Jami and how it empowers users

LibrePlanet 2021

Amin Bandali
What is Jami?
Jami is free software for universal communication that respects the freedom and privacy of its users.
Jami is developed by Savoir-faire Linux® based in Montréal, Canada. Savoir-faire Linux is a team of free software consultants providing training, consulting, development, and support services for free software technologies.
• one-on-one conversations
• file sharing
• audio/video calls & conferences
• screen sharing in video calls & conferences
• recording & sending audio/video messages
• SIP phone software functionality
• cross-platform communication framework
Architecture overview
Architecture & components of Jami
Jami is an end-to-end encrypted secure and distributed voice, video, and chat communication platform that requires no central server and leaves the power of privacy and freedom in the hands of users.
Centralized  Decentralized  Distributed
OpenDHT

- lightweight and scalable, designed for large networks and small devices
- high resilience to network disruption
- IPv4 and IPv6 support
- clean and powerful C++14 map API
- C, Rust, and Python 3 bindings
- public key crypto layer providing optional data signing and encryption (using GnuTLS)
- REST API with optional HTTP client+server and push notification support
alice

bob
Development news
• many connectivity improvements
• automatic video bitrate adjustment
• detached host rendezvous points
• notification improvements
• bidi text in the chat view
• video renderer improvements
• conference call moderation
• improved error handling
• object copy reductions
• plugin API overhaul
• ... and more!
Rendezvous points
Plugins
AutoAnswer
GreenScreen
discover more Jami plugins
jami.net/plugins

learn more about the plugins SDK
jami.net/plugins-sdk
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JAMS
Jami account & device management

Diagram:

- Alice
  - device1
  - device2
  - device3
Jami account & device management (with JAMS)
jami-qt client
Jami is free software for universal communication which respects the freedoms and the privacy of its users.

This is your Jami username. Copy and share it with your friends!

bandali

About Jami

jami-qt – main window
hours (1)
03/11/2020 - Finished

Missed incoming call

Missed incoming call

امتحان می‌کنیم
یک دو سه
و اینکه نقطه.
20/11/2020

Hello World from the AutoAnswer plugin :-)
jami-qt - settings view (account)
jami-qt - settings view (general)
Moderation
jami-qt - moderation
Swarm chat
characteristic features of swarm chats:

- split and merge based on connectivity
- message history synchronization
- no central authority or server
- non-repudiation: each device must be able to verify validity of old messages and replay the whole history
- PFS during transport
- device-local storage
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four modes for swarm chats:

- 1-to-1 (conversation with another Jami user)
- admin-invite-only (e.g. a class where the teacher can invite people, but not students)
- invite-only (a private group of friends)
- public (a public chat forum)
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maintain a synchronized Merkle tree of messages

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reasons for using git include:

- need to synchronize and order messages
  - git is distributed by nature
  - widely used and popular
  - can verify commits using hooks and cryptographic signatures
  - can be stored in a database if needed
  - conflicts arising from splits/merges are much better handled by using commit messages rather than files
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demo time!
download jami-qt
jami.net/download
Community
• **jami.net**
  • forum.jami.net
  • jami@gnu.org
  • #jami on freenode
  • git.jami.net
  • review.jami.net
  • docs.jami.net
• write and share your own plugins
• help translate Jami to your language(s)
• package Jami in your GNU/Linux distribution
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Thanks!

Amin Bandali <bandali@gnu.org>
shemshak.org/~bandali/lp2021
(GPLv3+)