Matrix vs. WhatsApp

This document gives a detailed comparison of Matrix and WhatsApp. Disclaimer: the author of this document has not used WhatsApp personally and therefore may not have completely correct information. Please send any corrections to this document to computersemiexpert@outlook.com, or send me a pull request on GitHub. Updated versions may be found at https://lorendb.github.io/matrixvswhatsapp.pdf.

Overview

WhatsApp is a popular instant messaging app created in 2009 and later acquired by Facebook. WhatsApp is accessible on Android, iOS, and through a web browser. It is a closed-source app. To sign up, users enter their phone number. The app then imports their contacts and adds everybody who has WhatsApp to your WhatsApp contacts. WhatsApp encrypts all messages for privacy. It is designed to look like a texting app. Beyond simple instant messaging, it supports voice messages, voice calls and video calls. Users may post 'statuses' (a picture with a caption, usually showing a moment in someone's life) to WhatsApp. Statuses disappear after a short amount of time. For more information about WhatsApp, visit https://www.whatsapp.com/.

Matrix is not an app, but rather a protocol. Matrix was first announced in 2014 and completed in 2019. Matrix client apps are available for all the major operating systems (Windows, macOS, Linux, Android, iOS). Matrix rooms may be private or public. Public rooms are especially useful for people collaborating on the same project, or simply people talking about a common interest. Users sign up with a username. Adding an email address is optional, but is required to reset your password. The Matrix protocol and most (or all) Matrix client apps are open source, meaning that anybody may improve upon existing apps. Users may install the client app of their choice. Depending on the client app installed, users may send voice messages, voice calls, and video calls. Matrix does not have support for statuses. Matrix messages may be encrypted if desired. For more information about Matrix, visit https://www.matrix.org/.

WhatsApp vs. Matrix chart

Criteria	Matrix	Matrix score	WhatsApp	WhatsApp score
Messaging	Yes	1	Yes	1
Signup requirements	Email if desired, no phone required	1	Phone number, meaning users must have a phone	0

Attachments	Sent as separate messages	0	Attached to a particular message	1
Chat rooms	Public or private	2	Private	1
Development	Open source, improved by community	1	Closed source, developed by a company	0
Usability	All major platforms	1	Android, iOS, or web-based only	0
Statuses	Does not have statuses	1	Encourages statuses, which are irrelevant to the app's function	0
Voice messages, calls, and video calls	Allowed, depending on the client	1	Allowed	1
Total		**8**		**4**

Matrix wins!