

DIGITAL TRANSFORMATION:

**A BRAVE NEW
WORLD**

Enterprise Messaging and
Grey Route Blocking
(A2P Monetization)

***TOWARDS
TOMORROWS***

Digital Transformation:

A BRAVE NEW WORLD

C O N T E N T S

ENTERPRISE MESSAGING

Setting the Context	04
Top Three Criteria while Consider the Enterprise Messaging Opportunity	06
Changes required to the Current Enterprise Messaging Model	07
Likely Future Roadmap	08
Technologies and Regulatory Policies Likely to Play a Key Role	08
Omni-Channel Management	09
Analytics, Dashboards and Reports	09
GDPR	10
Consequences of not Implementing these Changes	10

GREY ROUTE BLOCKING (A2P MONETIZATION)

Setting the context	11
Blocking Grey Routes is the Key to Sustainability of the A2P Messaging Ecosystem	12
Top Three challenges for Operators	12
Changes to Operator's Messaging Network Likely Help To Address the challenges	13
Likely Future Roadmap	13
Technologies and Business Changes Likely to Play a Key Role	14
Consequences of not Implementing this Change	14

INTRODUCTION

Messaging is new black in B2C interactions. They are interactive, intuitive and instantaneous. 90% of the messages are opened, and most of them are read within two minutes. Simply put, enterprises love messaging, as it is the key to their strategy to engage customers with contextual and personalized content. However, in order to make this happen, a lot of things have to come together, like interaction analytics, AI, policy and charging, locational services, which is one big hassle that enterprises simply don't want, and this addresses the why and where operators come into the picture. For operators, messaging is a timely opportunity to rise up in the value chain, especially with businesses showing keen interest in Rich Business to Communication services (RCS). Only time will tell whether RCS will become the industry standard, however one thing is for sure – interest in messaging refuses to die.

Setting the Context



90% of all SMS texts are read within 30 minutes of receiving them and have an open rate of **98%**

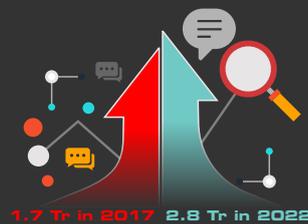
Market for commercial text messaging will be worth **\$58.5** billion by **2020** (Source, Mobile Squared)



Top A2P SMS message traffic by sector are:

Finance and Insurance **15%**
Application - Based Chat **12%**
Travel **10%**

Total A2P SMS messaging has increased from **1.7** trillion in **2017** to **2.8** trillion in **2022**



Average A2P SMS messages per subscription per month has increased from **18.2** in **2017** to **25.1** in **2022**

Average A2P SMS revenue per subscription per month is projected to increase from **\$0.13** in **2017** to **\$0.13** in **2022**



2017 Ovum report shows conclusively that enterprises are moving beyond an experimental phase with new messaging formats and are already **embracing channels that deliver deeper interactivity** such as chat bots and richer user experience delivered by messaging **built on the RCS standard**

In **2015**, **54%** of the enterprises were **using social media to communicate with their customers**, that number has now grown to **78%**



Enterprises are seeking more **interactive ways to communicate** with their audience, which explains the **growing popularity** of two **interactive messaging**

Ovum survey also indicated that **25%** of **enterprises are using chat bots to automate customer interactivity**



AI and automation is helping to provide chatbot type of experience with SMS

Top Three Criteria while Considering the Enterprise Messaging Opportunity

Self-onboarding of enterprises

Operators have a big role in helping the enterprise segment to use the messaging medium effectively for engaging their customers through a mix and match of various strategies facilitated through a single view of the customer and powered by analytics.

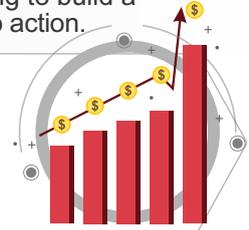


New Digital Channels and Use Cases for Enterprises for Mobile Engagement

In a sea of other messages and distractions, emails and SMSs are not sufficient anymore for businesses trying to reach out their customers, hoping to build a seamless customer journey from the customer's show of interest to action.

Revenue Increase – Additional Revenue Generation Models

Operators want to explore additional revenue generation models beyond bulk SMS and termination fees. One of the models is using hosted infrastructure provided by aggregators to reach out to the enterprise segment directly.



Changes required to the Current Enterprise Messaging Model



DIFFERENTIATED PRICING

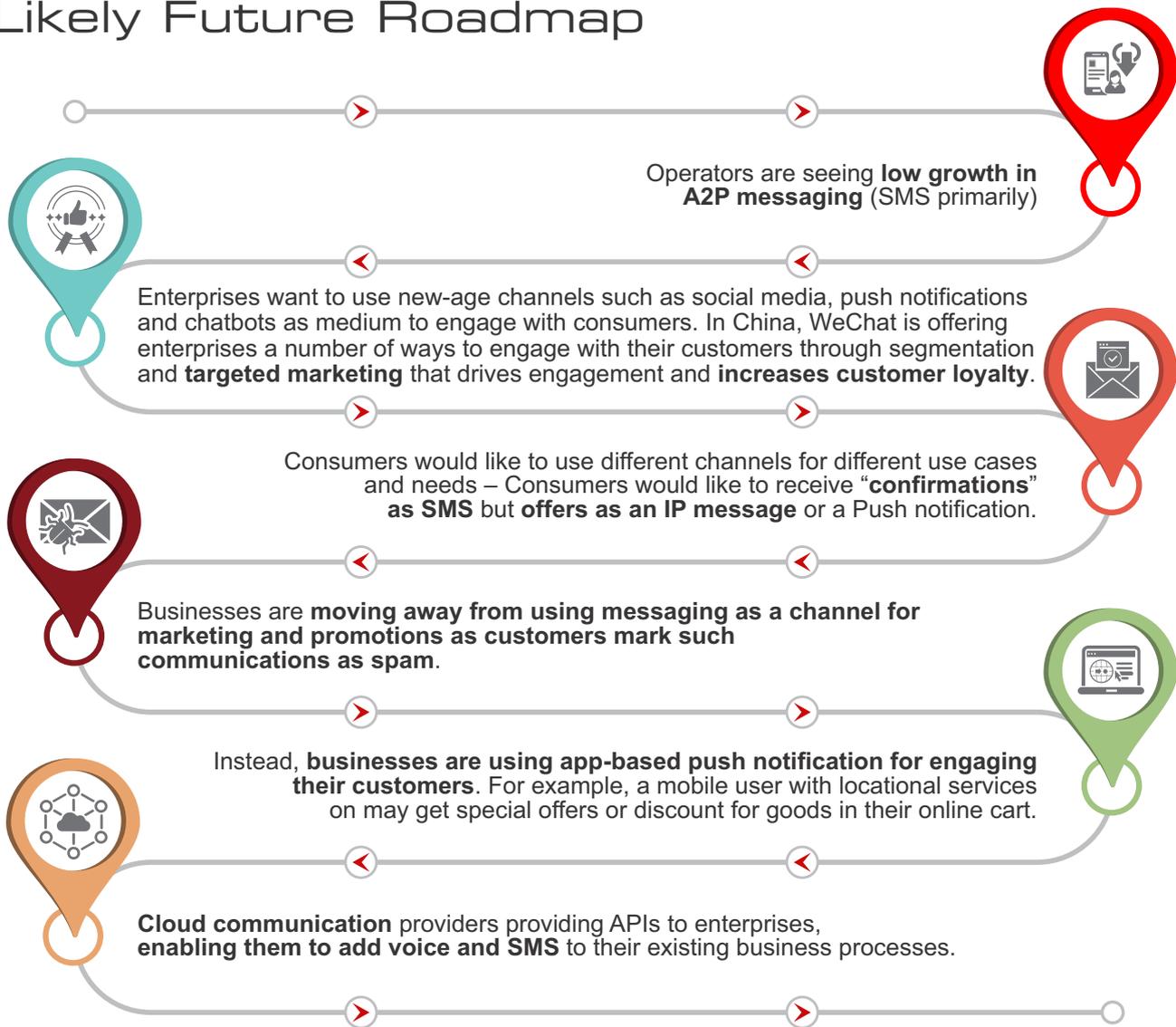
Telecom companies need to rethink their approach to fixing prices for message delivery. **Prices should reflect the value of the message for the enterprise.** For example, 2FA carries higher value, and hence enterprise should be charged a higher value for message delivery. **This will not only increase revenues but also optimize network resources.**

INCLUSION OF IP AND DIGITAL-BASED MESSAGING CHANNELS

Today **businesses have to consider multiple channels**, such as voice, SMS, chat, apps, push notifications, and email in their effort to chart out a meaning dialogue with their customers. With so many channels in place **business need a single view of their customer to shape omni-channel digital engagement.**



Likely Future Roadmap



Technologies and Regulatory Policies Likely to Play a Key Role

RCS Technology and Adoption by Telecom Companies

In February, this year, Google announced that **Rich Business to Consumer (RCS) messaging experience is now available to Android users**. In Google's own words “Today companies across food, travel, retail and delivery services in the U.S. and Mexico are starting to have better conversations with their customers using RCS as part of our Early Access Program.

With RCS, businesses can send more useful and interactive messages to their customers. This means, for example, that a **retailer can send beautiful images of their products**, rather than a text message, and even **let the customer select and buy something, all without leaving the messaging app.** RCS will use Messages, which is the default SMS app for Android users.

Omni-Channel Management

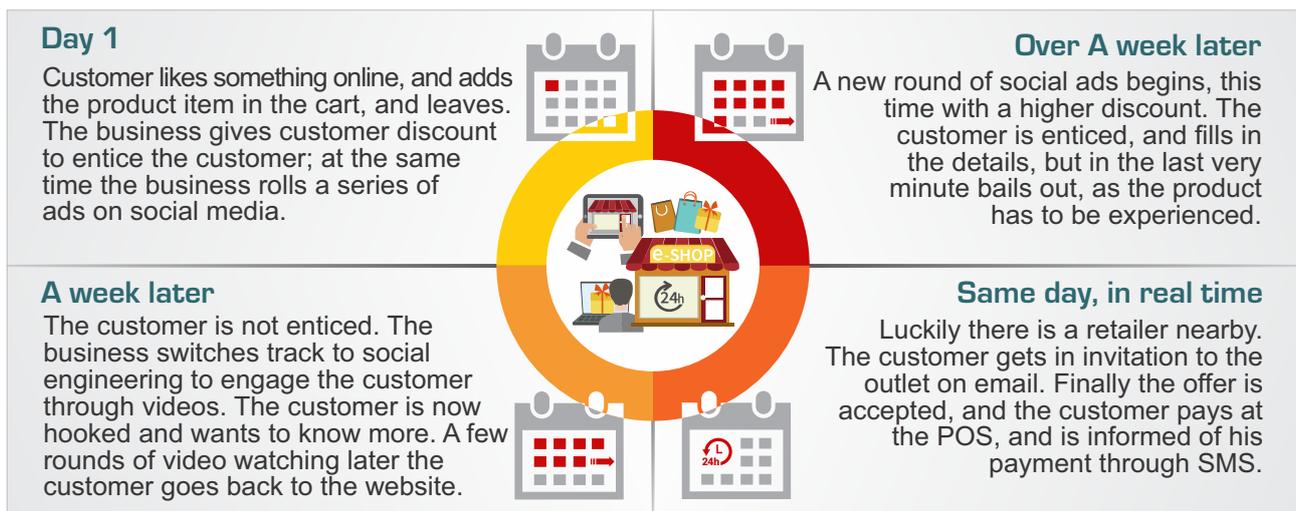
According to Frost & Sullivan, omni-channel is defined as “seamless and effortless, high quality customer experiences that occur within and between contact channels.”

Tommy Walker, in Omni-Channel Retailing defines it as “It’s about **allowing customers to purchase wherever they are** while communicating in a way that is in tune with why they use a given channel and showing awareness of their individual stage in the customer lifecycle”

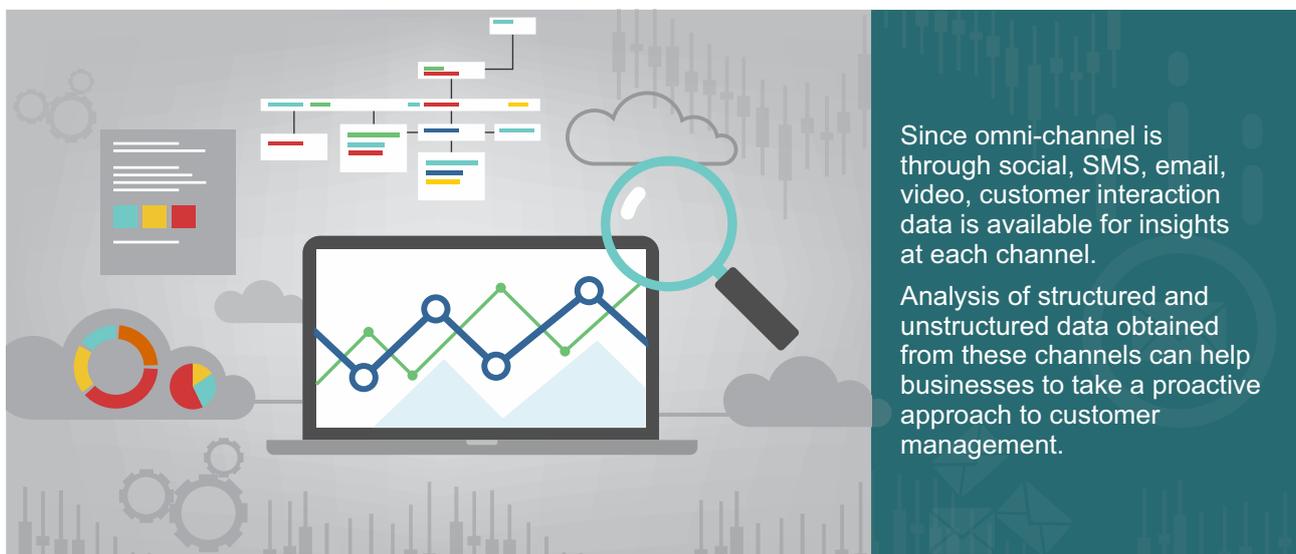
Omni channel will provide a single view of the customer with the convergence of various channels of engagement like onsite, social, mobile, email, physical as well as instant messaging.

It combines various messaging mediums like SMS, email, Facebook, YouTube, social engineering and analytics to provide customers with personalized products and messages every step of the way.

A day (or week) in the life of a customer in an omni-channel environment



Analytics, Dashboards and Reports

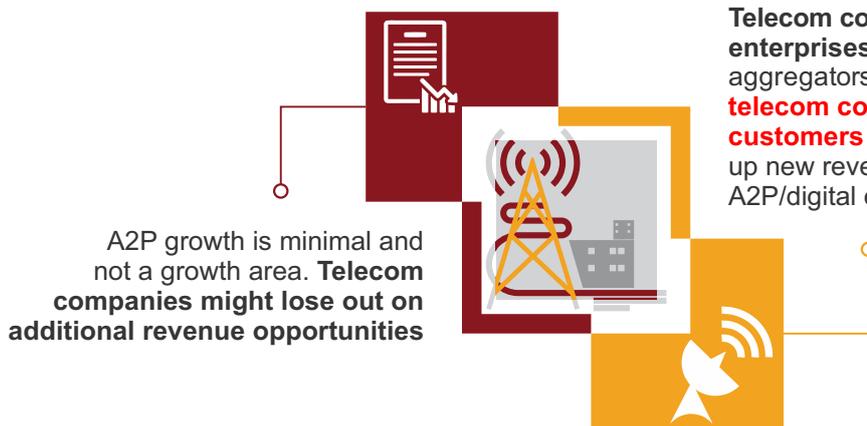


GDPR



GDPR is expected to impact how the customer receives marketing messages from enterprise in the future. **Businesses will have to share details to their customers as to who is collecting their data and for what purposes.** Customers must be given the right to opt out of such arrangement if required. **GDPR has empowered the customer by giving them the full right to their data.** It imposes heavy fines on enterprises for data infringement. Given that enterprise messaging is based on user personas, GDPR will impact the industry for sure. Businesses must have consent from customers before using their data. Businesses must inform users about security breach affecting their data. **The customers must have the right to erase the data maintained by businesses.** GDPR gives customers access to data collected and they have the right to give the collected data to any other company. It also gives customers the right to opt out of if they choose to.

Consequences of Not Implementing these Changes



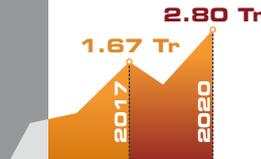
A2P growth is minimal and not a growth area. **Telecom companies might lose out on additional revenue opportunities**

Telecom companies do not currently serve enterprises directly. They go through aggregators. **With the new implementation, telecom companies can get enterprise customers directly** which will also open up new revenue streams besides A2P/digital engagement



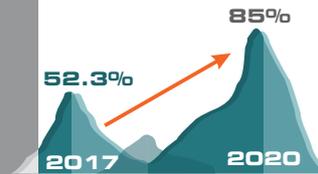
Setting the context

1.67 trillion A2P SMS messages were sent worldwide in 2017 with the volume set to rise to 2.80 trillion by 2020



On an average 18.2 A2P SMS messages were received per subscription in 2017 which is projected to rise to 25.2 SMS messages per subscription in 2022

White route messaging surpassed grey route traffic in 2017 accounting for 52.3% of the total traffic and is projected to account for 85% of the traffic by 2020



Finance and insurance accounted for 15% of the total global traffic – equivalent of 251.35 billion messages



Source - mobileSQUARED forecasts

28% of SMS users receive an un-solicited message everyday



26% of WhatsApp and Facebook users receive spam everyday

Mobile first economies are more vulnerable to spam: South Africa and Nigeria have a daily spam count of 73% and 76% respectively



33% of mobile users have received SMSishing messages



SMSishing is prevalent in growth markets of Brazil, China, South Africa, Nigeria



SMS is the most trusted channel followed by messaging applications and social media



Source Mobile Messaging Fraud Report 2016

Blocking Grey Routes is the Key to Sustainability of the A2P Messaging Ecosystem

SMS continues to be a trusted channel for businesses and customers alike because of its simplicity, high open rates, and global reach.

The commercial **usage of SMS has grown exponentially** as businesses scramble to provide contextually rich and highly personalized services to their customers through A2P services. Almost every industry vertical is using A2P messaging in one form or the other. In financial services, A2P is being used for account updates, transaction alerts; in tourism, SMS is providing information on booking

and flight arrivals and departure; in media and entertainment we have SMS based weather updates, sport scores, surveys and voting. Unlike P2P messaging, A2P messaging comes with a termination fee. SMS aggregators may try to circumvent termination fees by taking to grey routes, which runs into billions of dollars in losses for the operators. This may also lead to an interesting situation where the same SMS route is used by the enterprise and their spammers. Thus grey routes are not just a matter of concern for operators but also for enterprises, who have their reputation to manage.

Top Three challenges for Operators



Loss of Revenue through Grey Routes

There is a strong case for SMS in today's context where **customer engagement is becoming the magic word to customer retention** and more rewards for the business. This has **resulted in an explosion** in the adoption of **SMS** as a medium of choice for sending one-time passwords (OTPs), two-factor authentications (2FA), transaction alerts, promotional marketing messages, and delivery confirmations, to name a few. However, **operators are losing out on this A2P revenue to entities using Grey routes.** According to Mobile Squared A2P revenues losses are projected upwards of \$82 billion in the period 2015 -2020. Even though the situation improved in 2017, there is still a lot of money left on the table due to grey routes.



Network protection from SMS Flooding or Spoofing

A credit card company, based in Bradford, employed third party affiliates to send one million messages to mobile users, who had not consented to receive any promotional messages from the company. **Un-solicited messages** like these, **lead to network congestion, which means that legitimate traffic is delayed or not allowed to pass.**



Subscriber Trust by Blocking Spam, Illegal Content

Scammers are resorting social engineering to **get access to consumer details.** Scams of these types feed into the victims feeling of humiliation, fear, guilt to get the desired action. SMSishing scam comes from SMS encouraging the recipient to click on a link or divulge some personal information that can be used against them. For example, in the Sophie SMS scam would be something like this "Hi, I got your number from Zoe, are you single. Check out my profile Link" or, one could be fooled by a SMS messaging spoofing Woolworth: "Congratulations! Claim your \$500 voucher giveaway: link" In either case, the aim of the conversation is to engineer the recipient to click on the link" Over a time period the **recipient of the message loses trust in SMS leading to losses to the operator as well as the enterprise.**

Changes to Operator's Messaging Network Likely Help To Address the challenges

- Installation of an **A2P monetization and revenue assurance platform** instead of a plain signaling firewall.

These platforms **allow operators to identify SMS spam or SMS that originates from grey routes or SIM farms, shutting them down immediately.** The visibility of grey routes and SIM fraud enables the operator to contact the operator and recoup the cost of using their services. The enterprise may end up paying a higher price, but they get better services in turn.

- Dedicated operations team either by the operator or by the vendor to ensure better A2P monetization.



Likely Future Roadmap



Operators have started **realizing the importance of A2P revenue loss.** In 2017, just **6% of mobile operators** had **deployed an SS7 firewall.** By the end of **2018, 61% of the mobile operators** would have **deployed an SMS firewall.**

Many vendors have realized that the operations part of grey route blocking is manually intensive. In manual operations, the vendor has to apply a complex set of rules to identify aberrations in SMS traffic. Most of the times these rules become ineffective, as new techniques emerge. Moreover, rules based mechanisms are prone to error, like false positives that may lead to blocking of legit traffic. In order to tackle these problems, **Vendors are moving to create automated / machine learning based solutions** classifying traffic on the basis of learned behavior.

Technologies and Business Changes Likely to Play a Key Role

Fraud

The **A2P Market will rise to 2.8 trillion by 2020**, fuelled by the growing demand of A2P messaging, such as 2FA in financial services, **leading to a market worth of more than \$26 billion**. While the promise of growth in A2P is real for the operators, so is the **rising threat of spam and phishing to the subscribers**. 28% of SMS users receive an un-solicited message daily. 26% of WhatsApp and Facebook users receive spam daily. Mobile first economies are more vulnerable to spam: South Africa and Nigeria have a daily spam count of 73% and 76% respectively. 33% of mobile users have received SMSishing messages. SMSishing is prevalent in growth markets of Brazil, China, South Africa, Nigeria

Machine Learning

Advanced machine learning algorithms” to identify the content and origin of messages and sort messages into categories to help decide which ones are more important. In such a market scenario, **a differential pricing strategy will help in optimally monetizing existing Network resources** and Infrastructure, as it will treat each message separately on the basis of the value it holds to the end user and resources utilized on an operator’s infrastructure. By replacing rules based processes with machine learning algorithms; it will be possible to **increase the scope of spam filtering** even further, without increasing false positives.

Consequences of not Implementing this Change

A2P fraud will continue to **impact on normal A2P Messaging**. **Operator will lose out on A2P revenues since more and more enterprises / aggregators will choose the grey route options.**







Mahindra COMVIVA

THE BUSINESS OF TOMORROWS

Mahindra Comviva

A-26, Info City, Sector 34, Gurgaon-122001, Haryana, India

Tel: +91 124 481 9000, Fax: +91 124 481 9777

Web: www.mahindracomviva.com

Blog: blog.mahindracomviva.com

FOLLOW US ON

