Google’s ninth attempt at a messaging service will be based on RCS



Enlarge / Google’s “Messages” app.

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It’s time for the annual reshuffling of Google’s messaging strategy! The latest news comes to us via The Verge, which has a big feature detailing Google Messaging Strategy 2019: taking RCS back from the carriers. Google now wants to run an RCS service (an upgrade to the aging SMS system) itself, with the service first launching in France and the UK later this month. RCS will be something like Google’s ninth instant messaging platform, after Google Talk, Google Voice, Google Buzz, Google+ Messenger, Hangouts, Spaces, Allo, and Hangouts Chat.

Last year’s Google messaging reshuffling saw the company kill Google Allo (AKA Google Messaging Platform 2016) and focus on Google Messages (the company’s SMS client) in an effort to promote RCS. RCS, or Rich Communication Services, is a planned upgrade of the carrier-owned SMS service, and it has been around as a GSMA (the worldwide mobile network trade body) standard for several years now. RCS’ goal is to bring very basic instant messaging features to carrier messaging—things like presence information, typing status, read receipts, and location sharing. Like a real chat app, RCS messages are sent over your data connection, and messages, photos, and videos all have bigger sizes.

In last year's plan (and every other plan involving RCS), the rollout was up to carriers. Every individual carrier on Earth had to individually go out and upgrade their SMS infrastructure to support RCS and the "Universal Profile," which is a federated system that lets RCS users on, say, Verizon, talk to RCS users on T-Mobile. With little monetary incentive to do so, the carriers have been extremely slow at upgrading. And even when a carrier is RCS-capable, carriers have been certifying RCS on a phone-by-phone basis.

Google's new plan is to push a new RCS service on users instead of leaving it up to the carriers. In the Google Messages app, which ships on some (not all, not Samsung-made) Android devices, Google will offer its own RCS-based messaging service that users can opt-in to. Again, Google says it will first offer its own RCS service in the UK and France sometime this month. But Google initially got heavily involved with RCS in 2015 when it bought Jibe Mobile, a company that provides back-end RCS services to carriers. Now instead of waiting for carriers to adopt its back-end RCS service, Google will reportedly just offer it directly to consumers.

One of the reasons Google has neglected to build a real iMessage fighter is due to its desire to keep carriers and OEMs happy, and this new RCS system is still built with the carrier's best interests in mind. Google's goal here isn't to replace or compete with carrier RCS service, but only to fill in the gaps until carriers get up and running with their own version of RCS. When (or if) a carrier builds its own RCS system, Google says it will turn over RCS control to that carrier. Google Messages should work with either Google-provided RCS or carrier-provided RCS.

All of the same Google Allo

problems

There are a number of reasons why you would not want to run a service based on RCS, and it sounds like Google's call to use RCS means the new service will have a lot of the same downsides that killed Google Allo. First, while RCS messages are encrypted in transit, they are not end-to-end encrypted, meaning your RCS provider (Google or your carrier) can read your messages. Since RCS is a GSMA standard built to replace SMS, end-to-end encryption just isn't in the spec. This puts the system at a privacy disadvantage compared to most other popular services like iMessage and Facebook's WhatsApp. Google was against encrypted-by-default messaging in Allo, but for RCS, Google is not in charge of the spec.

In response to the encryption issue, a Google spokesperson told The Verge, "We fundamentally believe that communication, especially messaging, is highly personal and users have a right to privacy for their communications. And we're fully committed to finding a solution for our users." This statement does not promise Google will offer end-to-end encryption for RCS messages, though, only offering some nebulous degree of "privacy." Again, it does not seem like RCS would support end-to-end encryption—such a thing would seemingly have to be offered as a custom system on top of the RCS standard for two users on the same client, similar to the way iMessage works. And as for data retention, Google told The Verge it will not keep your messages once they are delivered.

Like Allo, this new system would once again take the backwards approach of using a phone number-based identity system. Assuming this works like Allo and the existing Google Messages SMS implementation, this means you will only be able to connect to the service through your smartphone, not any of your other devices. There will be no real desktop app for Google RCS, with only a QR-code-driven website offered for people who want to keep a browser tab open. The average US

adult owns something like four connected devices, but in Google's RCS world, only one of them (your smartphone) is worthy of receiving messages.

The "Smartphones only" requirement will be a significant regression from Google Hangouts, which uses a cloud-based identity (your Google account) to allow you to log in via any device with an Internet connection. Hangouts has apps for Android phones and tablets, iOS phones and tablets, an always-on Chrome app that works on Windows, Mac, Linux, and Chrome OS, a website at hangouts.google.com, integration with Gmail.com, and even apps for smartwatches. iMessage works this way, too, offering clients for every Apple device form factor. Phone number-based apps are not even close to how a modern messaging system should work.

In addition to all of the old Allo problems, a Google-run RCS system practically defeats the whole purpose of RCS. RCS on its own is a pretty basic messaging system, but its (theoretical) appeal came from the fact that the carriers were doing it. Making RCS replace existing carrier SMS systems meant RCS would be the default, widespread messaging system that would work on every phone—again, *this was the whole point* of upgrading SMS to begin with. A carrier-run system would lead to wide, automatic adoption by many users even if they didn't know it.

A Google-owned RCS system would be on the phone *in addition* to carrier-owned SMS. It would be on the phone as just another option, leaving RCS' only real advantage (carrier defaultness) out of the equation. The Google Messages SMS app that this system uses doesn't currently ship on the most popular Android phones—Samsung phones. RCS also isn't an option on iPhones, and it's unclear if Apple ever wants to add support for an iMessage competitor to its platform.

For now, the service will only launch in the UK and France. Google has yet to give a timeline for when the service would

launch worldwide.

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