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INTRODUCTION

To say that revenues in the telecom space are under pressure is an understatement. Organizations today have but one priority-unearthing effective ways to drive incremental revenue.

And why not? The rules of the game have changed; new ones have emerged, particularly pertaining to growth. Understandably so, especially with digital-first companies such as eBay, Netflix, et all, challenging the status quo.

Technology providers are standing their ground, of course. The agenda is simple-adopt a transformation-centric approach, aimed at "digitizing" the business. Equally important is leveraging data to delight customers and driving incremental revenue through personalization.

The key takeaway from all this is simple. Going "digital" has redefined the rules for customer engagement. After all, isn't the norm in today's hyperconnected era **Know the Customer**?

STRAIGHT TALK

"It's all about Customer Experience and Ease of Use at the End of the Day"

In this session with **Mark Newman**, Chief Analyst, TM Forum, **Mao Mohapatra**, Chief Executive Officer, Comviva, explains how communication service providers can leverage their data and build new revenue streams in the business-to-business market. Excerpts...



What do you see as some of the key trends in terms of the services that mobile users are consuming?



Well, we can see that data consumption is still increasing massively. In India it is grown more than 4 fold and now more than 10GB per user per month today and I could easily see it increasing to 1GB per day. There is a huge amount of innovation in new services, choices are growing exponentially but there is a limit to how much content anyone can consume. What you really want to stop your life becoming miserable is a more efficient way to navigate and get access to the most relevant content. I was speaking to an operator in South East Asia recently which has divided its customer base into 1500 different segments in an attempt to serve them all with the services that are most relevant to them. But ultimately this customer segmentation is not sustainable; it has to be systems driven. Artificial intelligence (AI) and machine learning (ML) will play a huge role in this, allowing communication service providers (CSPs) to segment markets, segment data, and allowing consumers to narrow down the choices that they have to make in the shortest amount of time. It's all about customer experience and ease of use at the end of the day.



And from a telecoms operator perspective, do you still see most growth potential in the consumer market?



No, I don't think so. Consumer average revenue per user (ARPU) is falling and most CSPs are now starting to look at the enterprise market for future growth. But these business-to-business (B2B) opportunities involve using consumer market data. We see big potential for them to monetise their consumer data in the B2B market. In the model that I am talking about, we, Comviva becomes a customer of the telecom company. We buy customer data from them and we add value to it through the use of AI and machine learning. From this data we know consumers' working habits, when they get to the office, when they return home, what devices they are using and which channels they are using. This

data has huge value to banks, for example, and they will pay us for this data. We then do a revenue share with the operator. This is a service that we started trialling two years ago but only in the last six months have made some progress. But the data secrecy and confidentiality plays a crucial role and all the compliance around it is a must.



Presumably this business model means you are changing who you sell to within the telecom company and build up new relationships with enterprises that want to buy this data?



Yes, that's right. We have had to transition from selling to the technology function within the CSP to working with enterprise line of business. We have shifted from partnering with the chief technology officer (CTO) organisation to working with the chief marketing officer (CMO) organisation. When it comes to selling this data to enterprise, we tend to work with aggregators because this allows us to reach more potential customers than if we approached them directly.



And how quickly do you see this business growing?



That's a really difficult question. Uber took three years to reach 100,000 taxis. But the next phase in their growth took them from 100,000 to three million. In practice, we are finding that a large amount of regional customisation is required for this new business opportunity. As such, we are only targeting a few select countries. Our focus is on large markets such as Bangladesh which has 170 million people, Indonesia with 240 million and Egypt with 120 million. This is also a function of regulation. India, for example is very heavily regulated when it comes to the use of consumer data so it would be a difficult market for us.



What other opportunities do you see for CSPs in new markets, particularly the B2B market?



I see potential for collaboration more broadly between telecoms operators and the digital ecosystem. Applications providers depend on telecom companies for delivering services over their mobile networks but operators still have a vital role billing customers, collecting their money, and, with half the world unbanked, providing them with mobile payments services. They have also invested hugely in customer care, customer acquisition, billing and collections. Not every application vendor can build these capabilities and I see huge potential for a marriage between the two with CSPs making some of their core capabilities available to applications providers.

EXPERT SPEAK

Exploiting Social Media Data Across the Customer Lifecycle



ATUL MADAN
Senior Vice President, Digital Lifestyle, Solutions, Comviva

Whilst contending with the challenge posed by Internet companies, telecom operators more often than not tend to oversee the very critical aspect of establishing and maintaining a sound relationship with their customers. This is, interestingly, despite a widespread presence across multiple social media platforms, such as Facebook or Instagram.

This webinar examines how operators can strengthen their relationship with the

customer via these social channels. This process, needless to say, requires to be executed in a holistic manner, encompassing aspects of customer acquisition, lifecycle management and customer support. Equally critical to this is onboarding social media partners, to facilitate an operator's "digital-first" capabilities.



Scaling AI for Success in Customer Value Management



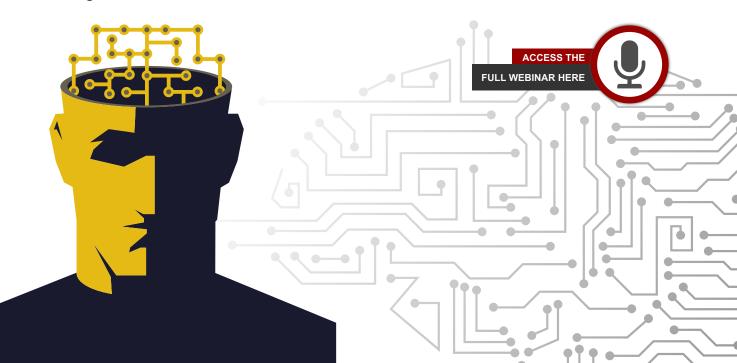
AMIT SANYAL

Senior Vice President and Chief Operating Officer, Consumer Value Solutions, Comviva

Technologies, such as artificial intelligence (AI) and machine learning have, without a doubt, made their presence felt in the customer value management (CVM) space. Before these can be leveraged to their full potential, however, several challenges will require to be addressed. For operators to success fully leverage AI in CVM, they need to make sure that their data, and approaches to storing data, are in a fit state. Moreover,

these players require preparing for the inevitable impacts on roles and responsibilities within the marketing function.

This webinar explores in more detail the building blocks that telecom operators need to put in place before they start to use Al and the benefits to CVM that will result.



AI & Machine Learning: Thwarts Threat to Enterprise Messaging Ecosystems



DESHBANDHU BANSAL

Chief Operating Officer, Messaging Solutions, Comviva Technologies looks at the importance of controlling messaging

Enterprise loves messaging; it allows them to engage their customers in the most cost effective manner, moreover, in today's highly competitive markets messaging provide businesses with a channel to drive customer life-time value with highly interactive and engaging communications, designed to cater to each individual's unique persona and requirements. Similarly, the growth of messaging has allowed operators to create new sources of revenue besides rising up the value chain in the messaging economy. Since the messaging opportunity is so critical for operators, as well as the enterprise segment, there is a growing interest in AI & Machine Learning to ensure the continued growth and health of the overall messaging ecosystem.

RISING DEMAND FOR ENTERPRISE MESSAGING

One of the biggest factors for messaging popularity is the increasing penetration of mobile. According to GSMA Intelligence, today there are more than 8.97 billion mobile connections, surpassing the world population by more than a billion. Similarly, there are 2.71 billion smart-phone users today, constituting almost 35 per cent of the global population. Secondly, SMS has made B2C communications easier. Businesses can reach out to anybody with a mobile phone with short messaging services. SMS is also a high ROI messaging channel, where SMS open rates are measured in seconds. Studies

have shown that four out of five customers will read an SMS within 30 seconds, which is a higher rate than any other medium. Now, if we compared this number to email open rates, it will become easy to understand why SMS has become so critical for enterprise communications today. Thirdly, the growth of analytics, combined with the customer's willingness to share their data if it leads to better service, have made it easier for enterprises to understand the impact and ROI of each messaging platform, and fine-tune it to different customer personas and requirements.



OPERATOR OPPORTUNITY

With operator's voice and SMS business declining rapidly, there is a growing need for operators to generate fresh revenue streams. In this context, A2P is critical for operators, as it guarantees consistent revenues for them in the near future, especially with the app ecosystem growing by leaps and bounds. However, in order to fully monetise the A2P opportunity, the operator will first

have to tackle the problem of grey routes. In order to understand the grey route problem, we will have to distinguish between a P2P message, which is the transfer of SMS messages between two individuals, and A2P message, which is the transfer of SMS between and application and an individual. The problem arises when the A2P message is masked as a P2P message, with the objective of saving A2P termination charges, or if the message sender wants to hide his identity for the purpose of spamming. There are several ways to mask an A2P message, such as GT spoofing, SIM farms. In GT faking: the message's global title is altered, hiding its identity. In SIM farms, hoards of SIMS are collected and used for sending out A2P messages in the guise of P2P messages. When enterprises or aggregators try to send commercial messages via illegitimate or zero rated routes, it is known as grey routes. Grey route compromises the ability of the operator to monetise the messaging opportunity leading to operator losses running into billions. Besides revenues losses, grey routes have an impact on the operator's ability to drive quality traffic on its networks. Also, without the means to distinguish between good and bad traffic, the operator is unable to prioritise message delivery. The resulting traffic congestion, may eventually lead to slower message delivery in critical industries such as banking, where a customer wants to be notified immediately for every withdrawal, for example, at the ATM. In the event of this happening. it is the enterprise that has to bear the brunt of the irate customer. Similarly, if the sender is using the system for spamming, it puts the operator's credibility under the sword.





THE WAY FORWARD

Traditionally, operators have been using rules based SMS firewalls for safeguarding the network from misuse. Rules based firewalls use a combination of blacklisted numbers, key word search, URL destinations for categorising messages. However, sophisticated scammers are easily able to overcome traditional detection and prevention techniques based on deterministic rules. limited pattern search and blacklists. Another problem with these deterministic platforms is that they are not 100 per cent accurate, which means that legal traffic may also be blocked if they meet the criteria set by the platform. On the customer experience front, it may lead to poor experience, as they miss out on promotions. Therefore, in the interest of the overall messaging ecosystem, it is time to take a more nuanced approach to the problem. In this context, Al capabilities take a more comprehensive view. Using new advances in the field of natural language processing, the Al-based SMS firewall auto classifies a message into different categories. Unlike conventional platforms which provide limited pattern search, Al platform leverages the past training with millions of similar messages and it analyses words using pattern matching techniques and the context in which the words are used to predict the category to which a given message belongs. Once the messages are categorised, the operator can enforce policy control on a much granular level, which will help to protect the subscribers from spam and fraud, arrest revenue leakages and reduce operational effort for the operators ensuring low subscriber churn from their network.

The Digital Enterprise: Outperforming Your Competition



RONALD VAN LOON

Global Top 10 Artificial Intelligence and the Internet of Things Influencer

With the digital world of data becoming the focal point of discussions and innovation, there is unparalleled hype over what it takes to be a digital enterprise in this day and age. Data sits at the center of the digital revolution, and companies that have determined the best possible way to extract meaning out of data are well on their way to glory.

An organization takes its first steps into the digital world of change when it realizes and utilizes the importance of cloud based technologies like AI and IoT. These services are used to better manage data and to generate the best possible insights from it on a real-time basis.

The insights generated from your data through cloud based services like IoT and AI can help improve business processes, automate tasks, design new products and manage operations in an efficient manner. All of this enables you to cut down on costs and get the most out of the unstruc tured data currently lying idle in your data warehouse. Part of the reason why companies are earnestly contemplating the idea of becoming a digital enterprise is the opportunity to deliver an advanced

customer experience. Advancing upon digital transformation is just the start of a journey that eventually helps you become a digital enterprise.

The need for better productivity and performance is one of the reasons driving digital change forward. Recent research has also predicted the potential rise in business opportunities through AI. "In 2018, MGI estimated that an additional \$13 trillion could be added to global GDP by 2030 from today through digitization, automation, and AI as these technologies create major new business opportunities and productivity gains are reinvested in economies."

To become a digital enterprise is a sought after objective for most organizations because of the competitive advantages of gaining real-time insights. A digital enterprise can make decisions in the heat of a moment through the presence of real-time analytics, and much more. From product design to improving the customer experience, there is real-time data available for organizations to utilize and make decisions from.



Performance Benefits of Becoming a Digital Enterprise

As you might know, there are numerous performance benefits that arise out of becoming a digital enterprise. These benefits help assist your business in one way or the other, and enable your organization to perform at its full potential.

UNIFIED CUSTOMER EXPERIENCE

Artificial Intelligence helps you to give personalized and meaningful experiences to all customers across industries. The impact of personalized experiences generated through data and AI are felt in both B2C and B2B industries.

In Business to Customer (B2C) industries, customers are benefiting from hyper-personalized experiences. These experiences are generated as a result of personalized applications and targeted advertising. Customer profiling is done, and potent advertising strategies are developed on the basis of that profiling. B2C industries are also able to apply their knowledge of customers in customer support areas as well. Customer support agents identify the customer's profile and provide them with support in a manner that is best suited to their needs.

Al can work wonders in B2B as well, as here it identifies lead times and also helps in determining leads that will make prompt purchases, and what they want. Al can also determine what other businesses want through a history of their interactions and buying patterns.



BUSINESS TRANSFORMATION

Going digital allows you to completely transform your business for the better as you'll be in a position to generate innovation and push your organization forward in areas of strategic value. Data migration and cloud integration also helps create an ideal 'go virtual' sphere, and automates specific processes.



AUTOMATION

Carrying on from where we left in the previous point, automation is another amazing benefit of digital transformation. You can now automate low value tasks that are highly repetitive. This allows humans to apply their skills to more important and complicated tasks. The entire process can help you prioritize efficiency and optimize your production processes.

OPTIMIZED WORKFLOW

The basic idea behind digital transformation was to pair technology and people together to get the best possible outcomes. The resulting workflow optimization is due to the supportive role of AI empowered tools and technologies.

Organizations can coordinate their digital strategies across technological and human capabilities to obtain desired results from these assets and resources. Even organizations who are at early stages in digital transformation stand to gain from the benefits of optimized workflows due to pairing automation with human talent.

ADAPTABILITY

Markets are shifting and changing as a result of the digital revolution, and organizations are looking to adapt their business models as a result. All companies with digital aspirations are looking to broaden their horizons and seize new opportunities from a flexible digital business model. However, before you digitize your services and offer products -as-a-service or subscriptions through the digital network, it is necessary that you implement a more secure and flexible infrastructure than the legacy model you currently have.





Use Case: A Study of Intelligent Banking

Banking is one of the many sectors experiencing limitless growth because of digitalization. Some of the ways banks are currently using their core digital processes for growth are:



Developing strategies centered on customer engagement. Banks realize the importance of customer engagement and are building new strategies around this high-priority initiative.



Banks are looking for ways to optimize the customer experience by personalizing it. Personalization is achieved through an in-depth understanding of customers, achieved through a thorough analysis of customer-generated data.



Growing their capabilities to provide an end-to-end digital experience. Customers want as much convenience as they can get in this digital age, which is why banks have to provide an end-to-end digital experience.

A recent research suggested that 80% of all banks are highly aware of the potential benefits that AI can bring for them. The application of AI across the company can save banks billions of dollars through fraud detection and improvement in the customer experience.

Conclusion

Companies utilizing and implementing digital technologies are racing ahead of the competition. Building a synchronized digital enterprise helps you in optimizing efficiency and getting the best from your staff, technology, processes, and workflows. Additionally, you can also use real-time analysis to offer customization to all customers. This customization will eventually play a vital role in improving and bettering the customer experience.

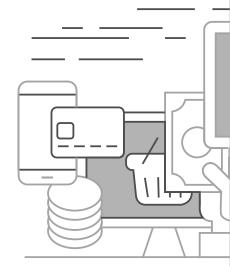
VIDEOS

Digitizing Customer Experience is the Norm Today:



HARMEEN MEHTA

Global Chief Information Officer, Airtel



Comviva's MobiLytix™ Suite A next generation, real-time marketing platform that enables monetization of micro-moments



RECENT AWARDS



Aegis Graham Bell Awards 2020

Comviva has been recognized for MobiLytix™ Real Time Marketing offering by Niti Aayog and Aegis Graham Bell Awards 2020 for the "Best Innovation in Consumer Tech" category as Runner-up.

ANALYST MENTIONS



A detailed case study on how Comviva helped Ooredoo Myanmar deliver low latency, high quality live FIFA world cup 2018 streaming through Ooredoo Myanmar's "My Ooredoo" app.



Comviv has been mentioned in "International Digital Money Transfer" report. This provides a detailed evaluation of the international digital money transfer market; identifying best practices for optimal service deployments. Comviva is placed among the leading vendors category in this report.

FORRESTER®

Comviva has been mentioned as one of the vendors in the Q1 2020 Now Tech: Customer Data Management Solutions report. Forrester defines it as an integrated platform that automates the ingestion, integration, transformation, and delivery of customer data from streaming and persisted sources, to deliver real-time, unified, and trusted multidimensional views of customers for personalization, analytics, and recommendations. Forrester's Now Tech report helps markets understand the value they can expect from a Channel Onboarding solution provider and to select vendors based on size and functionality. Comviva has been listed in the "Large Vendors' category alongside some of the key players in the market.

MAKING HEADLINES

Comviva, the global leader in mobility solutions, has announced its divestment of stake in TerraPay, for an undisclosed amount to a consortium of global investors. Read More...





About Comviva

Comviva is the global leader of mobile solutions catering to The Business of Tomorrows. The company is a subsidiary of Tech Mahindra and a part of the \$21 billion Mahindra Group. Its extensive portfolio of solutions spans digital financial services, customer value management, messaging and broadband solution and digital lifestyle services. It enables service providers to enhance customer experience, rationalize costs and accelerate revenue growth. Comviva's solutions are deployed by over 130 mobile service providers and financial institutions in over 95 countries and enrich the lives of over two billion people to deliver a better future.

For more information, please visit www.comviva.com

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