

WHAT IS RICH COMMUNICATION SERVICES (RCS) MESSAGING?



Rich communication services (RCS) have been around for several years, but RCS messaging is picking up steam — particularly with Apple adding RCS capabilities with iOS 18.1 in 2024. As people become comfortable with the dynamic, real-time messaging experience that can be found in messaging apps, businesses are wondering whether similar features found in RCS might help them increase customer engagement.

But what is Rich Communication Services, and how can the technology be used to offer a better customer experience? What is the difference between RCS vs. short message service (SMS)? In this post, we'll explain RCS messaging, how it works, and how it differs from other popular messaging services.

What is RCS messaging?

Rich Communications Services messaging is a mobile communications protocol that enables enhanced messaging, voice, video, file transfer, notifications, and security.

RCS supports real-time messaging, including support for adding images, videos, and other files as needed. RCS also delivers conversational features that are already familiar to people who use over-the-top (OTT) messaging apps, like WhatsApp and Facebook Messenger. These interactive features include group chat, typing notification, message delivery status, user tagging, and location sharing.

RCS was designed to replace SMS messaging and multimedia messaging service (MMS), which were the first widespread forms of messaging on mobile phones and then smartphones. Unlike SMS messages, which can only be transmitted across cellular voice networks, RCS conversations can take place across cellular data networks and Wi-Fi connections.

RCS messaging vs. other messaging protocols

Rich Communication Services messaging differs from other messaging protocols, such as SMS or MMS, which were designed when ubiquitous high-speed mobile data coverage was not commonplace. Although RCS offers a modern conversational experience like an OTT app, it uses a distinct technology framework under the hood.

RCS vs. SMS messaging

SMS messaging has been around for more than 30 years. Every mobile phone supports SMS, and it works on any carrier, whether or not you have a cellular data plan. The catch is that SMS messages are limited to 160 characters per message. Any message exceeding this limit is broken up into multiple messages of 160 characters each, though most cellular carriers automatically stitch these messages back together to make them easier to read.

RCS is comparatively new, having first been proposed in 2007. Built for business messaging, RCS enables brands to display their name and logo to establish brand trust. It also supports better metrics than SMS, enables client-based read and deliver receipts, and allows businesses to run campaigns at scale. RCS requires a cellular data plan or an IP-based internet connection, like 4G LTE, 5G, or Wi-Fi. RCS uses that data connectivity to provide rich features that go far beyond simple text messaging, like voice, video, file transfer, group chat, and better security. RCS is not currently available on all devices and carriers. It works well on Android devices, and Apple supports RCS through iOS 18.1 and above.

RCS vs. MMS messaging

MMS messaging can be thought of as a companion to SMS, which only allows people to send and receive text messages. MMS facilitates the transmission and receipt of multimedia content, such as images, audio clips, contact information, and even video files — though the quality is not as high as users of RCS and OTT messaging apps would expect, since file sizes are typically limited to 300 kilobytes.

RCS already includes support for rich multimedia content by design. People can use RCS messaging to send and receive text messages in addition to high-quality images, audio, and video. RCS also supports other features that make real-time conversations more engaging, like group chat, location information, typing notification, and message delivery status.

RCS vs. OTT messaging

At first glance, RCS and OTT messaging apps are quite similar. Both RCS and OTT apps make it possible to have a meaningful text, audio, or video conversation with another person or a group of people in real time, and you can typically see when someone else is typing or know when your message has been delivered. RCS and OTT also rely on data connectivity to work.

However, the similarities end there. RCS isn't an app. Rather, it's an industry standard for rich communications services that can be made available on any phone that is serviced by any carrier. RCS includes business features such as branded sender IDs, enhanced compliance and security, and an open ecosystem. RCS is natively supported in messaging apps you might already be using, such as the Google Messages App and the Samsung Messages App. Unlike WhatsApp or Facebook Messenger, for example, you and your conversation partner(s) don't have to be logged in to use RCS.

Key features of RCS messaging

An RCS message can include much more than basic text. RCS messaging also supports high-resolution photos and videos, read receipts, cross-app connectivity, group chats, large files, and better security. All these features enable smoother, more satisfying conversations that can build trust and enhance engagement.

Text messages

As with traditional SMS messaging, you can use Rich Communication Services to send and receive messages containing text. SMS messages only allow you to use up to 160 characters per message. On the other hand, up to 3,000 UTF8 characters are supported within one RCS message.

High-resolution photos and videos

RCS lets you send and receive high-resolution videos, animated GIFs, videos, and more. With the ability to send high-quality multimedia content, you can have more engaging conversations.

Read receipts and other notifications

In an OTT app, it's common to see read receipts, message reactions, or notifications when someone is texting. These features make it easier to have a smooth group chat or one-to-one exchange in real time. RCS messaging works much the same way, allowing you to understand how a conversation is progressing.

Cross-app connectivity

You can also use RCS to send messages that open up in other apps, such as web browsers and maps. This makes it easier for customer service representatives to share product pages, FAQs, and store locations with customers, for example.

Group chats

Instead of only allowing one-on-one conversations, RCS supports group chats. And because RCS is not technically an app (it's natively available on a user's phone), people can start group conversations with friends, family members, or coworkers right from their phones without opening up and logging into an app.

Security

Business RCS platforms such as Google's RCS Business Messaging API encrypt RCS messages between the end user's device and Google's servers and, from there, between Google's servers and the messaging partner. This approach enhances security, reduces the risk of fraud, and improves trust.

Large files

One of the lesser-known RCS messaging features involves file transfers. You can use RCS to send and receive files of up to 100 megabytes. This RCS messaging capability could come in handy for sharing product documentation, an application form, or a user guide, for example.

Why Rich Communication Services is the wave of the future

Although RCS messaging has flown under the radar compared to SMS, more mobile device manufacturers and carriers are beginning to support it. Like OTT apps, RCS enables feature-rich group chats that can be accented with high-resolution photos and videos, and it can even send links to open browsers or specific locations on maps.

Crucially, all this can be done far more securely on RCS than it can on SMS and MMS, which is why RCS messaging has great potential for any business that wants to inspire trust and confidence among its customers. And because RCS is built into many modern smartphones, no extra downloads are required to use it.

RCS messaging can help your business

RCS messaging creates engaging conversations on the devices customers already use without requiring them to download an app or be logged into it. Businesses can use RCS chats to increase response rates with imagery, shorten the sales cycle, simplify customer engagement, make consumer surveys more interactive and fun, and deliver order and shipping updates straight to customers' mobile devices.

To top it off, all this can be done securely, using verified identities that customers can trust. Any business that wants to provide a better customer experience can benefit from exploring how dynamic RCS messaging can make that possible.

Ready to get started using Rich Communication Services messaging for your business? Find out how Vonage can help.