

# **RICH COMMUNICATION SERVICES**

THE OPERATOR 5G  
MESSAGING SOLUTION

Your better way forward ↗

# WHAT WE CAN DO FOR YOU.

## ■ Leaders In Messaging

At Interop Technologies, we believe there is a better way to build and manage solutions for mobile operators. We are passionate about this, and it's our mission to help all operators innovate and move their business forward with the highest level of service flexibility.

Our long history developing core-messaging technologies for mobile operators has provided a strong foundation for Interop's leadership in RCS technology. Besides having one of the first and longest held GSMA Universal Profile (UP) accreditations for an RCS solution, Interop's continued development and dedication to mobile messaging has positioned the company as one of the world's most accredited RCS solution providers. After the release of the UP 1.0 and 2.0 standards, Interop also became the most requested testing and accrediting network solution partner for the industry's largest device manufacturers and client/OS developers.

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## INTRODUCTION

With the rapid advancement of communication technologies, mobile networks evolved quickly from the 2G to the 4G era. Mobile operators today are busy preparing for the 5G era which is set to transform digital communications in nearly every industry.

For mobile network operators, the 5G era introduces a much-needed global messaging transformation. To put it simply, the features of Short Messaging Service (SMS) can no longer meet the growing communication trends of subscribers and businesses. As new communication/messaging technologies and global market entrants have emerged over the last two decades, mobile operators have also been under immense pressure to find new ways to compete in the market and generate new revenue. Rich Communication Services (RCS), the official 5G messaging service, addresses these challenges and provides a platform for future innovation.

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RCS is the mobile operator's last chance to take back messaging during this transformative time in the mobile industry.

— Interop Technologies

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# OVER-THE-TOP COMPETITION

## ■ The Challenge

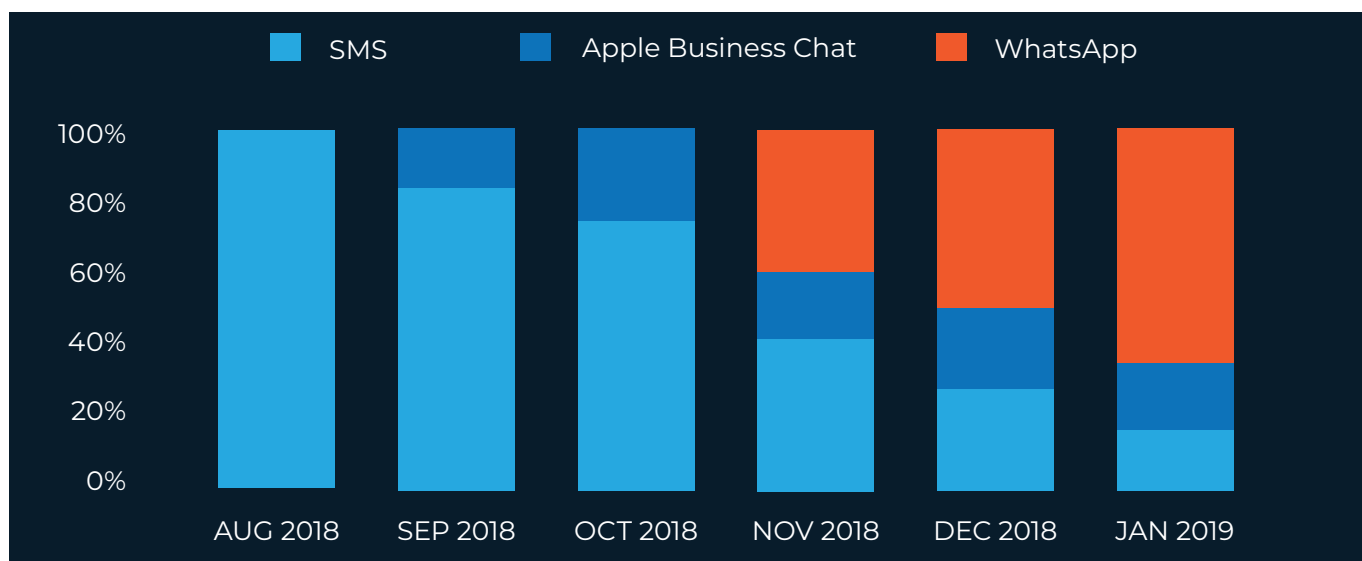
It's no secret that operator-based messaging and voice services have been disrupted by the emergence of OTT service providers (WhatsApp, WeChat, Viber, Facebook Messenger, etc.) that operate over the internet and bypass the mobile operator's network. One of the key reasons that subscribers have migrated from SMS messaging to OTT messaging is that it's more affordable (often free) and offers more advanced features and a better user experience. The onset of these new features and capabilities has collectively removed P2P SMS as the top channel for messaging with friends and family.

The good news is that OTT messaging capabilities only work within proprietary applications, meaning that users of these services can only communicate with people who are using the same application. This is good news for mobile operators, as these siloes inhibit the ability for OTT messaging to achieve the same ubiquitous reach of SMS.

## ■ Eroding A2P Revenue

While the variety of OTT service providers may have temporarily displaced carrier P2P messaging as the favorite slot for subscribers, an even bigger threat is their erosion of A2P revenue for operators.

WhatsApp Business experienced an exponential increase in users during the COVID-19 pandemic, with over \$473 million worth of spend on A2P SMS in 2020 expected to migrate over to the WhatsAppBusiness App<sup>1</sup>, so operators must compete with feature parity provided by RCS to retrain subscriber habits and retain A2P revenues moving forward.



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The Universal Profile makes this acceleration and take-up by end users a much simpler exercise for operators, simplifying the evolution of SMS and voice. It opens up that whole new realm of revenue possibilities, but operators must think forward, accelerate their messaging strategies now or risk missing out on those new revenues.

— GSMA, Network 2020

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## ■ Is Google's RCS, RCS?

After spending close to a decade trying to launch new messaging apps and failing repeatedly, Google announced in the spring of 2018 that it would be launching “Chat” based on a GSMA standard called the RCS Universal Profile (UP). These new features would be automatically available within the Android OS’s default messaging app. At the time, the company acknowledged that the RCS standard was an operator-based service and that they were spearheading its development through Android to ensure that all operator messaging services on Android devices would be interoperable with other native operator RCS services as the standard specified. There were several mobile operators and industry leaders at the time who supported Google’s involvement as a way to gain widespread RCS adoption quickly.

Fast forward to mid-2020 and Google takes an aggressive shift in their strategy – to no longer support integration of Android Messages with operator-owned messaging infrastructure. Instead, Google is enabling RCS messaging on all Android Messages clients with a Google controlled backend. This move completely removes interoperability and prevents operators from having control of these subscribers and over time would allow Google to gain further control over the P2P/A2P revenues operators derive from enhanced subscriber messaging. Google has already secured 34 OEM agreements where Android Messages is the default messaging app.

RCS was conceived and developed by the industry to be an open, interoperable, multi-vendor, operator-controlled messaging platform as SMS was prior. This is a critical step in preserving the success of RCS, while enabling service innovation for mobile operators. Ironically, the Google client and messaging backend (Jibe Hub) do not follow Universal Profile specifications and standards. Therefore, what Google is forcing on the industry is not RCS; it is a closed, proprietary platform that cannot simply interoperate with RCS without having significant content and protocol adaptation.

[Read Interop Technologies’ RCS Google Response Plan](#)



# THE RCS DIFFERENCE

## ■ The Solution

The Rich Communication Services (RCS) protocol for personal and business communications enables mobile operators to differentiate from OTTs by delivering richer, app-like features with the same operator control of native messaging. As an operator-grade service, RCS seamlessly integrates within the client/handset and offers reliability, security, interoperability, and inter-working with SMS/MMS fallback.

Features such as 1-to-1 messaging, group chat, audio messages, location and file sharing, video sharing, and enriched voice calling help RCS transform traditional voice and text messaging. The enriched A2P and P2A capabilities available through RCS Business Messaging enables real-time 2-way conversational commerce interactions which will allow operators to diversify their services and drive new revenue.

Driven by technology advancements such as artificial intelligence, virtual reality, cloud computing, and other developing technologies, messaging in the 5G era is expected to serve as a platform for future developments, as consumers' demand for richer ways to communicate continues to grow.

## RCS BUSINESS MESSAGING CAPABILITIES...



### **RICHER CONTENT**

Rich cards, suggested actions, smart replies, clickable links and high-resolution images and video help drive subscriber engagement directly within an RCS business message.

### **REAL-TIME UPDATES**

Know exactly what is going on with an RCS message with delivery and read receipts, as well as real-time is-typing indicator feature.

### **VERIFIED SENDER**

Only verified brands can utilize the RCS channel, which protects subscribers from spam or security issues.

### **LEGACY FALLBACK**

When a subscriber's device or network doesn't support RCS, the message is automatically converted into an SMS or MMS to ensure that all messages are delivered.

# RCS SUCCESS STORIES

## ■ Customer Care

Research shows that text message open rates are as high as 98%, so it's no surprise that customers today favor connecting with brands about customer service matters via messaging. With the next-gen features available with RCS; mobile operators are also using this new channel to extend value to their subscribers and reduce call center costs.

Benefits of using RCS for customer care:

- Reduce costs, the number of support calls, and time to resolution
- Free-up support time to handle complex cases
- Provide personalized customer support 24/7



ANSWER FAQs



BOOK FLIGHTS



GET DIRECTIONS



APPOINTMENTS



LOGIN/PASSWORD HELP



BUY TICKETS



CONFIRM PAYMENT



PURCHASE PRODUCTS



TROUBLESHOOT



SEND ORDER UPDATES



CHANGE USER SETTINGS



AUTHENTICATION

## Telcos Using RCS for Customer Service



# GLOBAL SUPPORT FOR RCS

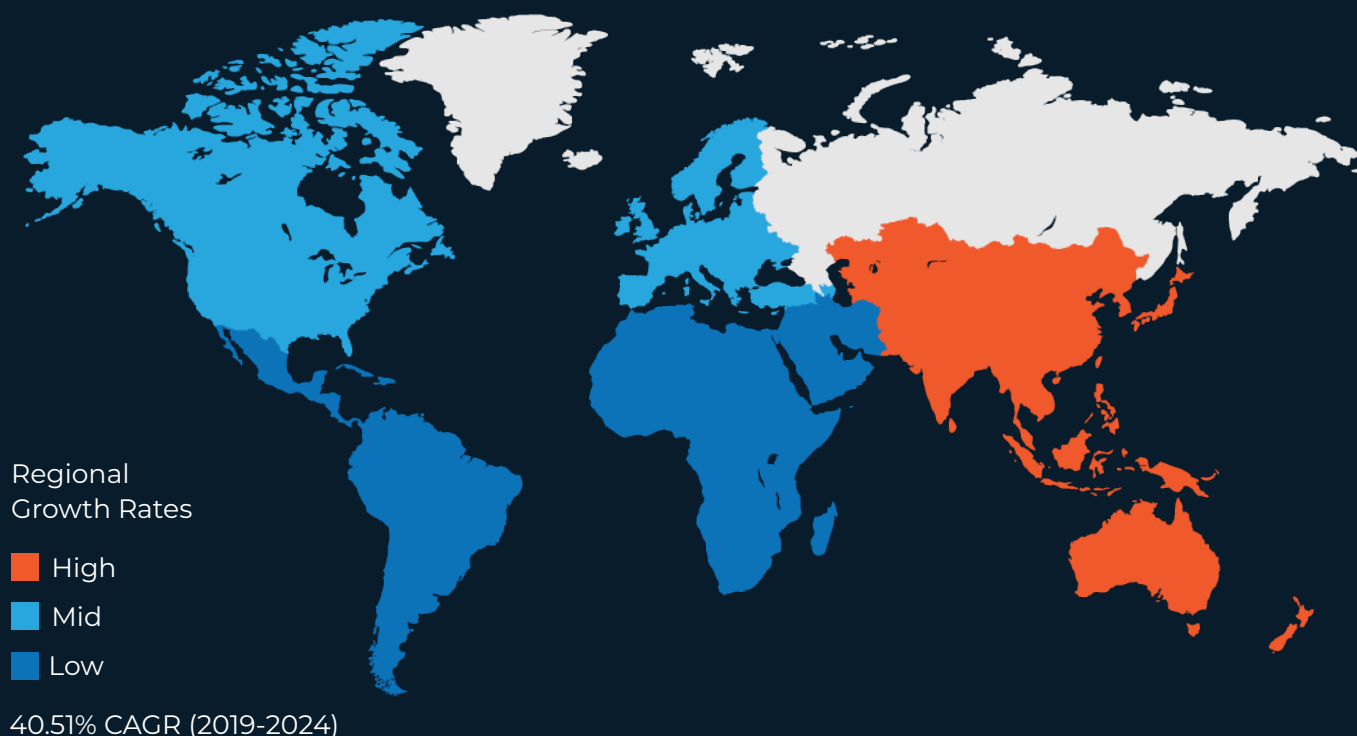
## ■ Finding Opportunities

Across the globe, mobile operators, telecom service providers, aggregators, analysts and others are coming together to ensure that RCS remains an operator-led and ubiquitous initiative. This includes support from industry trade bodies such as the GSM Association (GSMA) and Mobile Ecosystem Forum (MEF). In addition, the three major carriers in the U.S. (Verizon, AT&T, T-Mobile/Sprint) have all been busy planning and working alongside one another to deploy interoperable in-network RCS solutions.

The reality is that consumers are already reliant on rich messaging, major brands want it, and mobile operators need to launch it to ensure that they remain at the center of mobile messaging. Analysts at research firm Mobilesquared predict that by 2024, RCS will be the largest rich messaging platform globally, growing from 773 million users to more than 3 billion.

Based on RCS deployment plans globally, Mobilesquared forecasts that by 2024, RCS will generate revenues up to \$8.3 billion from the traditional telco A2P SMS model.

## Global RCS Market Growth by Region





Business messaging as a service has never been in a better position. Its future has been founded on the bedrock of mobile operator controlled A2P SMS, and that in itself presents a fantastic opportunity for mobile operators to remain central to the rich messaging environment.

— Nick Lane,  
Chief Analyst & Founder at Mobilesquared



# WHY INTEROP TECHNOLOGIES?

## ■ Accreditation is Key

The GSMA's RCS Universal Protocol (UP) Initiative has provided the mobile industry with universal standards and the interoperability needed to traverse across operator networks. Interoperability and testing for RCS is key to its success and requires proven capabilities on the part of the provider.

Interop Technologies is proud to be one of the most accredited RCS service providers globally. This formal statement of GSMA Accreditation certifies that Interop's RCS solution is compliant with the universal RCS specifications and is interoperable with other devices, clients, and operator services, as demonstrated by passing a series of rigorous tests. By selecting an accredited provider like Interop Technologies, operators who launch RCS today can be assured that their solution interoperates with RCS-enabled clients and operators. Interop's RCS solution is fully compliant with the GSMA's UP 1.0, 2.0, 2.1 and 2.2 specifications and will continually be updated to adhere to new standards and releases.

## STANDARDS DEVELOPMENT:

- GSMA development of RCS specifications:
  - RCS-e, RCS5.0 UNI, RCS 5.0 NNI, RCS 5.1 UNI
  - RCS 6.0 UNI
  - RCS UP 1.0
  - 2.0, 2.1 and 2.2
- SIMPLE IM, CPM, Device Management, and other enablers
- GSMA and OMA IOP activities for RCS functionality
- RCS API and OMA API programs
- OEM Handsets
- Android and iOS Clients
- RCS APIs
- RCS Aggregators
- IMS Core
- RCS International Interconnect



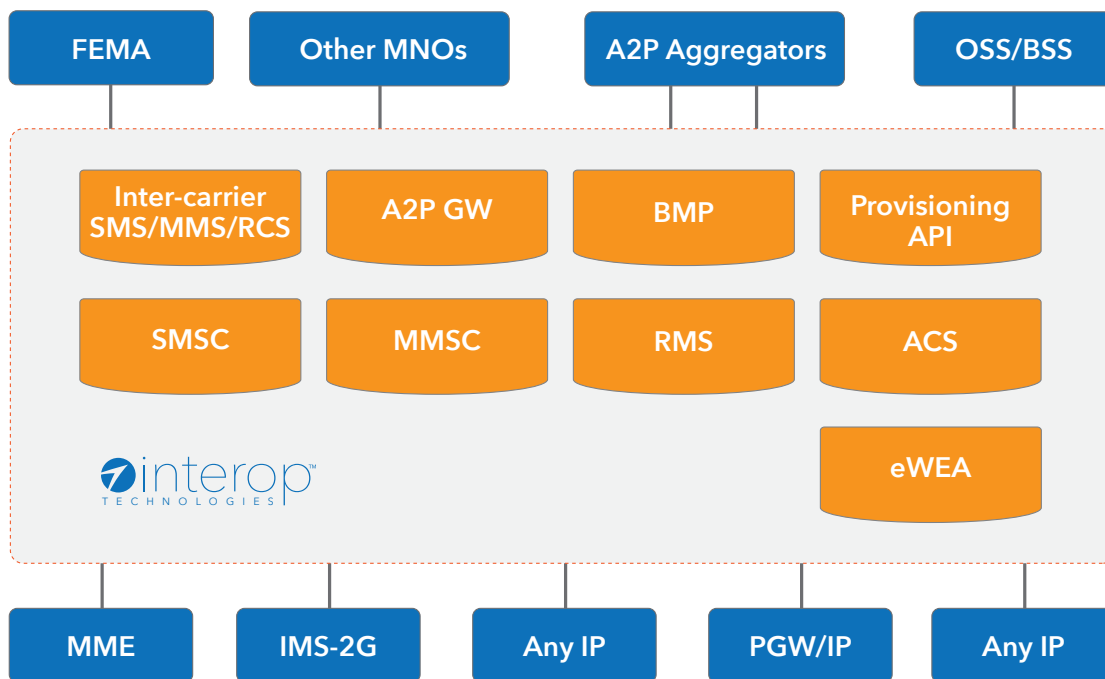
## SYSTEM MANAGEMENT, SERVICES AND SUPPORT

- In-house team of SS7, IP and IMS professionals that build, monitor, and manage solutions.
- Comprehensive support for all Interop solutions – including training, troubleshooting, and ongoing management.
- Perform all scheduled activities for software and hardware– including moves/adds/changes, maintenance, documentation and reporting.
- 18+ years expertise in billing and systems integration.
- Analyze solution/operator performance and conduct quarterly and annual reviews.
- Established incident resolution process; record, prioritize, escalate, dispatch and solve.
- Experienced technical service professionals that handle routine care as well as incident reporting and resolution.
- Cross-functional teams assembled across project management, product management and engineering, and account management.



# NETWORK-BASED INTERWORKING AND PROTOCOL FUNCTIONALITY

Interop Technologies has developed an RCS solution that enables operators to offer IMS-based standards including network-based interworking to legacy protocols such as SMS and MMS without the need for an IMS Core deployment prior to service launch for operators still planning their 5G network.



## FLEXIBLE DEPLOYMENT OPTIONS

**Hosted/Managed** – In this cloud-based deployment, equipment is located in Interop's data centers and managed by Interop network engineers. This is an OPEX based model, typically charged on a per-active-subscriber basis.

**Private Cloud/On-Site** – In this hybrid integration model, equipment is purchased by the operator and deployed in their network but managed by Interop engineers. This is a blended OPEX/CAPEX model.

**Perpetual License/In-Network** – In this turnkey deployment model, the operator buys a platform outright from Interop and manages it themselves. This is a CAPEX model with an annual maintenance fee structure.



We are driven to develop solutions that help operators meet their deployment needs while navigating the changes that occur throughout the technology lifecycle. We've dedicated a vast amount of time and expertise to the advancement of RCS with this in mind..

— John Dwyer,  
President & CEO at Interop Technologies





# HISTORICAL MILESTONES

## ■ Messaging Innovation

2011 | Interop Technologies was the first telecom service provider to announce and offer RCS without the need for an operator owned IMS core. This solution was the first of its kind without IMS to provide full RCS compliance and seamless client integration.

2012 | Interop Technologies' RCS solution became the first to introduce and demonstrate full backwards compatibility and legacy interworking on a live carrier network. This advancement enabled mobile devices connected to our RCS solution to exchange messages with other devices, regardless of whether those devices used RCS or SMS/MMS technology. This revolutionary step helped to bridge the gap between legacy and next-generation messaging through network-based interworking gateways.

2014 | Interop Technologies received intellectual property rights pertaining to RCS without IMS and RCS interworking with the legacy network from the United States Patent and Trademark Office, solidifying it as a distinctly differentiated technology in the mobile communications industry.

2017 | Interop Technologies receives two additional U.S. patents on its RCS technology from the U.S. Patent and Trademark Office. These U.S. patents protect Interop's RCS to RCS technology, and Legacy to RCS technology, further demonstrating our ongoing commitment to finding better ways to innovate and migrate operators to next-generation communication technologies.

2018 | Interop Technologies' RCS solution was among the first to receive Triple Accreditation for full GSMA UP 1.0 in framework, messaging and enriched calling.

2019 | Interop Technologies achieves the first GSMA UP 2.0 Application-to-Person (A2P) RCS Accreditation. Later that year, Interop Technologies wins Informa's Leading Advanced Communications Award for RCS.

2020 | Interop Technologies wins Juniper Research Award for Best RCS Provider.



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## CONCLUSION

Operators will need powerful, reliable and scalable platforms as they transition from legacy messaging to 5G messaging to ensure they are prepared for and able to realize the revenue potential of RCS and the MaaP economy.

Retaining control of subscriber messaging habits is contingent upon operator's swiftness in launching an on-network RCS solution. Without the transition to RCS messaging, operators not only risk losing a key subscriber touchpoint, but they will forfeit the opportunity to take advantage of the transformative opportunities that the new 5G mobile economy will bring via this richer engagement channel. This includes using rich communications to immediately enhance customer care initiatives to assist operators in upselling products, reducing call center volume and growing subscriber loyalty with more personalized interactions. All of which operators have been struggling with in recent years. The operators who launch early will grow subscriber adoption quickest and solidify RCS as their new native experience with a seamless evolution.

When traditional solutions don't provide the foundation needed to successfully evolve, operators can look to Interop Technologies for solutions that support the deployment of next-gen technologies to innovate and grow revenue, while maintaining seamless operation of legacy network functionality well into the future. 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 and launch RCS 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.



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