

# Improving Real Time Communication with free software

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## About me

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# Getting into the open source world-FOSSASIA



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## Debian and Ring booth in FOSSASIA



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## RTC project as a part of GSoC



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## DebConf-2016



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## Talk on RTC(<https://debconf16.debconf.org/talks/14/>)



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## Other talk opportunities in Open source conferences

- OSCON- London
- DevFest- GDG, Silicon valley
- WikiToLearn India conference
- mini debconf- Japan
- FOSDEM
- OSCAL

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# Real Time Communication (RTC)

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## What is Real Time Communication?

- Real Time Communication (RTC) is any mode of telecommunication in which users can exchange information instantly (in real time or live) or with very minor delay.
- Examples: Text messaging, Video conferencing, Calling

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## Free RTC

- Running your own, independent, federated and peer-to-peer RTC solutions, including instant messaging (IM), voice-over-IP (VoIP), video/webcam, social networking and WebRTC, using open standards and, in many cases, free, open source software.

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## Why free RTC?

- **Resilience:** operating RTC servers to the same high standard as the rest of your non-stop infrastructure rather than relying on some vendor who provides a free download for anybody and everybody.
- **Security:** avoid installing proprietary, third party communications apps and plugins.
- **Privacy:** avoid letting sensitive information be harvested by cloud providers.

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## Free alternatives

- Jitsi
- Linphone
- Ekiga
- Tox(qtox)
- Mumble

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## Protocols

- **SIP** (Session Initiation Protocol) : Communications protocol for signalling and controlling multimedia communication sessions.
- **XMPP** (Extensible Messaging and Presence Protocol) : Communication protocol for message-oriented middleware based on XML (Extensible Markup Language)
- **Peer to peer technology** : Interconnected nodes share resources amongst each other without the central administrative system.

Both SIP and XMPP can do all the same things. SIP can make phone calls, video calls and instant messaging (IM) sessions. XMPP can also make phone calls, video calls and IM sessions. There has been a tendency to use SIP more for voice and use XMPP more for IM.

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## Voice and video over IP

- Voice over IP (VoIP) is a methodology and group of technologies for the delivery of voice communications and multimedia sessions over Internet Protocol (IP) networks, such as the Internet. One can make phone calls through internet by using VoIP phones and technology.

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## Goals

- Helping people to avoid using proprietary communications.
- Simplifying the setup of free alternatives.

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## E-mail mining

- Coding for connecting to an email account (using IMAP) and examines every message in every folder.
- Writing a basic Python script to look at the "To", "From" and "CC" headers of every email message in the folder. Identifying all the names and email addresses and writing them in a CSV file.
- Scanning the body of each message looking for phone numbers.(for messages in plain text format)
- Cleaning up the phone numbers and write them in international format and putting those in the CSV file too.

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## Discussions

- Any suggestions to improve free RTC?

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**Thank you!**

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