



# Mobile Operators Give Data a Winning Edge

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## Abstract

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An increasing number of mobile subscribers are using their phones to do practically everything - from checking emails, using enterprise applications, shopping, availing of government-citizen services, doing banking transactions, to getting entertainment, education, news and social chatter. This usage can be directly linked to high-speed data services being launched across the world. Advanced mobile markets such as South Korea, Japan and the US are reporting massive spikes in data consumption. The growth in data consumption is expected to spread further as 4G is rolled out across markets. The shift in balance from voice/text-driven usage to data-based usage spells a new era for mobile operators. Can they exploit it to power future growth?

## Introduction

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The scale at which data consumption is growing is an indicator of the urgency for mobile operators to rethink their plans.

The numbers indicate that just around the corner is a society whose data consumption will be so huge that it will demand better quality of service, improved devices, seamless convergence, better pricing and packages. The trend is already cutting across age groups, demographics and markets.

The growth in data usage heralds a significant change for mobile networks that have depended largely on voice revenues. Historically, an MSISDN (Mobile Station International Subscriber Directory Number) or a mobile number has tied subscribers to their network operators. The

unique number ensured that they remained with the operators as it was their identity<sup>1</sup>. But in a world dominated by data, the primary identity that customers have is their login IDs for Over The Top (OTT) services such as emails, online bank accounts, Twitter, Skype, etc. This ID is not operator dependent. As a consequence, the customer is free to change operators with no pain or disruption.

## Change in Operating Landscape

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### The shift in network usage patterns spells three changes:

- » **Increase in Churn Propensity:** The churn is in the customers and in their revenue. There are sophisticated mathematical models that can predict customer churn. Operators can initiate appropriate counter measures. But there is no model to predict revenue churn. The customer can continue to use an operator's voice and text services while migrating to a competitive operator for data or other sophisticated services
- » **Enhanced Customer Value:** Provide data services to customers which go beyond just connectivity by tailoring the offers to the nature of data consumption
- » **Introduction of New Business Models:** Given that data consumption is driven by OTT service providers, operators must consider partnerships with such providers. Working with OTT service providers means drawing and implementing new business models

**The question for operators is -- How do I do this quickly and flawlessly to be able to flourish in a world where data consumption is the revenue driver? There are three significant ways to address these changes:**

- » **Differentiate and Grow:** Operators must think in terms of becoming a valuable component of the customer's digital life. They must be

<sup>1</sup> By 'identity' we mean the fact that one subscriber cannot speak to another without using a specific and unique phone number.

prepared for new business models, new revenue opportunities, and new ways to cross sell and up-sell

- » **Become Lean and Agile:** The operators must focus on simplification and standardization of infrastructure, applications, systems and processes. Complex systems take time to be re-shaped. Legacy systems become barriers to responsiveness. Widespread customization can be time consuming with low ROI
- » **Innovate:** There is a need for the operators to focus on partnering with OTT/ third-party providers who are an integral part of the customer's digital life. There is also a need to automate end-to-end processes between platforms, enable mobile convergence in real time and create bundled customer propositions to increase convenience

## Will finding investments become a challenge?

Addressing these changes calls for additional investments -- these may not be easy to find for a CXO, who is already balancing cost and investment pressures.

In addition, the CXO must deal with several other growing challenges, including cloud adoption, technology for faster networks, proliferation of smarter devices, richer content and applications, digital delivery models, etc. These developments are, unfortunately, outside the purview of operators. Operators must, therefore, learn to quickly align with them or adapt to them.

Aligning or adapting calls for a shift in the focus of the CXO. It means making investments in the new technology areas that are changing the rules of play:

- » **Convergence:** As the operators focus on more data-driven services, the difference between network infrastructure and IT applications begin to disappear. The customers are free to use the network for data/voice/video services over the fixed or mobile networks as they please
- » **Digitalization of customer interactions and processes:** Interactions between customers and telecom providers and those between the telecom providers and their partners move towards a digitalized interaction, meaning that they are seamless and without manual interventions
- » **Customer insights and Customer Experience Management:** Customers expect that the operators provide them a unique experience based on deep insights about them, rather than a generic one-size-fits-all type of approach
- » **Real-time analytics and customer service/interaction:** Services are expected to be based on real-time analysis of the network behavior or the customer preference. Many interactions with customers could potentially become stale if they are not acted upon at the right time
- » **Cloud and virtualization in IT & network:** With the popularization of cloud technology and the availability of high-performance commodity hardware, both IT and network applications can be ported to the cloud. Network Function Virtualization (NFV) as a technology provides us the path for introducing the cloud and virtualization in network applications

- » **Expose the network and monetize:** API exposure of network services leads to better monetization of network investments over and above the traditional connectivity-based revenue streams. New business models and ecosystems that utilize the network APIs to deliver specific services to customers are evolving and the operators need to invest in such solutions



- » **Enterprise and SME services:** To enhance revenue and create stickiness with customers, operators are investing in creating specific services targeted towards enterprise and SME customers, which will lead to operators' moving up the value chain
- » **Internet of Things and other digital businesses:** Digitally delivered services such as M2M or IoT, mobile device management, content services, mobile money and other data service platforms lead to new digital business models in the operator ecosystem, which challenges the conventional ways of doing business

## Prescription for CXOs

CXOs are saving money from their current operations amid budget constraints to make investments in areas that are now critical to businesses.

The emphasis is now on technologies that insure them against becoming obsolete. Automation (of Testing, network and application management, order management and provisioning, charging and billing, customer support, etc.) is becoming a big ticket item as a means to save on resources.

There is enhanced vigor for Shared Services (accounting and finance, HR, knowledge management, BPM, infrastructure and application management etc.) and group initiatives as a way to standardize processes, bring down operational costs and amortize CAPEX.

The thrust to consolidate and modernize in order to improve efficiencies and economies of scale is becoming stronger as well. Savings generated through these initiatives can be ploughed back into 4G networks for providing faster mobile data services. Implementing these business and operational changes will automatically use new technologies in the market.

We are witnessing the emergence of Next Generation Operations and Business Support Systems (OSS/BSS) to support new demands. Customers don't want to wait for a bill till the end of the month, as is the traditional norm. Today, they want to be able to check their accounts any time of the day and be able to view real-time billing data. In fact, they also want information posted directly to them as soon as a call or data download is over.

Creating a response to these demands are technologies such as cloud, NFV and Software Defined Networks (SDN). Operators are migrating from proprietary hardware and systems that have been the bedrock of mobile networks for the last three decades to open systems that are flexible and cost effective.

Over the years, the only way operators could address growing demand for data was by increasing bandwidth – bigger pipes were the fundamental improvements brought about by 2G and 3G. But today, intelligence can be embedded into edge devices, within the core of network systems and even within the networks itself<sup>2</sup>. The idea that networks themselves can become a service is taking root with Application Programming Interface (API) exposure as a means of monetizing networks.

Responding to these changes are technology providers. Their business models and practices are changing. The market is evolving with new integrated Next Generation OSS/BSS vendors.

## The Way Forward

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In these fast-changing times, CXOs would do well to look for competent technology partners.

Together, the focus should be on IT, network and process simplification, standardization of architecture, with an emphasis on growing and improving shared services. These would help operators become more efficient, create savings to invest in 4G and improve time to market.

The other area that calls for attention is network monetization, improvement in customer experience and analytics to generate better offers and campaigns. These would ensure that the operator could offer differentiated services to grow loyalty and reduce churn, to take care of the customer expectation that they be treated in a unique manner as against the standardized service offerings of the past. The platforms and solutions available shall enable customers to pick and choose.

The third and last area that needs to be emphasized is innovation. Operators must find innovative business solutions for their high-value customers using next generation technologies, consider ways to monetize their network and data center investments and engage in joint propositions across emerging areas that are potential threats and opportunities.

<sup>2</sup> The idea that 'dumb pipes' can be embedded with intelligence in order to understand what is passing through them – and then trigger quality of service parameters, service enhancements, incentives for customers and billing rates is gaining ground.

## About the Author

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