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Regulation challenges for competition managed services vs OTT services

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Context

The most recent source of dispute is the condition of competition between the managed services from access provider with the Over-The-Top services from service providers.

Managed services are services available only to the customers of the access operator and generally provided with use of QoS and additional features such multicast. Over The Top services are provided to any customers accessing the WWW (taking into account geographically limitations due to content right or limited commercial objectives) using the Best Effort Unicast service of the WWW. Managed services can be duplicated by OTT services for multiscreen broadcast distribution or for remote access to the customers but it does not changed the aim of the service.

Access operators invests in access bandwidth to provide managed services and the related costs are included in the services' prices. OTT operators does not invest in access bandwidth and use the growing bandwidth invested by access operators to provide more Internet bandwidth to his customers.

Up to now, access operators can offer to their customers more advanced services by using Quality of Service and best bandwidth management by use of multicast functionality. However they must also invest – or to pay usage fee in case of unbundling or bitstream – to provide these improvements.

The OTT operator must invest to improve connectivity with access operators – by mean of global transit capacity or services from CDN (Content Delivery Networks) – but use access' capacities at no costs (however the bandwidth is paid by end-user). This capacity can be huge: an access operator providing 200 channels of IPTV with a topology of 600 rings use a bandwidth for 12,000 video flows, at TV peak hour, 50% of customers consume linear TV services, thus with the same bandwidth, OTT TV providers can serve 24,000 customers vs unlimited number for access operator.

European framework is designed to increase competition on access level, thus the regulation does not impose to SMP operators to give access to service providers at their own customers.

Disputes

The operators have made their choice between two business models: integrated services with investment to access physically the customer (with the well-known assumption that bandwidth demand will increase regularly) or service only with the need to pass through an third party infrastructure. But today they do not accept that these different business justify differences in the technical aspects and in investments.

The access providers accuse the service providers to be free riders of their huge investments in the infrastructure and to use fiscal optimization to increase margins. Inverse the service providers accuse the access operators to provide to themselves functionalities that they do not provide to competitor arguing that is a non-respect of net neutrality. Additional, in case of volume invoice, they point unfair competition due to the fact that OTT are include in the invoiced volume and managed services not.

Several elements must be analyzed.

The first one is to determine if OTT is free rider. In fact the usage of access and international network is included in broadband subscription and thus paid by end-user. The problem is that the average use of bandwidth is increasing and additional investment that can be difficult to pass it in the subscriptions' fees: operators have made the choice of flat rates with – in most of the cases – unlimited usage; introducing the idea that bandwidth is free of charge. In place to introduce (or re-introduce) data cap, they prefer indirect charging end-users by the intermediary of the service providers to avoid customers' angry. However it is not a so easy solution that somebody can believe, the wholesale invoicing system should be not so simple.

Some access operators point the existing paid peering as the best practice to deal with service providers. However peering is not an access to the infrastructure but the sharing of a direct interconnection. Peering is based on the fact that both parties have interest to increase interconnection performances. If one of the partner is smaller, the biggest one does not have a lot of benefit because the interconnection does not increase end-user welfare because to less data come from this partner. Such the benefits are unbalanced, it is normal that the cost sharing is also unbalanced and that the small one pays the biggest one. It is inverse that the proposal for OTT: the bigger operators are paid to send contents at high performance and not to give access to his customers to content providers.

The second one is to determine if access operator give to themselves an anti-competitive advantage for the managed by using advanced feature not available for net services. The base of this argument is that managed services are internet services to be subject to net neutrality. This view is a shortcut: these services are the modern asset of legacy services PSTN/ISDN and broadcast, are not accessible from outside the network of their provider and do not use the web. The advantages of NGN/NGA is to use a single infrastructure and we cannot use this common infrastructure to put all services in a common category.

The third one is a variant of the accusation of unfair competition due to the lack of wholesale offer to use same feature that managed service. Such stated, regulated offers do not apply to service providers, the question is to know if access operators refuse to negotiate and to provide such wholesale service at fair price.

How to improve competition conditions

As first approach, we can say that each provider have choose a business model with full knowledge of the facts and now wish to profit of the model of the other one without to try to enter in it and without their inconvenient. However, it is interesting to evaluate if it is possible and fair to impose some obligation to equalize competition's conditions.

An important point to increase competition is to permit negotiation between access providers and services providers to use QoS. The net neutrality must not forbid the possibility to use QoS but only impose nondiscrimination: if a service provider as conclude such agreements, his competitors must also have access to similar agreement. However the question of nondiscrimination between managed services and OTT stay open: nondiscrimination is based on similar status, and the two types of services are not really in the same situation (e.g. access regulation is only defined to provide integrated access and services, nor to provide access to the retail customers of the SMP operator such is made by OTT services).

There are two main competition field: video and voice services.

Video services is a major point of dispute due to the bandwidth consumption, and thus the need of investment to transport the services -

- Video services use huge bandwidth, if we take a virtual example of an access operator operating 100 backhaul rings and un offer of 200 channels, he uses in his networks bandwidth for 20 000 channels; we can take that at prime time, 50% of customers of paid TV look TV, thus with the same bandwidth OTT provider can serve only 40 000 customers; high success of OTT providers present the risk to congest the network, decreasing quality and customer experience and finally reducing this success.

- There are two divergent trends: in country with rates partially in function of volume, the trend is to increase the unlimited offer, inverse in flat rates countries, there is thinking's to go to volume rates to charge the higher users for the upgrade investments; the volume rate are a barrier for OTT video services because the user can quickly enter in the volume based rate part of his subscription and TV service became too expensive.

For voice services, bandwidth consumption is not an item. Mobile networks are not happy by the loss of revenues on calls and on SMS (e.g. IP Messaging). On both mobile and fix networks, OTT voice does not follow some regulatory and legal obligations giving a costs' advantage:

- When providers is based in foreign country, they do not fulfill the administrative obligations of the countries where they sell their products
- OTT providers receive the full termination rate despite the fact they do not pay bandwidth to the customer, this bandwidth is paid by the customer itself with its internet subscription
- According to OVUM, a consultancy firm, telecoms are expected to lose $479 billion of revenue to VoIP OTT operators

SMS services must now compete with OTT messaging services, OVUM evaluates that by 2016, operators will have lost $54 billion in SMS revenues due to the growing popularity of online messaging

It exist also mail, messaging, data OTT services but without disputes because they have no real time requirements, there is no transfer of revenues and no risk of capacity congestion.

Finally the main point for more competition is to reform the author rights that are today always geographically oriented. It is the correct way for FTA but is not adapted for pay TV. In this case, the contracts depend of the number of customers, there is no reason to impose in supplement that these subscribers must be in a single country and to claim more money if they are spread in several countries.

<u>Conclusions</u>

It is strange that players, pushing for less regulation, demand direct or indirect regulation by mean of data termination, extended net neutrality concept or access obligation. These ways are possible but not the best to proceed.

Such each player try to avoid any end customers prices increase, there is a risk to do not have any agreement for the cost sharing. Some players are active in different countries and different national approach can become barriers to the European single market. It must dealt at European level.

Regulator in Vietnam are moving closer towards banning OTT services. In 2012, Korean's regulator allowed data throttling by access operators to control proliferation of OTT services. This appears to be a short-term strategy and will most likely directly impact on revenue-generation for the access operators. Such controls over OTT services are an attempt by some access operators to stall the inevitable effects of OTT services.

Access operators have tools to compete and/or collaborate with OTT operators:

- For competition, bundles offers from access competitors are a strong advantage. Smaller players – not able to provide such offers (content rights, ….) have interest to conclude agreements with OTT players to provide to their customers a full range of services and start a virtuous circle in the market.
- For cooperation, wholesale offers to use QoS and multicast services, as well distribution of Apps and integration of OTT services in bundles, is a best way to achieve a fair revenue sharing that passive terminating fees.

At technical level, regulation must be careful to avoid that too restrictive rules should prevent new innovative services. It must also help the players to avoid web access congestion by providing the more adequate technical features to permit end user to receive higher well fare.

However a general obligation to answer to any reasonable demand should be stated and the role to control this obligation and to act as arbitrator must be recognize to NRA or competition courts.

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