

The role of QoS in the Next Generation Mobile Network

Revenues from Investments in Broadband

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The Problem

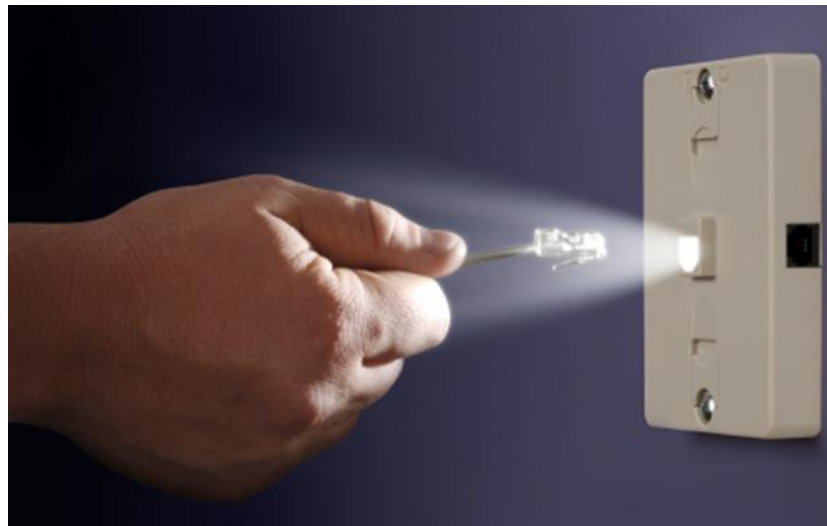
Network Operators are facing a big dilemma today, as they start to question whether any additional revenues will be coming from any new investments made in Broadband



**Why is
this happening?**



Lessons learned from Fixed Broadband



Lessons learned from Fixed Broadband

Experience has shown that is necessary to get away from charges per bit

- Take up of a service is highly price elastic.
- Consumers are unable to judge their data consumption
- And so Flat Rate tariffs were deployed everywhere...



... leading to the Internet “free” service model and the unwillingness to pay for services (that can be found free somewhere else).

Lessons learned from Fixed Broadband

After some time with flat rate packages, we found out: you can't live without nor with them

- Without, they (the users) don't use it
- With, they may abuse it



Time Warner Cable (Jan 2008) : *" around 5% of the customer base, can account for up to 50% of network capacity"*

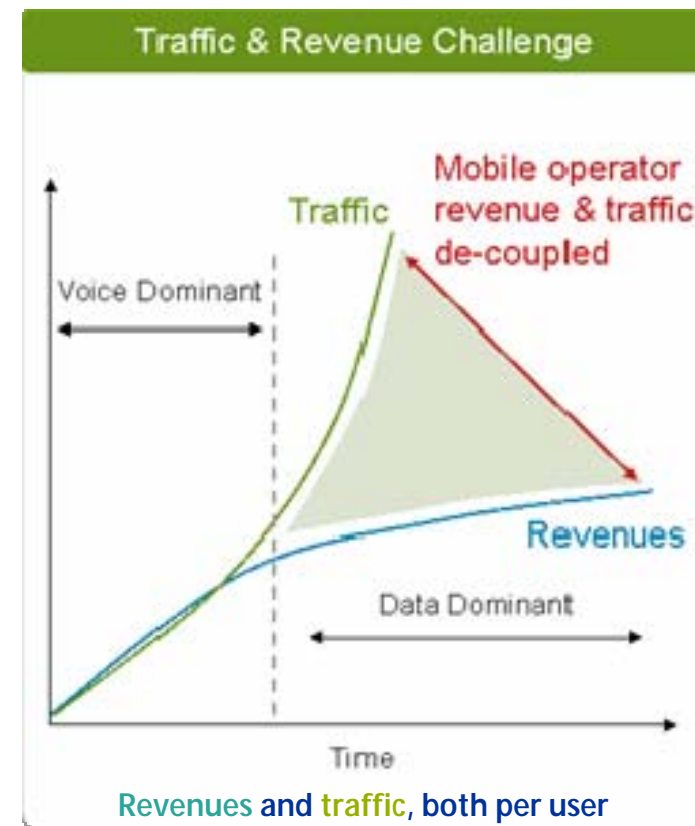
Same "magical" numbers appeared time ago (2004) in very high penetration markets like South Korea.

Lessons learned from Fixed Broadband

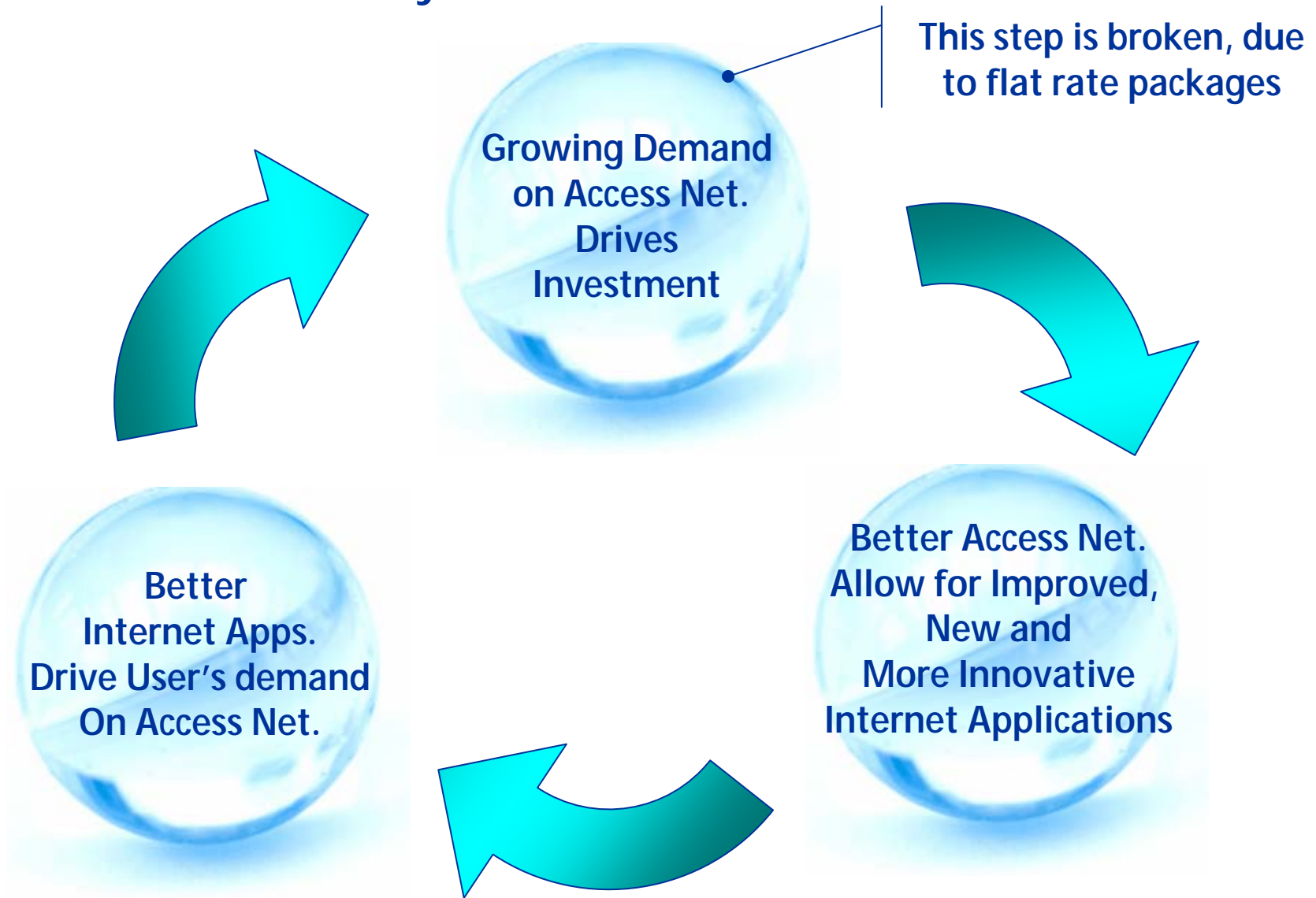
... and this is happening as well in mobile broadband

... and when subscription growth rate decreases ...

Result is: There is a disconnection between revenue growth (stagnating) and traffic growth (skyrocketing)



The investment cycle is broken



The investment cycle is broken

Because there is a disconnection between revenue and usage growths...

- Time Warner Cable announces in June 2008 a consumption limit in their flat rate packages: 40 Gigs per month
- Comcast and Bendcable announce similar initiatives
- Korea Telecom already considering this in 2005

... being this type of approach very common in Mobile Broadband offers, due to the scarce nature of spectrum

**How
can we move
forward ?**



What is the industry doing now?

Focus on new technologies development revolves, mainly, about additional broadband.

Wider and better bit pipes.

Problem still remains.



The problem can be addressed from three different fronts



- Rebuild the relation with the end user, far from flat rate packages and with a more Service Oriented Offer
- New Business Models, involving all players
- Networks ready to implement QoS and to provide Network Capabilities, other than bandwidth

Rebuild the relation with the end user

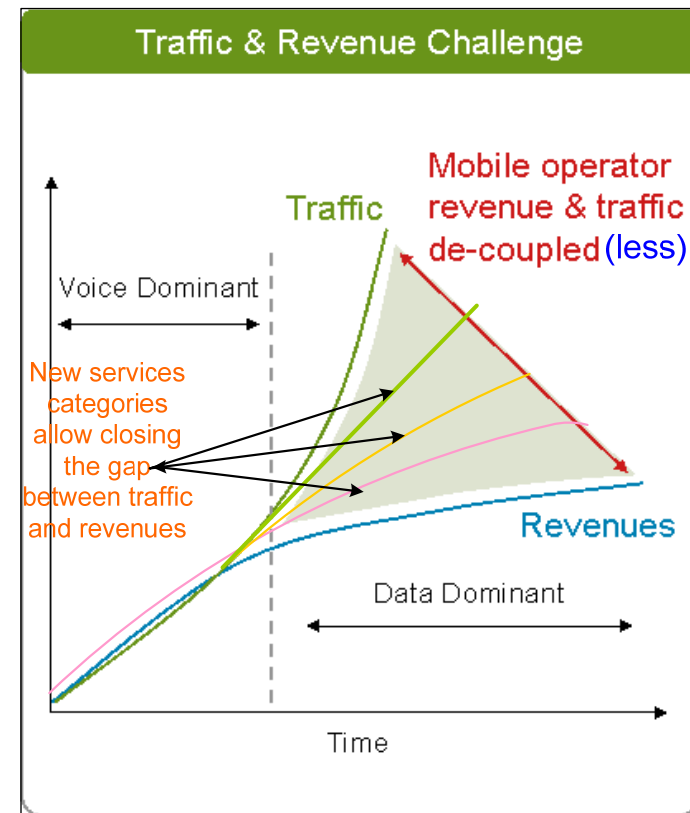


- Offer Services, not pipes....
- ... and be ready to pack the QoS and capabilities needed, bundled in an understandable definition of a service.
 - Sell Video Conference, and let the service bring its own bandwidth and QoS with it.
 - Sell faster downloads (from selected third parties), and let additional bandwidth be assigned to it, instantly and dynamically.
 - Sell banking connectivity with QoS guaranteed, and let the personal bank transaction not be affected by someone else watching a video in youtube.
 - Sell dedicated bandwidth to work from home, so that if your son switches on the HD cable TV set or starts downloading the last Microsoft Service Pack, your work connection is not slowed.

Rebuild the relation with the end user

- Let the user know the service he is using, the value it gives, and why he is paying for it, far from pure traffic models.

- Goal being, re-link again revenues and resource usage...
- ... providing that there is value for everyone in the proposal.



New Business Models

- There is a need to involve all the players in the model, setting benefits for them all, and enriching their cross relations.



- Offer 3rd Parties better and richer network capacities, in an easy way and with universally accepted interfaces: better QoS, better speeds, reserved bandwidths, and the “traditional” (charging, location, security, etc.).
- Thanks to this, and to more flexible and dynamic business models, open for 3rd Parties the possibility for new revenues from end users, due to better services, or to subsidize them, if other revenue sources are to be in place (advertising, etc.)
- End user being able subscribe to better services, in better conditions and trusted relationships, independently on the operator that the End User is subscribed to.

Networks ready to implement QoS



Leaving behind the bit pipe model requires **full control of the IP Network** including QoS.

- **Complete and dynamic control** over the different Levels of **QoS**, and dynamic SLA management, is a must.
- Backend / ancillary systems (OSS / BSS) should be able to cope for dynamic / real time changes in these parameters
- Changes in demanded QoS could be requested at any point of the service delivery: the end user, network operator or 3rd party app provider.

Finally: a change in paradigm

Selling Services with QoS guaranteed

All players involved in the Model

Healthy Investment cycle

Thanks !

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