

Encouraging value-added services & mobile apps: What policy & regulation should avoid

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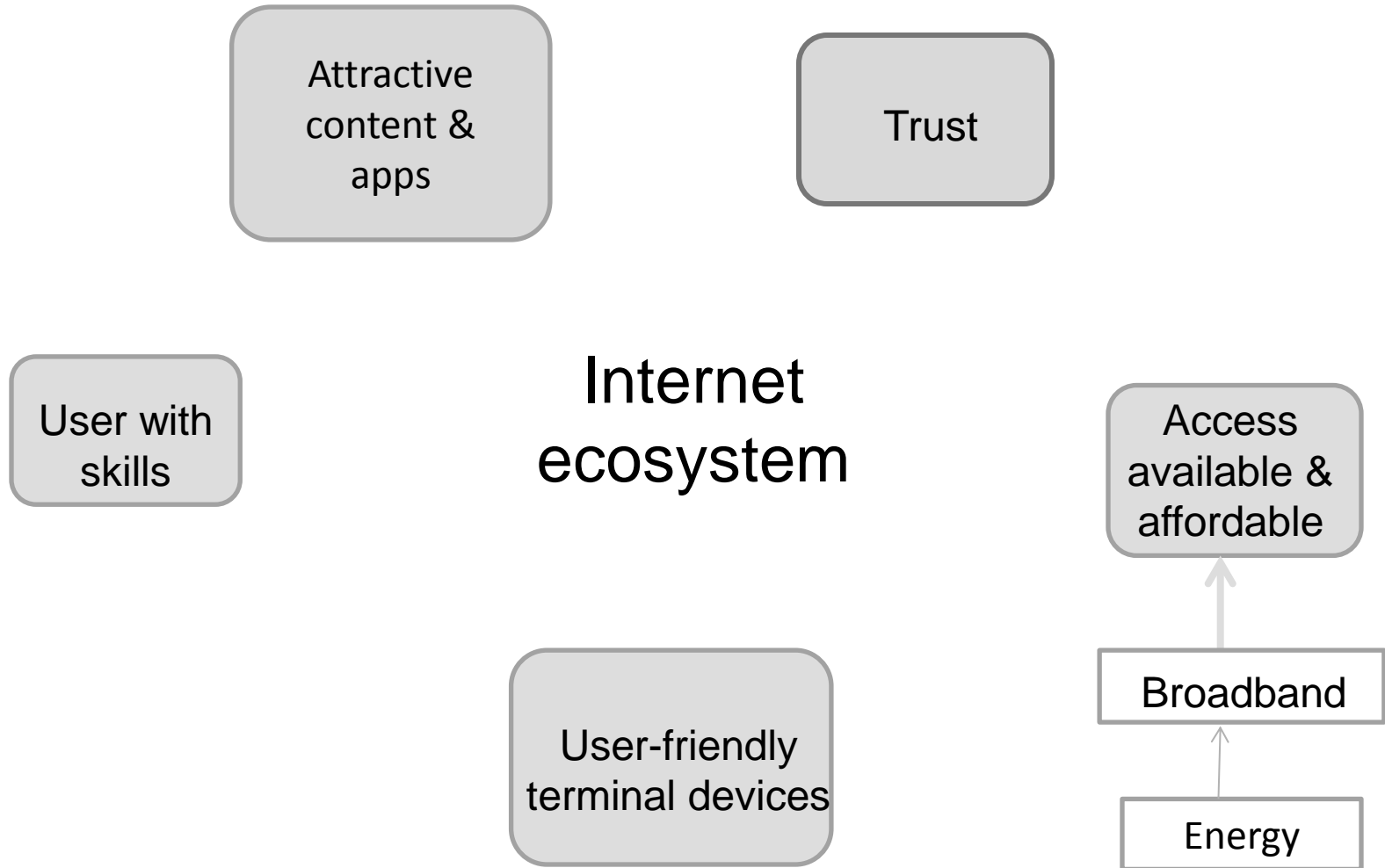
13th APT Policy and Regulatory Forum, 9 October 2013



The work was carried out with the aid of a grant from the International Development Research Centre, Ottawa, Canada (www.idrc.ca) and UKaid from the Department for International Development, UK (www.dfid.uk).

**WHY ENCOURAGE VAS & MOBILE
APPS?**

Internet is an ecosystem: All elements needed



“Do not use Internet, but on Facebook all the time”

- LIRNEasia qualitative research in Java
 - Surprised to hear interviewees who had said they did not use Internet go on to talk about Facebook
- Research ICT Africa quantitative research (12 countries)
 - Found significant numbers of people talking about Mixit and Facebook after having answered Internet questions in the negative

DEFINITIONAL PROBLEMS: VAS, APPS (AND MORE-THAN-VOICE)

VAS

- In the 1990s, even mobile was considered VAS by some (e.g., 1998 National Telecom Policy of Bangladesh)
- Sliding definition: Whatever is non-core
- But then it bumps up against mobile applications

Mobile apps

- Definition: A software application designed to run on smartphones, tablet computers and other mobile devices (e.g., Whatsapp, Angry Birds)
 - Usually available through application distribution platforms, which are typically operated by the owner of the mobile operating system
 - Some apps are free, while others must be purchased. Usually, they are downloaded from the platform to a target device. For apps with a price, generally a percentage, 20-30%, goes to the distributor; rest goes to producer of the app

Mobile apps & VAS: no clear line

- SMS is a VAS; Viber is an app
 - But both do the same thing
- Some apps are stored on mobile network servers
 - So distinguishing VAS from apps based on where the software is located may not work
- VAS involves operator (on-deck); apps (off-deck) do not?
- Unlike in developed economies where it may be assumed that customers have credit/debit cards for e payment, greater reliance on mobile operators in emerging Asia-Pacific for payment mechanisms

Mobile apps & VAS: no clear line

- Facebook has developed a downloadable app for feature phones that will mimic the smartphone experience; software lives on Facebook server
 - “Facebook has struck promotional deals with phone makers like Nokia, which in May announced a \$99 feature phone called the Asha 501 that includes free Facebook access for customers of certain carriers, including Bharti Airtel, which serves India and much of Africa. The social network gets legions of new users from such deals, and the carriers and phone manufacturers hope that once customers get a taste of the Internet through Facebook, they will be willing to pay for more data access and better phones. ‘It drives people to use data,’ Mr. Makavy said.”

[http://www.nytimes.com/2013/07/22/technology/for-developing-world-a-lightweight-facebook.html?pagewanted=1&r=0&nl=todaysheadlines&emc=edit th 20130722](http://www.nytimes.com/2013/07/22/technology/for-developing-world-a-lightweight-facebook.html?pagewanted=1&r=0&nl=todaysheadlines&emc=edit_th_20130722)

**WHO SHOULD SUPPLY VAS AND
APPS?**

Assessing demand is a challenge

- Many services/apps must be offered; only a few succeed
 - Story of Angry Birds
 - 52nd game developed by Rovio
 - If it did not catch, company would have collapsed
- Is centralized supply the best solution?
 - Mobile operators can make the necessary investments, but is their culture the most conducive to innovation?
 - Is it not better to share the risks (taking a percentage of earnings) with independent app developers?

What works and what are the barriers?

- What works?
 - Innovation that occurs mostly outside large organizations
- Barriers to success, in addition to good ideas
 - Capital (but not on the scale required for infrastructure)
 - Business sense
 - Dependence on key external actors

What can a regulator do?

- Issues of ideas, access to capital and business plans outside regulators' area of competence
- Undue exercise of market power by telecom operators is only area that a regulator may have authority/competence
 - But innovation is a delicate process; crude interventions may cause more harm than good
 - *Primum non nocere* (First, do no harm) is applicable to regulators and policy makers as well

REGULATORY OPTIONS

Basis of regulatory action

- Need to differentiate between
 - Type I (also know as “off-deck”): Classic OTT applications such as Skype and Viber that do not require the participation of network operators
 - And which can be blocked only by highly intrusive means that violate the principle of net neutrality
 - Type II (also known as “on-deck”): VAS and apps that require participation of operators
 - The software is located on the network, not in customer device
 - Payment mechanism is provided by the operator
- In Type I, question is whether regulation will permit intrusion
- In Type II, the question is whether there is undue exercise of market power

Type I: OTT

- Non-discrimination is a general principle of regulation
- Not in operator's long-term interest to stifle the services that attract customers to broadband
- Can a telecom operator conduct Deep Packet Inspections or otherwise discriminate between different kinds of traffic or services?
 - E.g., Saudi Arabia's recent moves to block Viber
 - E.g., All four mobile operators in the Netherlands recently found to have engaged in undue discrimination
- Workable approach to net neutrality needed; cannot be absolutist since traffic has to be managed in conditions of high network utilization

Type I: OTT v operators

- WCIT discussions brought up issue of OTTs contributing to revenue streams of operators
 - Proposals for international-treaty level commitments on sending-party-network-pays principle extended to data traffic did not, correctly, make it into final text
 - Could have led to balkanization of the Internet and exclusion of low-income populations from attractive content
- Two-sided markets are highly problematic: Simplest solution is for operators to collect revenues from data use of their customers
 - As free or for-fee OTT applications grow, data use will grow, leading to increased revenues to operators
 - Suggests that volume-based pricing that is becoming the norm in our countries should not be discouraged

Recommendations for Type I issues

- Government's objectives and long-term interests of operators are served by more people using the Internet
- Research shows that attractive content and applications drive demand
- Experience shows that decentralized innovation is what will yield attractive content and applications
- While some traffic shaping activities are unavoidable, regulators should actively discourage intrusive measures by operators intended to safeguard existing revenue streams and stifle innovation
- Regulators should discourage operators from blocking OTTs as part of their revenue negotiations
 - It is in interest of OTTs to ensure good performance; they are bringing content closer to customers and investing in international backhaul

Type II: VAS and apps that involve operators

- General principle: an entity that has market power in one part of value chain should not be allowed to extend that power to lessen competition in other parts of the value chain (e.g., principle underlying regulatory treatment of essential facilities)
 - However, an operator must be able to protect itself from ill-effects of actions of others
 - In addition, incentives to invest in services and apps should also be considered

Insights from ongoing LIRNEasia Research

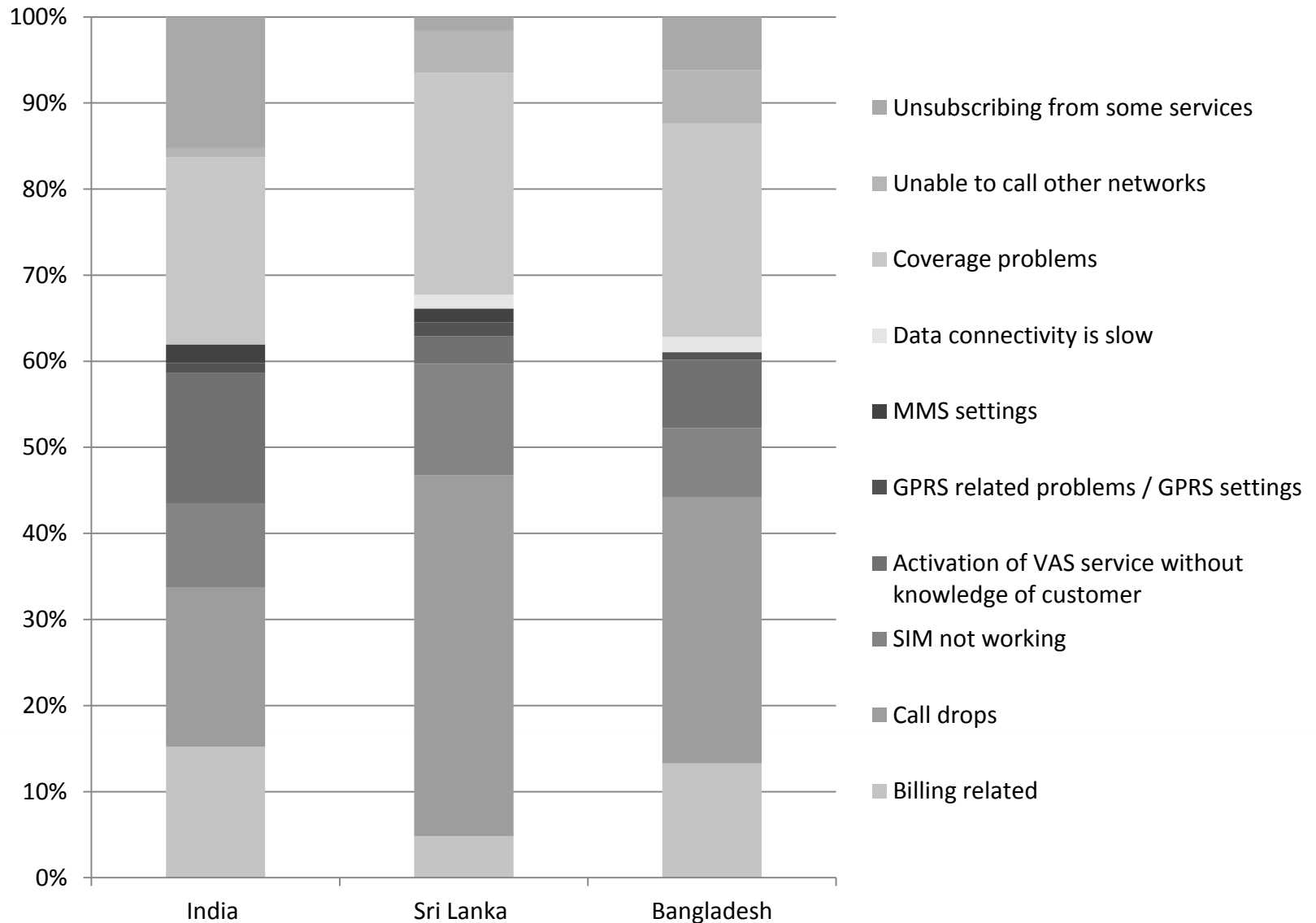
2012-13 studies in India, Sri Lanka and Bangladesh

- Supply-side research: Interviewed mobile operators (from Chief Customer Care Officer to call centre agents) to understand current Customer Relationship Management processes
- Demand-side research: Surveyed urban Bottom of the Pyramid (BOP) micro-entrepreneurs (MEs)
 - Objective: To understand current state of use, problems and experiences of urban BOP MEs
 - BOP defined as Socio-Economic Classification (SEC) groups D and E (some deviation in Sri Lanka and Bangladesh, due to paucity of qualifying MEs)
 - ME defined as those employing 0-9 employees.
 - Urban defined the same way as National Statistics Office of each country
 - Sample size = 3000: India 1200, Sri Lanka 900 and Bangladesh 900

Supply Side: VAS activation/ deactivation is one of the most common problems in all three countries

	IN	LK	BD
Common complaints	<ul style="list-style-type: none"> -VAS activation/ deactivation - Billing disputes -Fraudulent Fair Use Policy: for example keeping broadband meters “deliberately” faulty 	<ul style="list-style-type: none"> -VAS activation/ deactivation -Recharge card pin erased -Non-receipt of bills -Payments not updated in system 	<ul style="list-style-type: none"> -VAS activation/ deactivation -Billing disputes (many due to not understanding dynamic pricing) -EDGE/GPRS speeds too low

Demand Side: VAS activation is a common issue in India... but overall coverage and call drops are the bigger concerns



TRAI has issued direction to reduce VAS related consumer complaints

- Service provider to obtain explicit consumer consent within 24 hrs of activation of VAS service and shall only charge after receiving consent
- Upon activation of VAS service, the de-activation number, the validity of the VAS service and charges for renewal to be explicitly communicated
- Service provider to inform the customer at least 3 days prior to renewal of service through SMS, along with charges and toll-free number for unsubscribing
- Monthly report on activations, deactivations and complaints received and their redress to be submitted to TRAI
- Common de-activation procedure (across all Service Providers) using toll Free Common Short Code 155223.

Source: <http://www.trai.gov.in/WriteReadData/Direction/Document/Dire10-7-13.pdf>

TRAI recommendations for increasing awareness and use of VAS

- Use of the National e Gov Program campaign. This program includes
 - Stalls at events and
 - Advertisement
 - CSC award
 - activities
- ... But then recommends that Application Service Providers should be covered under Licensing through Authorisation, against the advice of most stakeholder groups as per Recommendation document.
- contact and van based communication services in Indian regional encouraged through suitable incentives.

Source

<http://www.trai.gov.in/WriteReadData/Recommendation/Documents/AS140512.pdf>

Legacy problems

- Many VAS were included in operator licenses issued in 1990s
- Some countries had issued separate VAS licenses/authorizations
- In the face of increased VAS activity, some countries sought to structurally separate VAS (and apps) from network operation
 - But this would require taking away what was permitted in original licenses → a form of expropriation

Why this structural solution is harmful

- Intention may be to allow local VAS players and app developers to gain foothold
 - But in Type II scenarios where the active cooperation of network operators is needed, this may be counter-productive
- Unilateral , ex post changes to licenses are bad; when that amounts to forced sale of existing business lines it amounts to expropriation
 - Definitely not recommended
- Solution appears to be disproportionate to problem

Should the regulator stay out?

- Not completely, because
 - Consumer complaints generated at the interface of VAS activations/deactivations affect network operators and draw on their resources → some of these complaints also come to regulator
 - Indicative evidence from differing rates of non-voice revenues in different countries that there are barriers to participation by content and app providers in some countries

What is the middle path?

- No structural solution
- Engage in education of network operators and content/app providers about the win-win aspects of cooperation
- It may be necessary to set boundaries for revenue split
 - Should this intervention take the form of moral suasion by the regulator or explicit regulatory direction?
 - Perhaps regulatory direction as a last resort

Should VAS and app providers be licensed?

- Issue has come up in India and Bangladesh, at least
 - TRAI has stated that they cannot assist those who are not licensed/authorized
 - BTRC sought to license all VAS and app providers
- In our response to BTRC last year, we said:
 - “No need for VAS licensing (entire document)
 - There is no rationale for VAS licensing that would be supported by present knowledge on ICT policy and regulation. Licenses are rarely issued at this granular level. At most, they would be “class licenses” that would impose certain minimal obligations and enable the regulator to contact the VAS provider if necessary.”

Should VAS and app providers be licensed?

- “The enforcement of the prohibition of unlicensed apps on smartphones will be exceedingly difficult. The unintended consequence will be discouragement of local entrepreneurship and the widespread use of apps obtained from foreign sources.”
- “Provision of mobile apps on feature phones requires active participation by ANS operators, since the app would have to “live” on the network given the limitations of the handset. In particular, “discovery” (ensuring that the potential customers become aware of VAS on offer) and payment for services (in the context of countries like Bangladesh where credit-card penetration is low) operators will play a critical role. The exclusion of operators from the provision of VAS would be inimical to the development of VAS for feature phones, used predominantly by the poor.”

Should VAS and app providers be licensed?

- “The draft appears to be based on the faulty premise that it is necessary to enforce vertical disintegration of value added services and the provision of access network services. There is no international precedent for this. While it may be necessary to encourage fair treatment of VAS providers, it is unwise and impractical to (a) prevent ANS operators from offering VAS; and (b) expropriating the VAS services they have already developed legally and in full expectation of future revenues and synergistic support to other service offerings.”
- “The LIRNEasia study of CellBazaar shows that (a) it is possible for an independent VAS producer to become successful in Bangladesh without government licensing and intervention; and (b) that it may make sense for all concerned including the VAS entrepreneur to sell the service to the ANS at a certain point. The proposed rules seek to solve a non-existent problem and create a new one by depriving developers of access to capital and ready buyers for their businesses.”

- For more information
 - www.lirneasia.net: internal search; search terms “VAS” “app”
 - <http://lirneasia.net/projects/2012-2014-research-program/improving-service-delivery-for-e-inclusion/>
 - BTRC submission: <http://lirneasia.net/2012/05/rapid-response-to-vas-guidelines-proposed-by-bangladesh/>
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