MNS Consulting
Management – Technology – Engineering

MNS Viewpoint
OTT disruption in the telecom market: opportunity or threat ?

1. Introduction

OTT (Over the Top) refers to any application that provides a product or service over the internet and bypasses traditional distributors such as internet service providers and telecom operators.

Since 2009, key OTT players rapidly disrupted the telecom market, and incurred to traditional operators loss of revenues and declining profitability by introducing new delivery models and business models.

We will focus in this whitepaper on the analysis of the strategy of the key players of the **2 main segments**: **OTT communication** and **OTT media** as described in the figure 1 below, and their related impact on the telecom market.

OTT Communication	OTT Media
Text Messaging Voice & Video Messaging	TV - Video delivery Audio delivery Gaming

Fig.1: the 2 main OTT segments

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The market is dominated by the « Fab Five », composed by: Google, Apple, Microsoft, Facebook, Amazon, which usually operate on both segments.

2. Communication segment

The communication segment is splitted in two:

- Messaging applications such as WhatsApp
- Voice and Video applications such as Skype.

But more and more OTT applications provide both services on the same platform.

OTT communications providers basically deliver **"free" services**: they enable to send text, media messages, or to make voice and video phone calls via a dedicated "VoIP" application free of charge.

They **create minimum constraints** and **requirements** for consumers who only need to get compatible devices with internet access. (Potentially both end-users need to install the same application, the same mobile OS or a termination enabled service).

This strategy has **leaded to quick successes** and **opened new perspectives:** OTT applications are today overtaking traditional SMS and voice services. According to Analysys Mason (see Figure 2), SMS is taken over by OTT messaging (including text and media messages) since 2013.

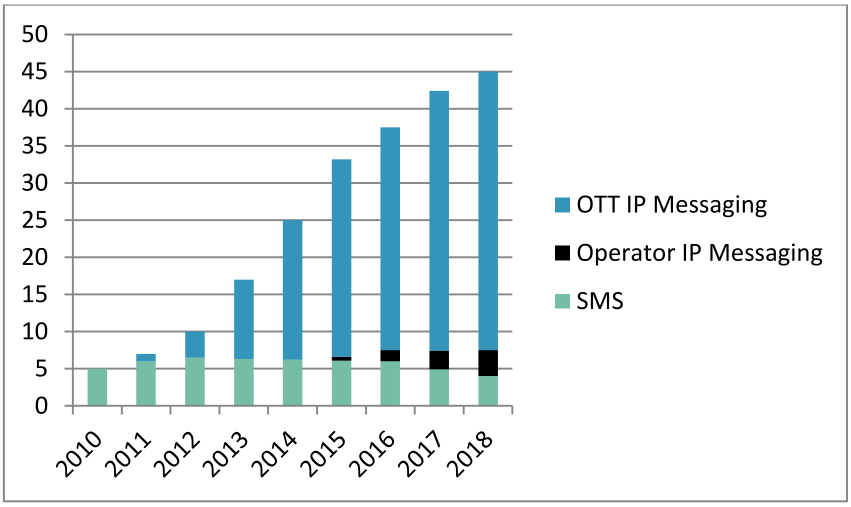


Fig.2: Messages forecasts (trillion)

The SMS market is forecasted to decline, however not as sharply as predicted few years ago. It will continue to drive the global revenue of this segment since OTT communication players are still struggling to monetize efficiently their services.

OTT services provide additional features, such as availability status, group discussion, file sharing, stickers, localization based advertisements … and most of them are free via an internet connection through WiFi or a mobile data plan based on 3G or 4G.

As a result, OTT's communication growth induces **key challenges for telecom companies**:

- Explosion of the data traffic resulting in **huge investments** in order to cope with consumers bandwidth demand,
- **More competition**,
- **Fading revenues** notably on the voice segment and a global **reduction of operating margins.**

3. Media segment

OTT Media delivers TV-Video, Audio and Gaming content using the open internet and without intervening carriage negotiations or infrastructure investments.

This market is very dynamic: the key OTT TV-Video segment is forecasted to reach 51 B$ in 2020 (source Digital Research).

OTT Media enable linear (live streaming) or "on demand" (VoD) content delivery. The content provider can be whether a traditional production or an individual. The aim is to shift end users' behavior towards media content, by providing richer services in terms of content, available at anytime and via any connected devices.

The targeted customers are mainly private users, and the main revenues of TV-Video segment, is coming from Advertisements.

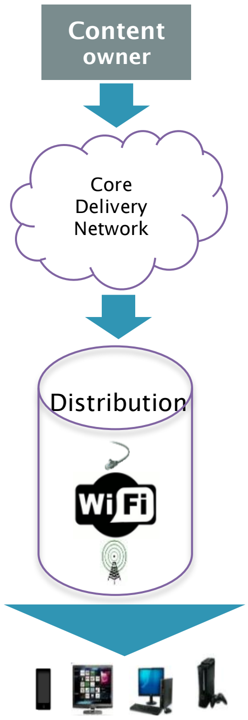


Fig.3: Overview of the delivery process

As a result, OTT Media are **strongly impacting the telecommunication industry**:

- The first impact is related to **content distribution changes**. The traditional mode of consumption is replaced by a new one where several devices can be used to access to the services.
- The selection of content is almost **limitless and accessible whenever, wherever**, as long as the device is connected.
- Regarding Pay TV OTT players, for a subscription fee the consumer is offered an access to a broad choice of TV movies and programs, unlimited, with a high definition quality. Thus, they are **creating new Business models.**

- Network Operators **used to provide control and distribute the media content**. When OTTs have emerged, their only value and task became the delivery of content packets.
- **The explosion of data traffics**: OTT media is the major contributor to the boming mobile data traffic with VoD and Live Streaming (Youtube is at the forefront of this revolution)

The main change induced by OTT media is related to the content access and the final distribution. Contents are now available at anytime, anywhere and with any connected device

4. Key players

Referring to Frost & Sullivan analyst, here the following figure 4 is providing a classification of the key players:

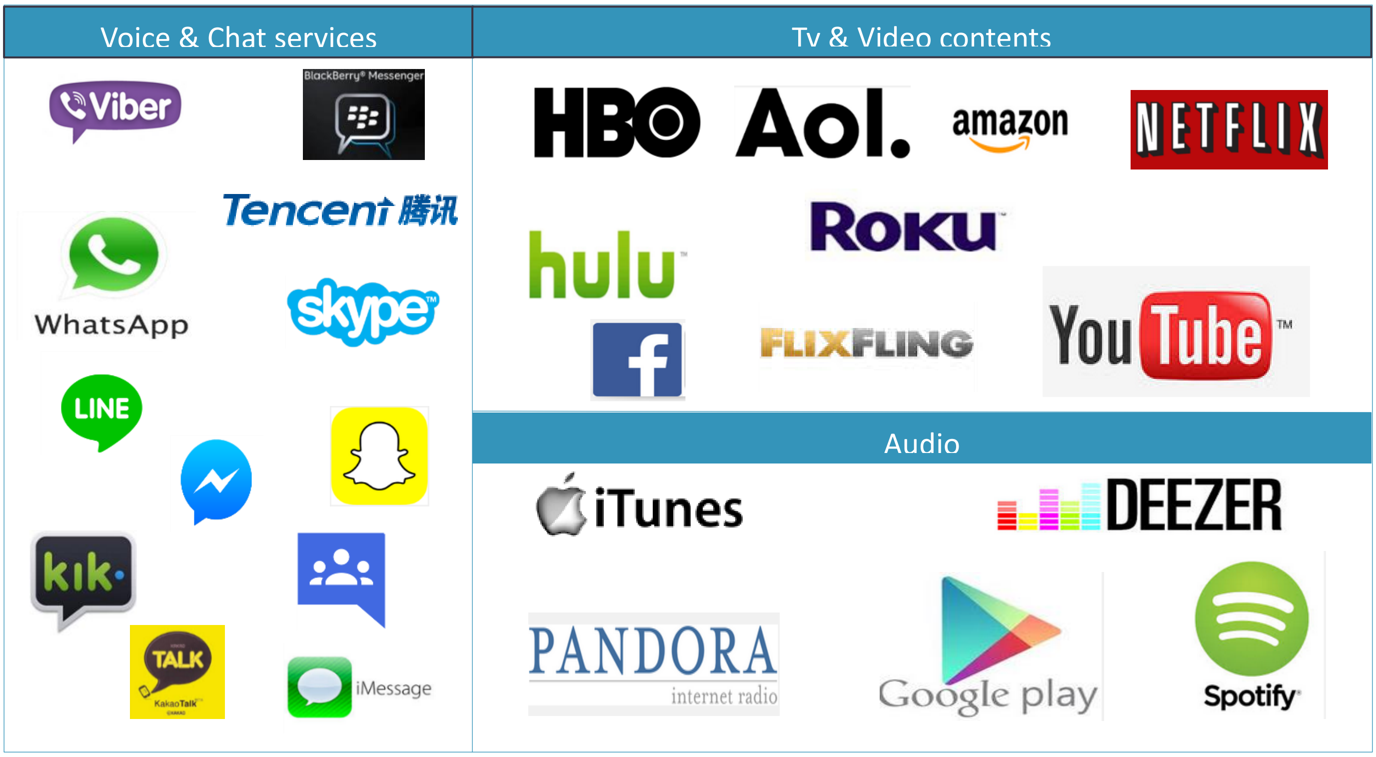


Fig.4: OTT Key players in Voice, TV-Video and Audio segments

But the market is still dominated by the "Fab Five": Google, Apple, Microsoft, Facebook, and Amazon.

They have acquired the main "pure" OTT players with different rational behind:

- Integration within their own ecosystem (Microsoft with Skype) or
- To let them operate as a separate entity (Facebook with WhatsApp)

5. The disruption induced by the launch of OTTs

During the last 7 years, the rapid growth of OTT players quickly leaded to huge loss of revenues for traditional Telecom providers, especially regarding voice and messaging market segments. The impact has been most evident in Europe where notably WhatsApp gained a particular traction.

Today, the loss of revenue to OTT messaging services is worth 7% in the voice segment, and up to 28% of mobile network operator's messaging revenue (Source OVUM), and the forecasts clearly underline the growing market share of OTT messaging players.

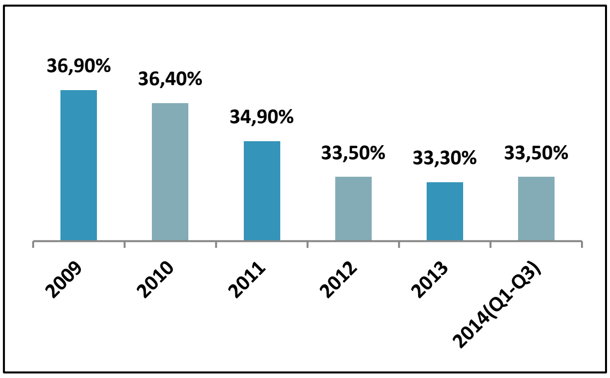


Fig.5: Operators' EBITDA Margin

However, there are signs of stabilization in the margin trends since 2014, mainly due to market consolidation, moves and rationalization of operators.

Several strategies have been adopted by mobile network operators (MNOs), in order to compete with OTT players:

- **A defensive strategy**: consisting to block OTT services in particular VoIP. For example, last year UAE operators blocked the VoIP call functionality rolled out by WhatsApp messenger.

- **An offensive strategy**: where MNOs develop and promote their own OTT messaging service. For example, in France, Bouygues Telecom has launched « World& YOU », an OTT messaging app like, enabling to send messages and make calls for the company's customer who are staying abroad. The pre-requisite is to have a WiFi access.

- **A collaborative strategy**: working closely with OTT messaging players in order to monetize effectively the services. For example, Vodafone UK has launched a data plan, available with a 4G subscription that gives a free subscription to Netflix or Spotify for example.

- And finally the **neutral strategy:** adopted by a large majority of network operators few years ago**.**

The combination of offensive and collaborative strategies seems to be the most relevant to be adopted by telecom operators

6. The key issues for OTT development

Even if OTTs were successful in the last decade, they are still facing major challenges to continue their development:

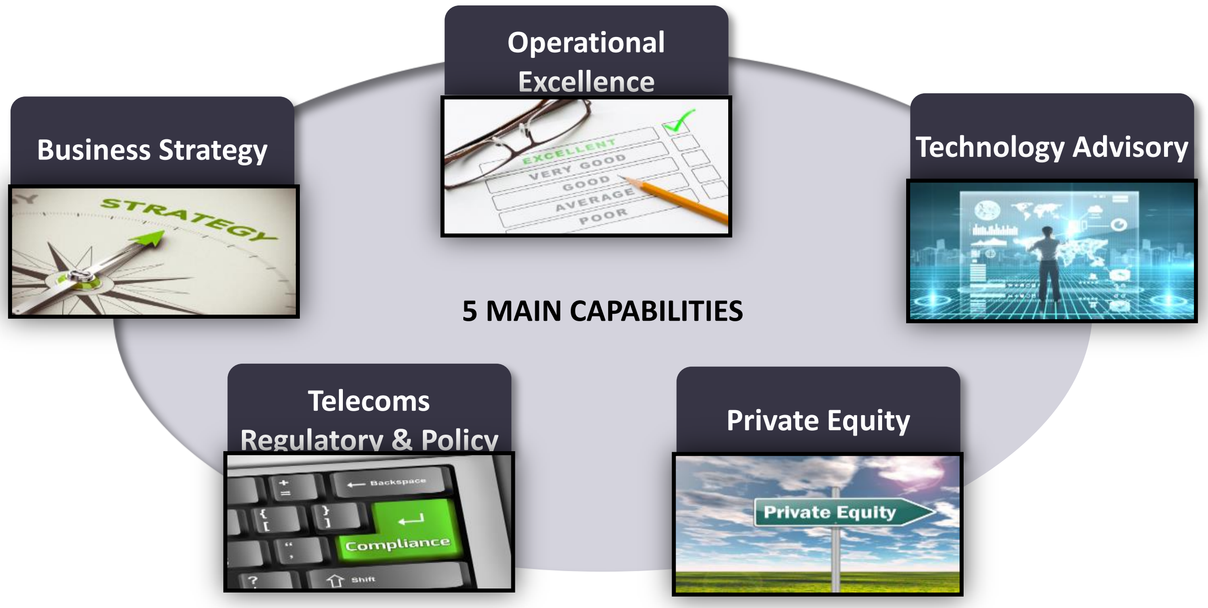
- **The need for global reach**: infrastructure is a key challenge for OTT players. Even though reachability is not an issue within big connected cities and more generally in developed countries, according to the latest figures from Internet World Stats**,** 57% of the world population don’t have access to internet
- **High and dynamic consumer demand:** end users are having more and more requirements regarding the quality of experience as well as the richness of the contents. OTT services are unmanaged and the quality of delivery depends on the quality of the end user’s network. However, major improvements have been made in the end delivery chain including for example ABR streaming which enables the switch between different versions of a given video when a low bandwidth is detected.
- **Regulatory challenges**: regarding Pay TV operators and audio content distributors. Rights management have been an increasing issue with the proliferation of Peer to Peer sharing
- **Monetization of OTT services**: deals with the ability of OTT players to find the right business model that gives incentives to pay for their services. That statement is particularly true for OTT communication players.
- **The ability** to add more adjacent services thanks **to localization, target advertising and a more sophisticated use of end users pieces of information.**
- **A better collaboration** between OTT players and connected devices manufacturer, in order to expand their device penetration and notably within emerging markets. According to GSMA study, the adoption rate within developed markets has almost reached 60% in 2014, ranging from 51% in Europe to 70% in North America

Reachability, less dependence to traditional players’ infrastructure and a good monetization model is key to the growth of OTT players

7. About MNS

MNS Consulting is an international strategy and engineering consulting firm specialized in the telecommunications industry. We have developed a unique expertise in Telecoms network domains. We distinguish ourselves with a strong combination of deep technological expertise and strategic vision that allows us to address the challenges of our customers. We are committed to delivering outstanding consulting services and highest value to our clients by helping them to drive growth, manage complexity, and improve operations and performance in a complex and fast changing market. Our strategy consulting capabilities are structured around 5 practices as described below.

MNS is headquartered in Paris and has also operations in Africa and the Middle East.



For further information please visit: www.mns-consulting.com