

Sr No	General Feature	Telegram	WhatsApp	Signal	Remarks
1	Date of Origin	2013	2009	Gradually developed as Open Source revolution and fully operational by 2014.	Older the application gets, more reliable and stable it becomes.
2	Corporate	Telegram FZ LLC (Russia)	Facebook Subsidiary (since 2014)	Signal Foundation (Cofounded by Brian Acton (one of the developers of WhatsApp) in 2018).	Signal Foundation is a Non Profit organisation (Mission to develop open-source privacy technology that protects free expression and enables secure global communication)
3	Country of Origin	Russia (developed by Durov Brothers). Location keeps changing (Russia to Berlin and now Dubai (operations) and London (HQs).	United States (Yahoo Developers)	United States	As per SANS Report 2020 on top 10 countries by origin of Cyber Threat, the Russia ranks 1 and USA is 10 th .
4	Development History	Employee locations are kept secret (probably says Dubai and St Petersburg). Application details are not known except the Coding Language (C++) and the software Architecture.	The major part of the software is proprietary and no much information is available. Only the Signal Protocol used by WhatsApp is open-source. The details are not known except the Architecture.	The product is outcome of Open Source Revolution and is extension of Open Whisper Project developed by the community (with initial support of Twitter). Fully Transparent.	Signal App & WhatsApp both use the Signal protocol for Encryption (its code was published on the Internet by Twitter in 2011). Unlike WhatsApp, the Signal App is entirely based on Open Source Standards and is being developed by the Community.
5	Public Response	Censored in many countries. In India, certain ISPs are blocking it.	Being a proprietary protocol, it has suffered several spyware attacks. Also alleged to be involved in mass surveillance.	No controversy yet. Also it is being recommended by champions of privacy like Edward Snowden and Elon Musk.	The signal app was initially funded by donations through the Freedom of the Press Foundation and seed capital from Brian Acton (who was also creator of Whatsapp)
6.	Overall Comments	Proprietary Software and for Profit Motive.	Very small part is Open source and has Profit Motive.	Fully Open Source and Non Profit Motive.	Signal is Recommended.

Technical Comparison

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1	End to End Encryption	No. The encryption is from Client to Server and then Server to Client. Thus if the Server has the keys it can decrypt the communication. Also E2E is not enabled by default.	Partial. Data has End to End Encryption from Client to Client. But Metadata (like IP Address, Phone Number, Battery Level, GPS, Phone number, Area Code, Apps opened through WhatsApp etc. are not encrypted). Also Backups in the servers are allegedly not encrypted.	Truly End to End Encryption. Even the metadata is encrypted. Even servers do not have access to the membership list, group title, or group icon.	If any metadata that the Signal server stores is the last date (not time) each user connected to the server.
2	Chat Backups	Inbuilt cloud based backup. Secret Chats are not backed up.	Third party clouds are used for Backups. Backups are not encrypted.	Local backups can be enabled but is off by default.	In Telegram the backups are On by default while in Signal they are Off by default.
3	Screen Security	Enabled only if Secret chat option is On.	No such feature.	Enabled by default.	
4	Self Destructing Messages	Enabled only if Secret Chat option is On.	No such feature.	Enabled by default.	
5	Additional Security Features (if enabled)	Automatic Screen Lock and 2 factor Authentication.	Automatic Screen Lock and 2 factor Authentication.	Automatic Screen Lock and 2 factor Authentication.	
6	Group Chat Meta data Security	No	No	Yes.	
7.	Overall Comments	Signal is Recommended.			