

Bhutan Telecommunications and Broadband Policy

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Outline

- Introduction
- Milestones
- Policy- a living document
- Policy principles
- Scope and Practical Focus
- Telecommunications Policy
- Broadband Policy
- Implementation Responsibilities
- Framework for Leasing Fibers



Introduction

- Need for policy
 - Widespread use of mobile and internet
 - guide the sector's development
- Main objectives of the policy
 - Connectivity for all
 - Strengthening of regulatory environment
 - Conducive environment for private investment and competition



Milestones

1970

- Department of Telecom established

1999

- Internet and Television launched

2000

- Bhutan Telecom (BT) becomes a state-owned operator

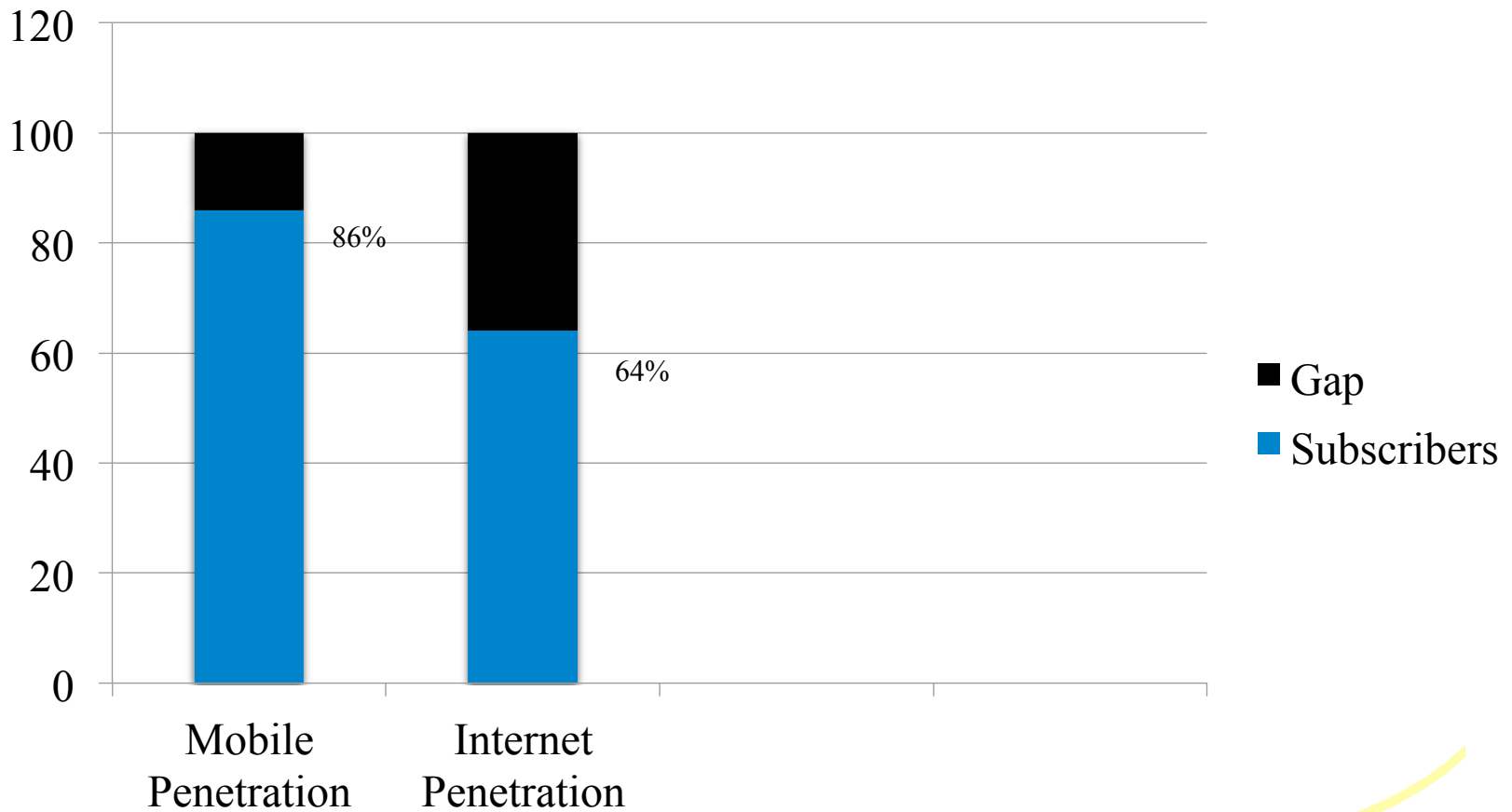
2003

- BT launches mobile services

2008

- Tashi InfoComm starts operation

Coverage





Telecommunications and Broadband Policy- a living document

- This policy
 - needs to be flexible and adaptive to reflect the pace of change in the sector
 - will be reviewed and revised to ensure maximum currency and effectiveness
- Ensure best services are delivered to the Bhutanese society at any point in time.



Policy principles

Market Driven

- Operation of market forces to the extent possible.
- Government support in places wherever not commercially viable.

Universal Access

- Service for all Bhutanese.
- All dimensions of access; availability, affordability and capacity to use will be addressed.

Affordability

- For entry level services, Government will ensure affordability to all.

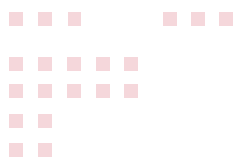
Leadership

- Leadership in Telecom and Broadband usage at all levels of society will be promoted.



Scope and Practical Focus

- A high level plan
- Policy provides an over-arching framework for programs in the 11th FYP and beyond.
- Policy complemented by a “Strategic Action Plan” (Section E of the policy document)



Telecommunications





Objectives

Achieve full
potential of
telecommunications
sector

- Ensure development in line with International Trends
- Ensure telecom provides a strong foundation for ICT Enabled Knowledge-based society
- Promote innovation
- Create a conducive environment (infrastructure, regulation, private sector participation, government support)
- Promote green Telecommunications



Policy Element- Universal Access

- Basic communication services
 - voice
 - entry level Broadband
- Access to these services to the village level
- Recourse to universal service fund



Policy element- Universal Service Fund (USF)

- Comprises license fees and a % percentage of AGR collected from operators
- Effective in rolling out services to the villages
- Continue with the system



Policy Element- Green Telecom

- Sector development in line with RGoB's environment policy
- Infrastructure sharing will be ensured
- Promotion of use of clean energy and energy efficient devices



Policy Element- Licensing Framework

- Adopt converged and Technology neutral licensing framework to promote:
 - Innovation
 - Competition
 - Diversity



Policy Element- Regulatory Framework

- Regulations will promote:
 - Innovation
 - Competition
 - Customer service and welfare
 - Fair play
 - Environmental responsibility



Policy Element- Competition Framework

- Establish Regulations to promote:
 - Promote private investments
 - Public private partnerships
 - Curb anti competitive behavior
 - Promote vibrant and competitive telecom market



Policy Element- Mobile Development

- End of 2013- Mobile exclusivity granted to 2nd Incumbent (Tashi Cell) expired
- Based on sound proposal an additional mobile operator may be considered
- Priorities will be given to 100% local bidders
- FDI will be allowed as a last resort



Policy Elements- (+,#)

+Quality of Service

- Operators required to provide QoS guarantee to consumers

#Consumer Protection

- Service providers to provide Service Level Agreements
- Consumer protection under prevailing laws
- Govt. to create awareness and issue regulations to the effect



Policy Element- Security and Privacy

- Operators
 - ensure confidentiality, integrity and availability (CIA) of Telecommunications network and Information flow
 - protect privacy of consumers
- Government
 - will require Telecom operators to adhere to the highest standards of safety and security



Policy Element- Spectrum Management

- Prudent and optimal utilization of spectrum to spread ICT services
- Review utilization on regular basis and ensure its efficiency
- Issue appropriate policy directives to BICMA



Policy Element- National Fiber Network

- National fiber backbone network established by the government
- Create level playing field among operators
- Framework for leasing fibers (details in section D)



Framework for Leasing Dark Fibers

- Only a pair of dark fibers to an operator
- Condition to take services to all 20 dzongkhags
- Cable operators and Multiple-System Operator (MSO) not allowed to lease
- Lease rate zero at present
- RGoB to revise the dark fiber lease rate when the need is felt



Policy Element- Right of Way and Infrastructure Sharing

- Government to make available infrastructure belonging to it and its corporations for establishing telecommunications infrastructure wherever feasible
- Facilitate faster Rights of Way



Policy elements- Disaster Communications

- Leverage on Telecom and ICT Infrastructure to prevent, mitigate and manage disaster
- Establish a robust disaster communication system in collaboration with relevant partners
- Operators will be mandated to follow international standards and best practices for contingency planning



Policy elements- Emerging Trends

- Ensure that the sector keeps abreast of Global development and trends



Policy elements- (+,#)

+Institutional Setup

- Telecom Division under DITT established which will be upgraded to a Department in due course

#Skills and Capacity Development

- Collaborate with academic institutions to bridge the gap between academic curriculum and what is required at field



Broadband





Definition of Broadband

- Entry level broadband defined as a minimum download speed of 512 kilobits per second (kbps) for Bhutan
- Amend the definition from time to time
- Arrive at ITU Broadband Commission's definition of broadband



Objectives

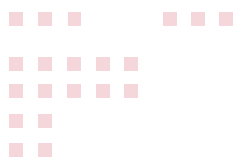
Broadband for sustainable development

- Broadband enhanced health services
- Sustainable employment opportunities
- Promote tourism and business investments
- Conserve tradition and culture
- Enhance public private sector efficiency
- Broadband enhanced education
- Increased innovation and opportunity
- Development and access of local content
- Enhance global integration and international relations



Short to Medium Term Goals

- Have in place a competitive structure for provisioning Broadband in Bhutan
- Ensure affordability for entry level Broadband
- Achieve 80% of Broadband availability for both rural and urban population in 11th FYP
- Achieve critical mass of broadband uptake in the 11th FYP
- Support all academic & health institutions to have Broadband access
- Lead Broadband evolution by delivering services online
- Develop range of lead applications



Implementation Responsibilities





MOIC

- Ensure implementation of the policy
- carry out overall implementation, monitoring and review of the Policy and related Plan
- Prepare annual reports
- Submit report to the e-Gov Executive committee



Telecommunications and Broadband Committee

- Responsibility
 - Steer the implementation of this policy
 - Oversee development of the sector
- Members
 - e-Gov Executive committee
 - Telecom operators, ISPs and BICMA



Thank You

Q&A

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