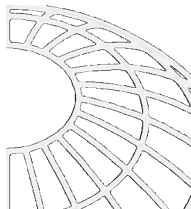
Evaluation and Monitoring of Projects

- ## A well-designed projecthas five critical components:

  – **Measurable objectives** for the project, for which indicators can be defined

  – **A structured set of indicators**, covering outputs of network or services provided in terms of the project and their impact on identified beneficiaries

  – **Provisions for collecting data and managing project records** so that the data required for indicators is compatible with existing statistics, and available at reasonable cost (where the funder is not the regulator this is one area where partnerships become useful, since this will require coordination between the entities to get data from operators if not specified in the SLAs signed at project commencement)

  – **Institutional arrangements for gathering, analyzing, and reporting project data, and for investing in capacity building**, to sustain the M&E service (where Funds are separate from regulators this may require coordination between the entities to get data from operators)

  – **Proposals for the ways in which M&E findings will be fed back to stakeholders, financiers, and other affected parties**
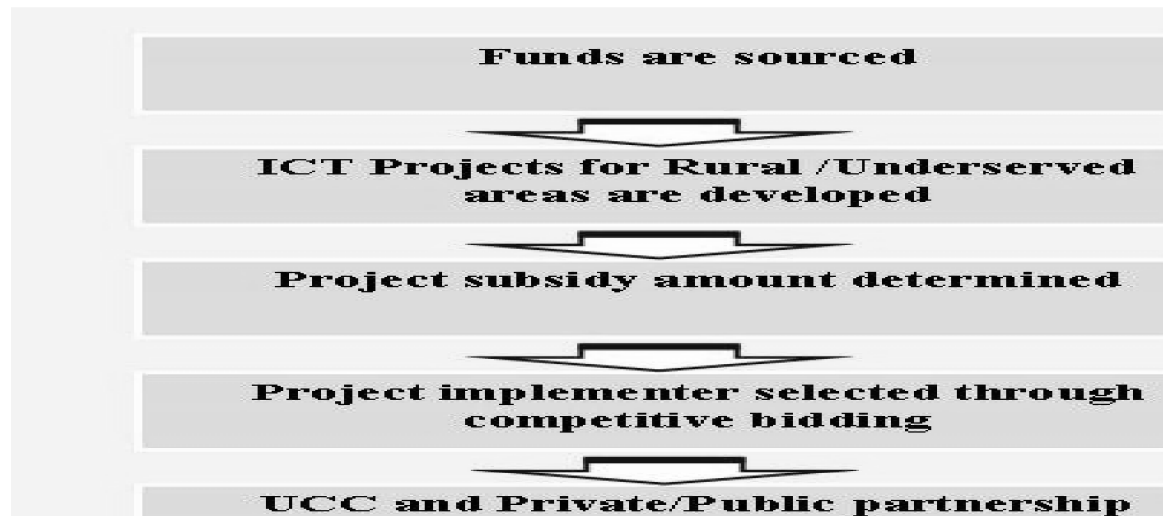
Conclusion: Overview of Process

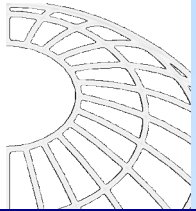**Example of Process:**

Uganda Flow Chart

Funds are sourced

ICT Projects for Rural /Underserved areas are developed

Project subsidy amount determined

Project implementer selected through competitive bidding

UCC and Private/Public partnership

Thank You!

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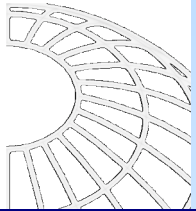**Fax: + 1.703.224.1511**

www.tmgtelecom.com

Evaluation and Monitoring

- ## FCC Monitoring Report 2010 – Schools and Libraries Program

  - Eligible schools, school districts, libraries, and consortia that include schools and libraries may receive discounts for eligible services under the schools and libraries universal service support mechanism, also known as the E-rate program.

  - The discounts range from 20 percent to 90 percent. The level of the discount is based on the percentage of students in the school or school district that are eligible for the national school lunch program (or a federally approved alternative mechanism) and location in a rural area
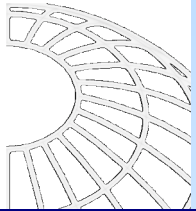
Evaluation and Monitoring

- On September 28, 2010, the FCC released an order revising the E-rate program to maximize the utilization of broadband and eliminate rules that no longer serve their intended purpose.

- The revisions adopted by the FCC fall into three conceptual categories:
  - The FCC enabled schools and libraries to better serve students, teachers, librarians, and their communities by providing more flexibility to select and make available the most cost-effective broadband and other communications service
    - Specifically, the FCC allowed applicants to lease fiber from the most cost-effective provider, including not-for-profit entities, so that applicants can choose the services that best meet their needs from a broad set of competitive options and in the most cost-effective manner available in the marketplace.
    - The FCC also changed its rules to permit schools to allow community use of E-rate funded services outside of school hours and supports broadband connections to the residential portion of schools that serve students with special circumstances.
    - Further, the FCC indexed E-rate's funding cap of $2.25 billion annually to inflation to preserve the purchasing power of the E-rate program

Evaluation and Monitoring

– Second, the FCC simplified and streamlined the E-rate application process by removing the technology plan requirement for priority one telecommunications and Internet access services, and by facilitating the disposal and recycling of obsolete equipment supported by E-rate by authorizing schools and libraries to receive payment for such equipment.

– Third, the FCC improved safeguards against waste, fraud, and abuse by codifying the requirement that competitive bidding processes be fair and open and making the gift rules under the E-rate program consistent with the gift rules applicable to employees of federal agencies.