



# FUTURE-FIT YOUR LEGACY MESSAGING FOR GROWTH

and prepare for the next wave of messaging  
revenue with rich communication services



**2002**  
Interop Technologies Founded

**2003**  
SMSC/MMSC  
OTA Provisioning

**2004**  
SMS Profitability Grows

**2006**  
CSCGW Increases  
Messaging Value

**2007**  
New SMSC Architecture Achieves  
2X Industry Throughput Level  
RCS Solution Begins Development

**2008**  
SMSC Throughput Doubles  
Industry Standard Again

**2010**  
Sets World Record with  
100,000 MDAs

**2011**  
Messaging Personalization  
and Control Suite

**2012**  
Integrates SMS, MMS  
& RCS Functionality

Mobile Alert Messaging  
Increases Safety  
Patents pre-IMS RCS

**2016**  
Receives Innovation Award for  
Virtualized Core Solution

**2015**  
Complete IP Communications:  
IMS, VoLTE & RCS  
Enterprise Messaging  
Platform for Businesses

**2017**  
First to integrate GSMA Universal  
Profile for RCS  
Receives Advanced Communications  
Award for RCS  
eWEA for LTE Networks

**2018**  
RCS Solution Receives  
Triple Accreditation  
from GSMA

**2019**  
Achieves World's First GSMA  
UP 2.0 A2P RCS Accreditation

**2020**  
Wins Juniper Research Award for Best RCS Provider

# WHAT INTEROP CAN DO FOR YOU.

## ■ The Leaders In Messaging

Interop Technologies has been a leader in mobile messaging for nearly 20 years. Starting from our days of record breaking SMSC performance, to being the most accredited and most awarded RCS vendor today.

We have delivered reliable, scalable and flexible solutions to global companies large and small and take pride in helping our operators maximize savings while increasing their bottom line. Our approach is simple, we care and we find you a better way forward.

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## INTRODUCTION

The mobile industry's relentless movement towards lightning-fast 5G networks and the ever-advancing communication preferences of the hyper-digitalized subscriber has strained the traditional mobile operator business model. Today operators are faced with the dilemma of supporting a variety of communication services while simultaneously implementing new technologies and prolonging the life of their crucial legacy systems. On top of that, they need to reduce their costs and work on growing new revenue as margins from traditional service models continue to contract. It's no wonder that operators today are finding it hard to keep up.

Operators need to begin finding ways to future-fit their entire network in order to position themselves to continually innovate with new services and survive the next wave of transformation. This will further help operators consolidate infrastructure and avail the savings to launch the feature-rich IP services they need in order to capitalize on their initial network investment, and ultimately get ahead of the massive 5G spends that awaits them.



**Operators need to position themselves to continually innovate with new services or face technical irrelevancy in today's marketplace.**



# THE VALUE OF MESSAGING

During the last decade, messaging has transformed how we exchange information, how we communicate with friends and family, and even how we do business. Although there are a variety of communication channels available in the market today, statistics continually show that messaging is the world's most preferred method of digital communication. Which is why we see some form of modern messaging technology incorporated into almost every mainstream website and app in the market today.

Messaging is a broad term however, made up of leading OTT and social messaging apps, as well as operator-led text messaging and website chat interfaces. While these new messaging channels have indeed impacted SMS usage, the text message still has the ability to reach more than 5 billion unique mobile subscribers globally because of its carrier-native delivery. When compared to fragmented messaging apps, it's easy to understand why SMS technology still plays a significant role in today's messaging landscape and should be key to operators 5G network planning. This is because it is simple and universal, carrying an unmatched 98% open rate and the ability to reach 99.99% of mobile handsets globally.

As mobile technology has continued to advance, so have consumer's usage habits. Today, more than half of 18-34 year olds and 18-24 year olds prefer to use a messaging service or chatbot, versus using a phone call when contacting a business. The adoption of business messaging has certainly come a long way and yet SMS is still considered the preferred A2P delivery vehicle for many enterprises.

A new study from Juniper Research forecasts that total operator revenues from A2P messaging services will reach \$62 billion by 2023, up from an estimated \$43 billion in 2019. The study also highlighted that revenue growth will be driven by operator efforts in alleviating messaging fraud over grey routes. Interop Technologies assists operators in combating grey route traffic fraud, while enabling legitimate 10DLC support through operator content management platforms such as a CSC Gateway. All of this focus on message security demonstrates the value and importance that messaging brings to every facet of our lives.

of subscribers  
don't want to  
download another  
messaging app<sup>1</sup>

**67%**

of smartphone  
owners use  
messaging

**97%**

# THE OPERATOR OPPORTUNITY

The proliferation of OTT messaging has been slowly deteriorating both subscriber loyalty and operator revenue and as interoperability improves for OTT messaging, operators will continue to face a substantial threat to their business. In order to challenge the OTT messaging market and bring subscribers back to the native messaging channel, mobile operators must first recognize why subscribers were drawn to using these services in the first place.

During the last two decades, there has been a considerable shift in how subscribers like to communicate and consume information. Subscribers are using messaging apps because of the enhanced features they provide. Now that subscribers have grown accustomed to these features, it is almost certain they will continue to choose these messaging services over less feature-rich options if left untouched by operators. While operators have the intricacies of running an entire communications network, as well as messaging, OTT players offer their services over the top of the operators' networks with quicker innovation and with little or no revenue potential for the operator, until now.

Operators now have the opportunity to rise above these challenges with RCS which combines the best features of OTT messaging with the reach, simplicity, and ubiquity of SMS with additional revenue potential.

RCS incorporates market-leading features such as individual and group chat, image, file and video sharing, emojis, stickers and real-time status for messages that are sent, delivered and read. Backed by the GSMA, the RCS initiative has gained traction worldwide with 90 operator launches in 70 countries and leading handset vendors such as LG,



Samsung, and Google all supporting the global effort<sup>2</sup>. RCS adoption rates are expected to continue to soar according to research analysts at Mobilesquared predicting more than 450 mobile operators will have RCS running by 2023<sup>3</sup>.

As a carrier-based service, mobile operators who launch RCS will not only be able to provide subscribers with superior messaging, they can also use the enhanced features of RCS to foster customer engagement and use RCS as a platform to grow their monetization opportunities with businesses and brands. It's a win-win situation!

The key to realizing the RCS opportunity is widespread adoption by mobile operators and their commitment to foster subscriber adoption to ensure it has the same reach and ubiquity as SMS does today. Future substantial revenue opportunities from the RCS-driven ecosystem will also be in jeopardy if operators do not innovate and enhance their native messaging experience sooner rather than later.

According to Mobilesquared's Chief Data Analyst, Gavin Patterson: "The arrival of RCS will grow the overall, operator driven A2P messaging business from a total of US\$22.27 billion in 2022 (totally on SMS), to US\$27.28 billion – and with A2P RCS still only contributing 22.3% of that total<sup>4</sup>."

As RCS gains momentum among subscribers, operators will need to reduce the management and maintenance burden of their legacy messaging systems to free up the engineering and capital resources that will be needed to procure the infrastructure needed to innovate with RCS. This will help facilitate the launch of new revenue generating services that have quickly become a critical prerequisite for operator's competitive future.



**Mobile operator revenues set to grow by transferring from A2P SMS to A2P RCS, with every US \$1 earned from A2P SMS in 2022 equating to US \$5.67 earned from A2P RCS<sup>5</sup>**



# VIRTUALIZATION IS THE FUTURE

Offering benefits of higher data speeds, greater cost effectiveness relative to existing networks and optimal usage of available spectrum, the quicker operators can virtualize large portions of their networks the better off they'll be. Mobile data traffic growth was the primary driver of 4G, but the throughput enhancements and low latency offered by 5G network technologies will also create opportunities for operators to innovate and introduce new services that appeal to more lucrative verticals from enterprises, brands and M2M market sectors.

With an IMS core at the center of these new IP services, operators should look at modernizing the portions of their network that aren't IMS dependent. A good place to start is with legacy messaging services, like SMS and MMS, that may be approaching end-of-life from a hardware standpoint, but not in their usefulness moving forward. Migrating these existing messaging services into the cloud realizes a significant cost savings when several legacy network components can be future-fitted through virtualization and then outsourced and managed-as-a-service.

Operators looking to futurize their legacy equipment should evaluate a virtualized managed service deployment to achieve the most benefit and relieve the most burdens. Interop Technologies' world-class architecture enables easy integration when an operator's business needs require a different network strategy in order to stay technically relevant. Selecting a hosted deployment can increase an operator's existing capacity and ease human resource constraints—without additional capital expenditures that will surely be required to advance more lofty network spending initiatives like complete SDN/NFV/Automation overhaul and related 5G infrastructure procurement. Interop's seasoned engineers manage the technology based on knowledge gained by designing, building and running our own solutions in our own data center; and as a result, operators receive reliable support and can solve capacity problems without staffing up.

## Key Benefits of Virtualization

### ☁ NETWORK CONSOLIDATION

With virtualization comes the ability to consolidate network infrastructure and as a result, the cost of maintenance and management is reduced significantly. Less physical hardware also means a smaller carbon footprint.

### ☁ RESOURCE OPTIMIZATION

By virtualizing legacy hardware and reassigning portions of it based on your current business needs, the available computing power, capacity and network bandwidth become more efficient and future focused.

### ☁ SCALABILITY & AGILITY

Legacy infrastructure constraints can be a major barrier for growth, while virtualization enables operators to instantly scale up or down depending on traffic volume and provides the agility needed to quickly launch new services.

### ☁ INVESTMENT PROTECTION

Hardware eventually becomes obsolete, so virtualization is a wise investment in continuing to offer legacy services. This gives operators time to adapt to new processes without worrying about end-of-life hardware or support issues.



# MESSAGING AS A SERVICE

When launching next-generation messaging and RCS services, operators need their integral SMS infrastructure to continue to meet their legacy messaging and crucial network functionality needs, but with less involvement and costs. This is why Interop Technologies offers Messaging as a Service (MaaS) to assist operators in virtualizing and managing their legacy messaging services. The MaaS offering can bridge the gap between SS7-based and IP messaging platforms, enabling operators' networks to evolve as technology dictates. By supporting all-generations and all types of network delivery simultaneously, it enables the interworking of next-gen and legacy-messaging methodologies across multiple legacy messaging services like WEA, SMS, MMS, CSC, etc. It combines the past, present and future of operator messaging into a single, all-generation, managed platform, that is delivered to operators as a service to reduce ongoing management costs and resource strains.

Interop Technologies' powerful and ultra-reliable SMSC is at the center of the MaaS offering. It offers unrivaled performance and flexibility that enables it to perform tasks that usually require a large number of SMSCs. For larger operators running a sizable SMS network, this can enormously simplify their existing infrastructure with the ability to place a large number of network components in the cloud. Smaller operators can benefit from unparalleled technical advantages of the Interop SMSC, which can easily scale to meet their current and future capacity needs.

Among the tasks that can challenge operators looking to migrate their messaging networks comprised of several SMSCs and related legacy



**Your current legacy software may not function correctly in a virtualized environment, so it's important to find the right expertise and support to ensure a smooth transition.**



components, is the collection of statistical data. Operators must collect data for each separate SMS element and correlate it as effectively as possible. The powerful centralized reporting capabilities of the Interop SMSC within the MaaS offering enables the collection of valuable performance KPIs in a single step since our engineers are running the solutions (they built) for you.

Routing is another vital task that requires planning, monitoring, and tuning at different points of the network. With a future-fitted and more simplified MaaS network, operators can more efficiently monitor traffic and performance and leave system management to our experts.

An additional challenge of a multi-component legacy SMS network is the troubleshooting. If your SMSC is nearing its end-of-life, some issues may not be a routine fix, or they may not have a fix at all. Pinpointing the specific network element that is causing an issue can be difficult, tedious, and time consuming, often requiring the assistance of costly network engineers, technicians, and paid third party support. The MaaS solution can deliver all of the functionality otherwise handled by multiple components that can greatly simplify troubleshooting. The result is fewer network issues, greater customer satisfaction, and lower support costs with no end-of-life risk looming.

Centralized filtering and spam controls in a single connection point rather than multiple network elements are another benefit of a

virtualized messaging network. Centralized control monitored from the cloud provides operators with fewer entry points for attacks, resulting in improved response times if attacks occur and an increase in overall customer satisfaction.

Interop's MaaS offering will also result in dramatic savings with regard to power consumption. By using advanced cloud technologies found in NFV/SDN executions, your legacy-messaging network becomes an energy efficient, "green" portion of your network with a smaller footprint and greater processing power than many legacy systems in use today.

Available MaaS network components offered are SMSC/MMSC, Wireless Emergency Alerts (WEA), SMS A2P Campaign Management (CSC), SMPP Gateway, IP Messaging Gateway and a suite of management tools and reports. Operators can deploy as many or as few of the multiple MaaS components offered based on their specific network configuration to match business needs and maximize savings. For added assurance, the MaaS solution is fully geo-redundant, which is essential for a core operator service like messaging.



# FRictionless MIGRATION

Operators updating legacy equipment are often concerned about the impact it will have on day-to-day operations. The level of resources required to manage the migration can also be a concern. With skilled project management and implementation teams, Interop Technologies provides the support operators need to minimize required resources and disruption. The entire implementation team has the experience needed to ensure these tasks are completed efficiently. Interop Technologies has successfully integrated with systems from some of the world's largest billing vendors, and we work with all major inter-carrier and content providers. Once the steps are complete, the migration process can take place in accordance with the operator's timetable. An outline of a phased MaaS migration strategy is provided to each operator to minimally impact their current network operations. The overriding goal is to mitigate as much risk as possible during the migration process, building confidence in the platform and Interop Technologies.

Having completed messaging deployments throughout the world for nearly 20 years, our highly trained and experienced implementation engineers can ensure a smooth migration from installed hardware to the cloud, and from legacy to next generation technologies throughout each phase.

## Key MaaS Benefits

- Eliminates end-of-life risks for a sizable portion of your network
- Frees up operational and engineering resources for new initiatives
- Reduces OPEX for legacy services that are still required, and productive
- Prepares a seamless path to deploy new messaging technologies

## Key Expertise

- Two decades of delivering cloud-hosted operator messaging
- Engineers who built the solutions, also manage the service
- Geo-diverse and redundant network operation centers
- 24/7/365 customer service and multi-lingual support

# MESSAGING AS A PLATFORM

With future messaging technology planning built into the MaaS offering, operators can easily evolve their messaging to their 4G/5G IP/IMS network when ready and turn their messaging into a powerful new platform by launching Interop Technologies' award-winning RCS Suite. Rich Communications Services not only improves the subscriber P2P communication experience, but also creates new revenue streams through RCS Business Messaging (RBM) and the developing Messaging as a Platform (MaaS) ecosystem. Interop's RCS solution is a stand-alone service that easily integrates with the MaaS solution for seamless SMS/MMS fallback.



## Key MaaS Benefits of RCS

- APIs open RCS features for branded development
- Worldwide access, interoperability and reach with connection to the RCS Interconnect and A2P Hubs
- Brands pay operators for access to mobile subscribers
- Brand loyalty and customer satisfaction increases
- New revenue stream opportunities become infinite
- Unlimited use cases across different industries



**Operators need their integral SMS infrastructure to continue to meet their legacy messaging and crucial network functionality needs, but with less involvement and costs.**



## **CONCLUSION**

Operators are planning their 5G network strategies now and they will need powerful, reliable and scalable platforms that support their subscribers as they transition from legacy messaging in order to prepare for and realize the revenue potential of RCS and the new, ever-growing MaaP economy. When antiquated SMSCs don't provide the foundation needed to successfully evolve, operators can look to Interop Technologies for a solution that supports the deployment of next-gen technologies to grow revenue, while maintaining seamless operation of legacy network functionality way into the future.

Interop's MaaS offering provides an efficient, proven solution at a cost that is often the same as or less than the software support and maintenance costs associated with outdated, inefficient messaging platforms. Our highly skilled project management, implementation, and technical support teams can lead operators through the migration process to simplify and future-fit their SMS/MMS messaging with minimal disruption. Interop Technologies designs, builds, and manages all of its core solutions to both prepare operators for the future of mobile communications and enable them to offer the in-demand services subscribers want today, for continued growth tomorrow.



## GLOSSARY OF TERMS

### A2P - APPLICATION TO PERSON

the process of sending mobile messages from an application to a mobile subscriber

### CSC GATEWAY - COMMON SHORT CODE GATEWAY

an SMS A2P campaign management engine that uses 5, 6 & 10 digit numbers to enable businesses to send large groups of messages for marketing purposes

### 10DLC - 10 DIGIT LONG CODE

a standard 10-digit phone number that enables businesses to transmit SMS/A2P messages intended for 1 to 1 marketing communications

### IP - INTERNET PROTOCOL

the principal communications protocol in the Internet protocol suite for relaying datagrams across network boundaries

### IP-SM-GW - IP SHORT MESSAGING GATEWAY

a network component responsible for bridging the gap between legacy and ip messaging protocols

### M2M - MACHINE TO MACHINE

direct communication between devices using any communications channel, including wired and wireless

### MAAP - MESSAGING AS A PLATFORM

the act of using an rcs platform for monetizable uses other than personal communications

### MAAS - MESSAGING AS A SERVICE

using the cloud to deliver messaging network infrastructure with complete platform management

### MMS - MULTIMEDIA MESSAGING SERVICE

a standard way to send messages that include multimedia content to and from a mobile phone over a cellular network

### MMSC - MULTIMEDIA MESSAGING SERVICE CENTER

a network element in the mobile telephone network. Its purpose is to store, forward, convert and deliver Multimedia Message Service (MMS) messages

### OPEX - OPERATING EXPENSES

an ongoing cost for running a product, business, or system

### OTT - OVER-THE-TOP

providing Telco services over the top of the telecom network

### P2P - PERSON TO PERSON

the process of sending mobile messages from one mobile subscriber to another mobile subscriber

### RCS - RICH COMMUNICATION SERVICES

a communication protocol between mobile telephone carriers and between phone and carrier, aiming at replacing SMS messages with a text-message system that provides richer features and capabilities

### SMPP - SHORT MESSAGE PEER-TO-PEER

a protocol used by the telecommunications industry for exchanging SMS messages over the internet, mainly between SMSC's. The protocol is a level-7 TCP/IP protocol, which allows fast delivery of SMS messages

### SMS - SHORT MESSAGING SERVICE

a text messaging service component of most telephone, Internet, and mobile device systems. It uses standardized communication protocols to enable mobile devices to exchange short text messages

### SMSC - SHORT MESSAGING SERVICE CENTER

a network element in the mobile telephone network. Its purpose is to store, forward, convert and deliver Short Message Service (SMS) messages

### WEA - WIRELESS EMERGENCY ALERTS

a public safety system that enables mobile subscribers who own compatible mobile devices to receive geographically targeted, text-like messages alerting them of imminent threats to safety in their area

<sup>1</sup> mGage The Mobile Messaging, State of Mind report

<sup>2</sup> GSMA, RCS Global Launches: [www.gsma.com/futurenetworks/rcs/global-launches/](http://www.gsma.com/futurenetworks/rcs/global-launches/)

<sup>3</sup> Mobilesquad, Global RCS Business Messaging Forecasts By Operator, Country, Region & Os (2018-2024) Databook

<sup>4/5</sup> Mobilesquared – Article: Operators transfer to RCS for Fast Revenue Growth



Your better way forward ↗

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