The Impact of OTT

WHITE PAPER

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THE IMPACT OF OTT

Embracing the future of communications as a foundation for success

INTRODUCTION

The impact of Over-The-Top (OTT) service providers on Operators is well documented. Initiatives to combat or slow this trend have not yet materialized to create a viable deterrent. New regulations, including net neutrality laws, further remove barriers to success for OTT applications. Competitive pressures driven by the ever greater thirst of consumers and business for a faster more reliable data experience force Operators to continue to invest in the speed of their networks that further float the rising time of OTT popularity.

The game is unwinnable - it's the Kobayashi Maru for the Network Operator. So why play? It's time for Operators to change the game. They need to let go of their legacy business models and embrace today's communications landscape. It's time to reap the benefits of their network investments and stimulate new revenue streams. In this whitepaper we explore the market trends, the opportunities that embracing an OTT strategy creates, and the basic building blocks required to provide the foundation for success.

"NOTHING IS EVER SO BAD THAT IT CAN'T GET WORSE"

Today's digital business models have evolved so rapidly that no truly accurate predictive data exists to forecast how prolific the impact of OTT applications will be on traditional Operator revenue streams. However, a recent study conducted by the International Telecoms Union predicted that Telecom service revenues of $702BN would be eclipsed by OTT revenues of $751BN by 2021[1]. The decay has been rapid and pervasive starting with voice, moving to messaging and video. In 2008, Skype was seen as a nuisance to Operators but by 2013, Skype growth eclipsed traditional international phone traffic by over 15BN minutes per annum[2]. The decimation of SMS was even faster. In 2011 OTT messaging traffic was less than 5% of all messaging globally. By 2013 OTT messaging had surpassed SMS as the primary source of message generation, and today SMS represents less than 10% of traffic globally[3].

The three key drivers influencing OTT adoption include device improvement, consumer communication demands, network technology and availability. Device intelligence, particularly in the smartphone market, has grown exponentially over the past 10 years. Most prolific was the advent of the iPhone introduced in 2007 that changed consumer perception of the use of mobile technology. Since then improvements in chip performance, support of higher data speeds, high resolution camera technology, enhanced battery autonomy and integrated sensors have revolutionized our mobile world. Network technology improvements fall into two categories. Perhaps the most important of these is the mass transition to IP networks that enable a rich communications experience and support the core functionality of OTT applications. Traditional switch based services with highly developed usage based charges are expensive for voice and SMS when compared to the IP enabled OTT experience that can be consumed for free.

This, coupled with network investments by the Operators have enabled enhanced Quality of Service (QoS), including faster broadband speeds and mobile network speeds, which has improved the quality of the OTT service experience. Device capability, IP enabled rich communications and bandwidth availability has created a demand from consumers seeking more personalized and immersive multi-channel communications experiences. The expectations for content accessibility anytime and

1 Source – IDATE – World Internet Services Market and Detecon Forecast

2 Source - Telegeography – Increase in international Phone and Skype Traffic 2014

3 Source – Messages sent by mobile service type, worldwide – Source Analysis Mason 2014

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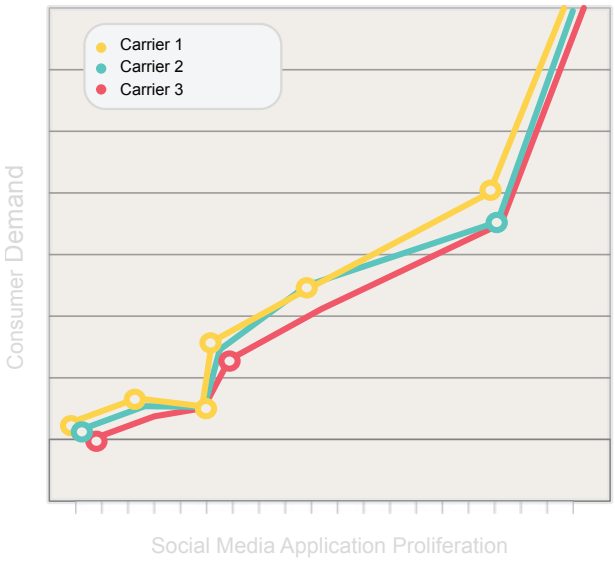
anywhere are served by a proliferation of both social media applications and streaming providers scrambling to satisfy this demand. We share and consume more than ever before. Of particular note are the revenue streams themselves. Network Operator revenue reductions and OTT revenues are not like for like. While some OTT offerings are



subscription or transaction based, most generate revenues from a combination of "Freemium", "Advertising," or "Monetization of Information". In the "Freemium" model the user benefits from free base features but pays for advanced or convenience features. "Advertising" revenues are generated from the sale of targeted advertising or banner ads and have become extremely sophisticated in targeting specific user groups through the use of advanced data analytics. "Monetization of Information" involves the user community disclosing their own information or content and allowing the OTT provider to monetize it. In its recent S1, LINE Communications[4] gives insight into its strategy. They refer to their primary revenue sources as "games, stickers and advertising services on the LINE platform". LINE also lists future revenue opportunities to monetize their subscribers through the use of the platform as a channel for content and platform providers to access their users with paid content and services, all generated through the provision of a free messaging, video and audio calling service as their core consumer offering from which not one cent of revenue is generated.

4 Source - LINE S1 Filing - SEC

"MAKE A MISTAKE ONCE AND IT'S A LESSON. MAKE A MISTAKE TWICE AND IT BECOMES A CHOICE"

If each of these OTT applications is reliant on a network to deliver its services, then surely the Operator should be in a prime position to exploit them. The reality is many are not prepared to do so. If the network were a marketplace, the key would be to enable commerce and focus on providing the ancillary services to support it and to exploit the benefits. In order to achieve this there are a number of brave realizations and decisions that the Operators need to make to be successful.

Embracing an OTT strategy enables the Network Operator to embrace legacy product rationalization and benefit from not only the cost savings, but the simplicity the operation of a rationalized environment permits. This does not happen overnight, but robust product lifecycle management and ruthless decision making with enforced migration paths are the key to success. To achieve this, the Operator needs to have a clear product roadmap, business model, and revenue replacement program.

Legacy revenue streams and business models are exceptionally difficult to give up, but those who are doing so are learning to adjust and reach beyond them to reap the rewards of their bravery. This is made harder as legacy product revenues tend to carry many "false positives" that are reflected in profitability statements that are not realistic. While a product or service in accounting terms may appear to be profitable as it is running on a fully depreciated infrastructure, many of these models ignore the operational reality of managing legacy systems and networks to keep a product alive.

"INSTEAD OF OBSESSING OVER WHAT YOU CAN'T CHANGE, FOCUS ON WHAT YOU CAN"

To benefit from the OTT opportunity, Network Operators must focus on market enabling products and services drawn from core strengths of its network and communications assets and investments.

In its 2015 paper entitled "Enabling the OTT Revolution, How Telecom Operators Can Stake Their Claim"[5] Strategy & (Formerly Booz Allen) outline three strategic plays: Protect the core, enable other businesses and create new user experiences.

"Protect the core" focuses on generating value based pricing models and bundles that are designed to increase ARPU (average revenue per user) or acquire new customers. It also encourages the consideration of higher value services differentiated by quality of service that only an Operator can offer. These are particularly attractive in an Enterprise environment where quality of service issues are a fundamental consideration. To bring this strategy to life, a key component is the definition of a service catalog with a granular enough definition of individual service components to be able to differentiate against the needs of different users. Even in the Enterprise, individual users should be defined and treated as different user groups that can select from a menu of services necessary to enable their role based on its complexity and priced against business value. For example, an Administrative Assistant may require basic communications services of phone, messaging, and conferencing, whereas a revenue generating Sales Rep will need mobility, advanced messaging, CRM access, and other services to effectively perform their duties. Combined with a 9.9999 service level, this type of multi-tiered offering is out of reach for the OTT provider.

"Enable other businesses" is the concept of the network as a digital marketplace. This strategy focuses on building open networks with advanced network services including tiered quality of service, security, and identity management to enable the network digital marketplace. It also highlights that this environment should incorporate open interfaces that would enable data analytics, payment, and billing services to be available to third parties. These services can be bundled together and delivered as a customer or industry specific offering. For example, connectivity services bundled with a payment solution for retail customers or higher bandwidth services and customer analytics for media marketing. Of particular note in this strategy is the concept of OTT aggregation by offering users the opportunity to be able to use these services through a "single sign-on" and opening up the opportunity for these applications to be bundled into new and differentiated offerings that harness the existing OTT functionality. Finally, and most importantly, this strategy highlights the opportunity for data aggregation and analytics. Network Operators today have access to user information that is not only demographic, but also behavioral and location based. This data and its analysis is extremely attractive to many consumer facing industries and offers the Operator a lucrative revenue opportunity.

Fundamental to enabling this strategic play is the need for the Network Operator to think differently and become effective at building and managing partnering strategies. Revenues will come from very different sources and Operators must learn that lower gross margins will not mean less profit. If successful, this strategy is by far the most transformational. It will create new markets for Enterprises and better experiences for the consumer. By being a member and customer of the network community your services will be readily available to other members, customers, and consumers pre-integrated and ready to trade.

"Building new customer experiences" Traditionally, developing OTT applications has been extremely hard for Operators who have struggled with the limitations of their existing environments. Consumer OTT applications are by nature ubiquitous and an application available only on a single network providers' footprint is extremely limiting. Those that have tried have failed. However, niche development in specific verticals where a heavy reliance on availability and security exists can create a real opportunity. As an example, in their paper Strategy& discuss Orange and its success in the Healthcare vertical highlighting the fact that, at the time of writing, over half of the independent healthcare professionals in France use the Orange application and systems to send treatment forms connecting over 12 million customers to their insurance companies. This strategy represents a great opportunity for Operators. The advent of A2P (Application to Person) communication further enhances this by opening up a variety of consumer use cases that enable continuous short updates on everything from service status to localized advertising, creating both cost saving and revenue

5 Source – Strategy& - Enabling the OTT Revolution, How Telecom Operators Can Stake Their Claim

generating opportunities. Operators are uniquely positioned to link their consumer footprint to their Enterprise customers with all of the benefits that an on-net relationship can provide. Enterprises can offer discounted or differentiated services to the Operator's consumer base and develop applications that integrate directly with the Enterprise's contact center applications and back end systems that are also provided and hosted by the Operator. This delivers the benefits of a captive customer base to the Enterprise and valuable offers with highly accessible services to the consumer, further differentiating the Operator from its competition.

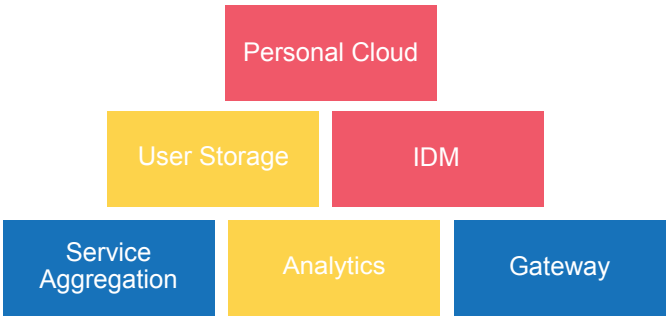
"THE BEST WAY TO PREDICT YOUR FUTURE IS TO CREATE IT"

To deliver the promise of each of these strategic plays the Operator must utilize and invest in their core asset: the network. To enable the network environment to embrace an OTT strategy there are a set of common building blocks and capabilities that must be in place. These capabilities are key investments that should be prioritized:

The ability to aggregate multiple services – Key in enabling each of these strategies is the Operator's ability to aggregate multiple services from either existing or third party products or services. This enables the Operator to build and manage granular service catalogs from which tiered user or industry specific solutions can be easily created and managed. The catalogs will consist of native network, infrastructure, and communications capabilities reinforced by third party, industry specific or OTT applications presented to differentiate the Operator's offerings.

The presence of a Business Gateway and supporting APIs – Hand-in-hand with the aggregation capability is the necessity of a Business Gateway. The gateway supports the integration of third party applications through a series of open APIs that enable them to be consumed in the "Network as a Digital Marketplace" delivering a seamless user experience. The business gateway also allows the application provider to monitor usage and billing, provide support, and push updates to their application.

Universal Identity Management capabilities – Uniquely, the Operator has the ability to be able to offer network level authentication to support Universal Identity Management. Unlike individual OTT applications, this type of



authentication offers a frictionless experience to the user across all services to which they subscribe. Tiered subscription models are easy to administer with the consumer able to add and remove available services. Equally, new third party service offerings can be easily integrated into the network environment to further expand the ecosystem. Fundamentally this capability offers robust security capabilities that enable the users to safely transact. Correctly promoted, network level authentication and security is a key accelerator for e-commerce particularly in a mobile environment. The entire community of consumers, service providers, and businesses can trade with confidence, driving up transaction volumes and service adoption.

Network based Individual User Storage or Personal Cloud – It is necessary not only for the user experience, but also to a data monetization strategy for the Operator, to have the capability to deliver a network based individual user storage capability. This capability provides the user the benefit of the personalized storage of information and media as well as allowing the Operator to leverage the availability of user and behavioral information to enrich their data offerings. Using a data analytics engine to analyze network and user data, combined with A2P communications, allows Operators to offer highly targeted services and advertising to their consumer base.

Data Analytics capabilities – Data Analytics capabilities enable both the effective capacity management and planning necessary to ensure the smooth operation of the "Network as a Digital Marketplace," but also offer a key revenue generating opportunity to the Operator through data monetization as previously highlighted. The ability to be able to analyze large quantities of operational and transactional data will inevitably identify new, highly valuable service offerings that can be delivered to the Enterprise or the user. This will provide Operators cost savings or revenue generating opportunities that can further differentiate

them from their competition. It is evident the proliferation of OTT service providers will continue to have a profoundly negative effect on traditional Network Operator revenues.

"IT TAKES EFFORT TO WIN A GAME, BUT IT TAKES COURAGE TO CHANGE THE GAME"

It is difficult to predict the exact timeframe over which this decline will occur, but it is inevitable and is likely to be swift. Defensive strategies have proven ineffective and are further hindered by legislation and the Network Operator's inability to develop products and services at the same pace as their OTT competition. However, by embracing an OTT strategy there are tremendous benefits that include legacy product rationalization, cost savings, and most importantly profitable revenue generating opportunities. Key to the Operator's success is the use of their core assets and a focus on building and delivering the services necessary to enable the "Network as a Digital Marketplace". There are fundamental capabilities to enable this strategy that must be prioritized as investments by the Network Operator. Successfully executing against this strategy will enable the Operator to benefit from many different revenue sources and focus should be on profitability and not gross margins as more third party applications are integrated into offerings. The importance of the network in today's digital economy means that those Operators who embrace this change will see many benefits; those that don't will be consolidated, or in countries with smaller numbers of Operators, may lead to the creation of a network as a third utility.

Click here to learn how you can build new customer experiences

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