

Communications  
Regulatory Agency



***“ OTT SERVICES - THE OPEN INTERNET AS  
CHALLENGE TO CLASSICAL TELECOMMUNICATION SERVICES”***

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The Conference  
*„Expanding Broadband Access and  
Acceptance”*

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## *The Story of Pandora's Box*

- ▶ According to Greece mythology, Pandora was the first created woman. Zeus gave Pandora to Epimetheus as his bride. As a present, Zeus gave them a jar (box) with warning inscription on it telling that the box should never be opened.
- ▶ Once, being alone, Pandora opened the box. The box contained all the evils of this world which escaped the box and spread throughout it all.

### **An Open Internet / Net Neutrality as Pandora's Box**

Declaring the Internet as „a sea which is free for all merchant ships” the telecommunication Pandora's box was opened.

Networks become "neutral" (Net Neutrality) and the network owner has no impact on services provided through its network.

The consequence of this situation is that those operators who invested in network infrastructure has no more possibility to use its full economic capacity and they are losing interest for future investments.

## What are telecom "evils" which spread from Pandora's telecom box?

- ▶ „Free Internet” and Over The Top (OTT) content seems to be the best candidate for telecom „evils”.
- ▶ To classical telecom operators OTT services looks like a serious danger for their business.
- ▶ In modern urban dictionary, the OTT means something what is excessive, outrageously...
- ▶ The OTT services are not restricted with ownership of the network and they can penetrate any opened IP oriented network. As such, they can overrun traditional „one to one” (user-service provider) model.
- ▶ From users' point of view, that evils seems to be a present from God to them...

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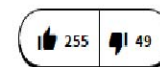


### OTT

Acronym: Over The Top. To do more than or go further than is necessary, esp. due to over-enthusiasm.

*I needed some new clothes, but I went a bit OTT and spent nearly a **grand**.*

by **Steve March** 08, 2005



<http://www.urbandictionary.com/define.php?term=OTT>



## *Traditional telecom market model vs. OTT modified market model*

- ▶ In traditional telecom business model, user is supplied by services provided by network owner. The service provider is also the owner of the network to which the user is connected. Service provider and customer „knows each other”. *This is happy marriage model ...*
- ▶ In liberalised telecom market, user can be provided with classical telecom services from party which is not owner of the network to which the user is connected, but still that party is in contractual relation with network owner. Service provider and customer still „knows each other”, but network owner „*knows for affera*” and is not happy for it.
- ▶ In OTT modified market, the network owner is even not aware who provides services to his network client. Mostly, the first think what it see is that its revenues are depleted...

*Imagine it is not about telecom operator but about some large supermarket center? Would the owner be happy if everibody can enter its premisses without asking anything and sell what it want?*

# Paradox - OTT is benefit for users!?

"A paradox is a statement that apparently contradicts itself and yet might be true (or wrong at the same time). (<https://en.wikipedia.org/wiki/Paradox>)"

- ▶ If traditional operator was a real person, what would OTT services mean for it? The situation now is like a house which door is widely opened, the owner even do not know who sleeps in his bed. From private property the house transformed into public foundation...
- ▶ If all food is for free, at the end, who would produce all that food? Why would anybody invest his best efforts to produce something what is for free?
- ▶ By definition, business is the activity conducted "for profit" and not „for free”:

"Businesses are prevalent in capitalist economies, where most of them are privately owned and provide goods and services to customers in exchange for other goods, services, or money. Businesses may also be not or state-owned. (<https://en.wikipedia.org/wiki/Business>)"



*So, why build the house if you can get it for free?!*

## AT&T halts fiber build-out until net neutrality rules are sorted

by Devindra Hardawar | @devindra | November 12th 2014 At 12:32pm



AT&T is putting the brakes on its [gigabit fiber internet service](#). CEO Randall Stephenson revealed this morning that the company will halt the rollout of the network, which launched in Austin last year, until it has solid net neutrality rules to follow. "We can't go out and invest that kind of money deploying fiber to 100 cities not knowing under what rules those investments will be governed," he said.

<http://www.engadget.com/2014/11/12/ATT-halt-fiber-network/>

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### Public Access

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## Another example...

"A group of European operators, including Orange, Deutsche Telekom, Telefónica and KPN, have written to the President of the European Council urging lighter touch regulation to help them compete with OTTs."

"To increase investment, operators need to improve their returns. This can be achieved by either increasing profits (by selling more or reducing costs), or reducing their capital employed (reducing fixed assets or reduce working capital).

Competition, especially from Over the Top players such as Skype, What's App and Facebook, have prevented mobile operators from increasing revenues. The industry has therefore been in a process of constant restructuring and cost reduction for the last ten years, and so an improvement in returns is not likely to be achieved through increasing profits. ,,

<http://telecoms.com/426231/operators-call-for-lighter-regulation-to-help-fight-otts/>

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## Operators call for lighter regulation to help fight OTTs



Written by [Scott Bicheno](#) | 17 June 2015 @ 10:52



A group of European operators, including [Orange](#), [Deutsche Telekom](#), [Telefónica](#) and KPN, have written to the President of the European Council urging lighter touch regulation to help them compete with OTTs.



# Reduction of profit ...

## Example:

- ▶ "In a report, titled Mobile and online messaging: SMS, RCS and IM markets 2015-2019, Juniper forecast that overall messaging traffic looks set to double by 2019. OTT offerings will see a threefold increase in traffic, from 31 trillion messages sent in 2014 to 100 trillion by the end of the decade, said analysts.
- ▶ Meanwhile, the messaging market will decline in value by around \$600m, from \$113.5bn in 2014 to \$112.9bn in 2019.
- ▶ A key factor in the value decline of the market will be that each OTT message is set to generate less than 1% of the revenue of a regular SMS or MMS.

(<http://www.computerweekly.com/news/4500249484/OTT-messaging-providers-will-struggle-to-make-money>)"

## OTT messaging providers will struggle to make money



Alex Scroxton  
Networking Editor  
07 Jul 2015 13:00



THIS ARTICLE COVERS

**Mobile software**

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In this Article

Juniper Research report forecasts years of declining revenues for the mobile messaging market, and says that over-the-top providers will need to diversify to survive

Analysts at Juniper Research have predicted that providers of over-the-top (OTT) mobile messaging apps – such as Snapchat, WhatsApp and Japan-based Line – will struggle to monetise their services and will be forced to diversify rapidly in the next four years if they want to survive.

In a report, titled [Mobile and online messaging: SMS, RCS and IM markets 2015-2019](#), Juniper forecast that overall messaging traffic looks set to double by 2019. OTT offerings will see a threefold increase in traffic, from 31 trillion messages sent in 2014 to 100 trillion by the end of the decade, said analysts.

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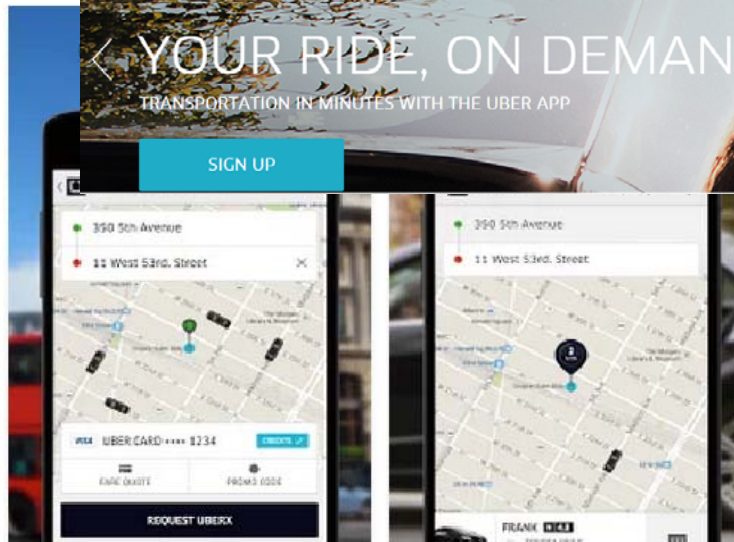
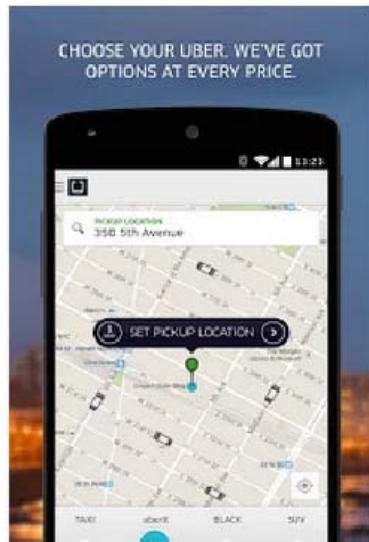
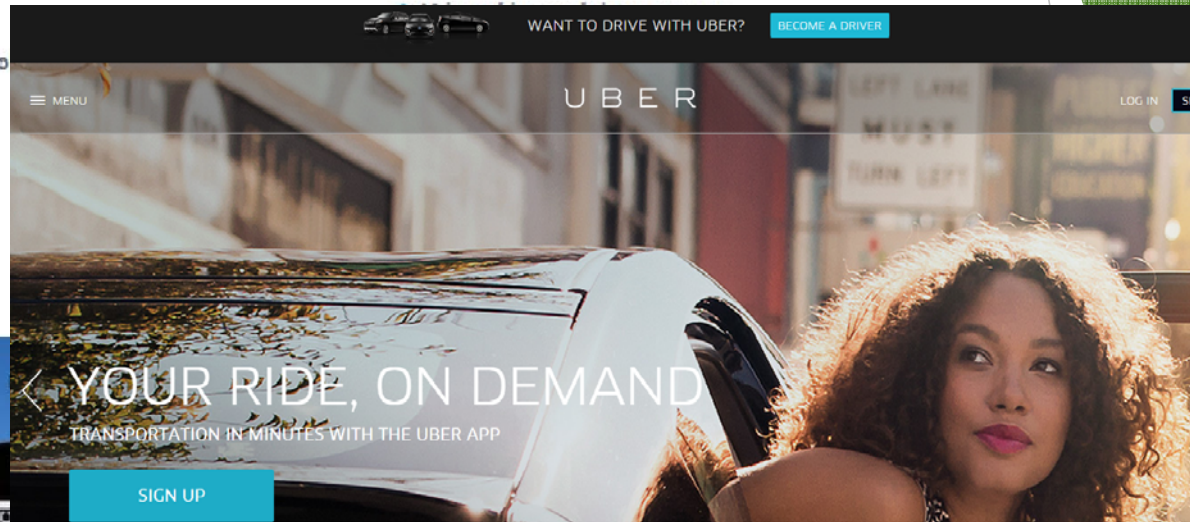


# Is OTT case specific for telecommunications only?

Here is a similar situation, but this time in transportation ...



Uber  
Uber Techno  
PEGI 3



<https://www.uber.com/>

# *OTT vs. traditional telecoms - the same race - the different regulation*

## *THE TRADITIONAL OPERATOR*

The traditional telecom operator has many administrative and technical obligations and restrictions. Some of them are: legal interception, number portability, interoperability of services, USO obligations, consumer protection, full legal liability, quality of service, etc.

In most cases, traditional operator is situated in a country where the services providing. That presence is in form of legal person (company) or its registered branch office. Traditional operator is also a subject of national taxation policy, depending of specific country.

## *THE OTT*

In many cases OTT service provider is foreign company and it is not present in a country where it provides its services with its legal person or branch office. In such cases OTT service provider is not subject of national laws and regulations. The payment for its services mostly goes through internet transactions bypassing domestic taxation system of the country where services have been provided.

Its services are not covered with legal interception, or, it is covered by foreign security laws and regulations. So the citizens using conversation through OTT platforms may be subject of legal interception even if both sides in such conversation are not in that foreign country. OTT services are mostly not interoperable with other services, or with platforms of other OTT provider. Emergency services are not enabled on OTT platforms.

The user which is located in a country where the OTT service provider is principally located is in much better situation than the user who is located in third country. OTT service provider relations with customer is less formal. It is more based on customer wish to get cheap services rather than on some serious awareness of the customer about all aspects of such services.

The fact that customers can easily deflects to another OTT service provider does not mean too much in case of voice or message services. These services are as basic OTT options mostly offered for free, if standard numeration is not used or if calling are not PSTN directed. So basically, user when on wifi in many cases can establish communication for free, or for low fee. In such circumstances user opt to use more than one OTT application because installation of the application is for free.



## Some examples of different position...

### How do I use WhatsApp Calling?

**WhatsApp Calling** lets you call your friends and family using WhatsApp for free, even if they're in another country. Currently, WhatsApp Calling is available on Android, iPhone, Windows Phone and BlackBerry 10.

WhatsApp Calling uses your phone's Internet connection rather than your cellular plan's voice minutes. Data charges may apply.

**Note: You can't access 911 and other emergency service numbers through WhatsApp. You must make alternative communication arrangements to make emergency calls.**

<https://www.whatsapp.com/faq/en/android/28000016>

### Can I call an emergency number from Skype?

Skype Software is not a replacement for your ordinary mobile or fixed line telephone. In particular, apart from in very limited circumstances, the Software does not allow you to make emergency calls to emergency services. You must make alternative communication arrangements to ensure you can make emergency calls if necessary.

For further information, read Skype's [Terms of Use](#).

<https://support.skype.com/en/faq/FA29/can-i-call-an-emergency-number-from-skype>

### LICENSED APPLICATION END USER LICENSE AGREEMENT

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**NO ACCESS TO EMERGENCY SERVICES:** Viber is not a replacement for your ordinary mobile or fixed line telephone and does not allow you to make emergency calls to emergency services. You must make alternative communication arrangements to ensure that you can make emergency calls if needed.

<https://www.viber.com/eula>

## „Telco-OTT” a possible solution?

„Telco-OTT” is defined as network operators response to OTT service providers, where the network operator also comes into provision of services through the open Internet.

This is logical solution, but still this does not resolve the basic problem, the OTT service providers use of basic network infrastructure without paying any fees.

### Too few operators have formulated a coherent telco OTT strategy

28 JANUARY 2013

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With LTE round the corner, mobile operators must take on OTT players.

They have tolerated networks being used to deliver bandwidth hungry IP based applications with little compensation. That model must change.

If telcos want to be more than simply pipe/utility providers, they must move into creating and delivering a suite of attractive and innovative applications.

“MNOs won't succeed if they go head-to-head with OTTs,” Ken Kolderup, chief marketing officer at Kineto Wireless told Mobile Europe.

<http://www.mobileeurope.co.uk/News-Analysis/too-few-operators-have-formulated-a-coherent-telco-ott-strategy>

“Operators face an existential crisis as their geographically-based network business models strain to adapt to a new wave of competition at the service layer - operators with serious ambitions to compete in the service layer should look at telco OTT,” Stephen Sale, principal analyst for voice/messaging, Analysis Mason explained.”

<http://www.mobileeurope.co.uk/News-Analysis/too-few-operators-have-formulated-a-coherent-telco-ott-strategy>



# *Something is wrong with Capitalistic Economy? Free WiFi - a killer of classical telecommunication operators?*

After classical telecom operators are stucked in position where they must stopp their projects, and enter the activities which they are not interested in, we have jet another complication!

A city owned „Free Wi-Fi” networks.

Yes, that networks are not widely spread, but...  
For how long?

The At&T case shown that there is a border where the classical operator must stop. That limits are just about to be passed.

## **Free public Wi-Fi access coming to 25 City facilities**

**February 7, 2014**

News Release

**Ottawa** – Free Wi-Fi access will soon be available to the public at 25 City facilities, thanks to a five-year sponsorship agreement unveiled today between the City of Ottawa and IceNet Wireless, an Ottawa-based wireless internet company and a division of EION Inc. This is the latest sponsorship under the City's Community Champions Program.

The City of Ottawa issued a request for proposals last year seeking a company to provide no-cost Wi-Fi service while generating revenue for the City. The winning proposal by IceNet Wireless met these criteria and included a guaranteed \$315,000 in revenue over five years for the City and bilingual support for Wi-Fi users.

“Ottawa residents have been calling for Wi-Fi access in City buildings and today we are able to answer that call,” said Mayor Jim Watson. “This Community Champions partnership gives residents a service they need, at no cost to the City, and generates \$63,000 in revenue per year. It is truly a win-win deal.”

<http://ottawa.ca/en/news/free-public-wi-fi-access-coming-25-city-facilities>

# EU Digital Single Market

## Overhaul of the telecom rules

The Commission will present proposals to improve the telecoms regulatory framework to:

- Improve spectrum coordination, and spectrum assignment at the national level;
- Create incentives for investment in high-speed broadband;
- Ensure a level playing field for all market players;
- Create and effective institutional framework.

<https://ec.europa.eu/digital-agenda/environment-digital-single-market>

## Environment | Digital Single Market

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Latest

The Digital Single Market aims to create the right conditions for digital networks and services to flourish by providing high-speed, secure and trustworthy infrastructures and services supported by the right regulatory conditions.

Innovative digital services need the right environment to thrive. The Commission will create the right conditions for advanced infrastructures, proper regulatory conditions for investment in digital networks, ensuring a level playing field between market players and improving the foundations of Europe's digital economy.

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<https://ec.europa.eu/digital-agenda/environment-digital-single-market>





*Best regards!*

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of Bosnia and Herzegovina

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