There are many apps available on Android systems which feature a live group chat aspect; many of these apps feature this aspect alongside a wider range of social networking features.

Elements common to all group chat apps are:

* The app will maintain a contact list. If the app is provided by a larger underlying social networking service (for example, Facebook Messenger comes as part of Facebook), this contact list is usually the same as that from the social network. For apps without an underlying social network, such as GroupMe or Viber, the contacts list may be generated from either the contacts list of the user’s phone or the email account used to sign up to the service, or may be linked to a social network.
* The ability to start a conversation with one or more contacts, or to respond to an existing conversation.
* Ability to monitor whether a particular contact is online or not.
* Messages may be purely textual, or can contain multimedia. Sending images was supported in all apps surveyed, and sending video was also present in some apps. All apps will timestamp their messages; whether this is the time the message was sent from the sender or the time the message was received by the user’s device is not made clear in any of the apps.
* Old conversations will be stored. This can take place either to the user’s device or uploaded to the servers running the app. Uploaded messages will generally be shared between all of the user’s devices capable of connecting to the service. Generally, uploaded messages are deleted after a certain period of time depending on the app company’s privacy policy.
* A conversation can be resumed after disconnection. This usually means previous messages will also be loaded.
* Invitation of additional participants to the conversation.
* Ability to message an offline contact, who will receive any sent messages when they next login.
* Notifications to phone for any incoming messages, similar to text messaging.

Extra features that some apps feature:

* Ability to see whether which receivers have seen a particular message.
* Built-in support to message contacts which do not have the app through alternative means, for example, SMS.

Limitations:

* Replies to a group conversation are not directed to an individual message; messages will just appear one after another within the conversation.
* Unclear whether any ordering guarantees have been made for any of the chat apps.

Skeenzone:

***skeenzone****.googlecode.com/files/****skeenzone****.pdf*

* Middleware that enables total ordering on multicast messages within groups on devices connected p2p.
* Ordering of messages is handled entirely on the device itself.
* Identification of other users is done through IP addresses.
* ChatHoc is an example app setup to implement the middleware.

Master's thesis by Jonas Adahl:

http://publications.lib.chalmers.se/publication/138023

* LAN only
* Server-less architecture
* Not tested with mobile data networks

# List of apps:

## GroupMe

https://play.google.com/store/apps/details?id=com.groupme.android

* Searches contacts list on phone for others with GroupMe app account automatically.
* Will send/receive via SMS if the sender/receiver does not have the app installed.

## Skype

https://play.google.com/store/apps/details?id=com.skype.raider

* Voice calls are P2P, unsure whether messaging is the same.
* Only Skype contacts.

## Facebook Messenger

https://play.google.com/store/apps/details?id=com.facebook.orca

* Linked to user’s Facebook account.
* Allows sender location to be attached to each post.
* Message delivery receipts

## Google+ Messenger

https://play.google.com/store/apps/details?id=com.google.android.apps.plus

* Uses existing Google+ contacts tied to user's Google+ account.

## Viber

https://play.google.com/store/apps/details?id=com.viber.voip  
Primarily a VoIP app for smartphones; also allows the transmission of multimedia messages with support for group chat.

* Tied to the phone number of the user’s phone. Group chat only available between other Viber users.
* Automatically scans contact list for contacts that also have Viber installed.

## Kik Messenger

<https://play.google.com/store/apps/details?id=kik.android>

## WhatsApp Messenger

<https://play.google.com/store/apps/details?id=com.whatsapp>