

jitsi

Open Source Videoconferencing Server

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HV Open July 2020 Meeting

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Motivation

- Massive concerns around [security, privacy, and transparency](#) [1] at most major web videoconferencing providers
- Upcharge for encryption or unavailable
- Lack of control over infrastructure
- Significant subscription costs
- Performance problems / outages due to sudden increase in load

[1] <https://www.theverge.com/2020/4/1/21202584/zoom-security-privacy-issues-video-conferencing-software-coronavirus-demand-response>

History

- 2003 – JsPhone – French student project
- 2008 – Renamed SIP Communicator
- 2009 – Blue Jimp company founded
- 2011 – Renamed Jitsi (from the Bulgarian “жици”, or “wires”) – now supports audio/video over XMPP Jingle extensions
- 2012 – Conferencing via routed video streams
- 2013 – Video routing extracted as separate server application ‘Jitsi Videobridge’, adds support for ICE and DTLS/SRTP, becoming WebRTC compatible
- 2014 – Jitsi Meet community project
- 2015 – Acquired by Atlassian
- 2016 – Acquired by 8x8

Accessing jitsi

- Servers :

Public use: <https://meet.jit.si/>

Build your own

- Clients:

Mobile: iOS & Android

Web: Browser based

Desktop: [Electron Client](#)

- Integrations

Telephony: Jigasi – SIP bridge

Calendars: Google, Microsoft Office 365



Output streams: Jibri - YouTube livestream, recording to Dropbox

YouTube video sharing

Profiles: gravatar

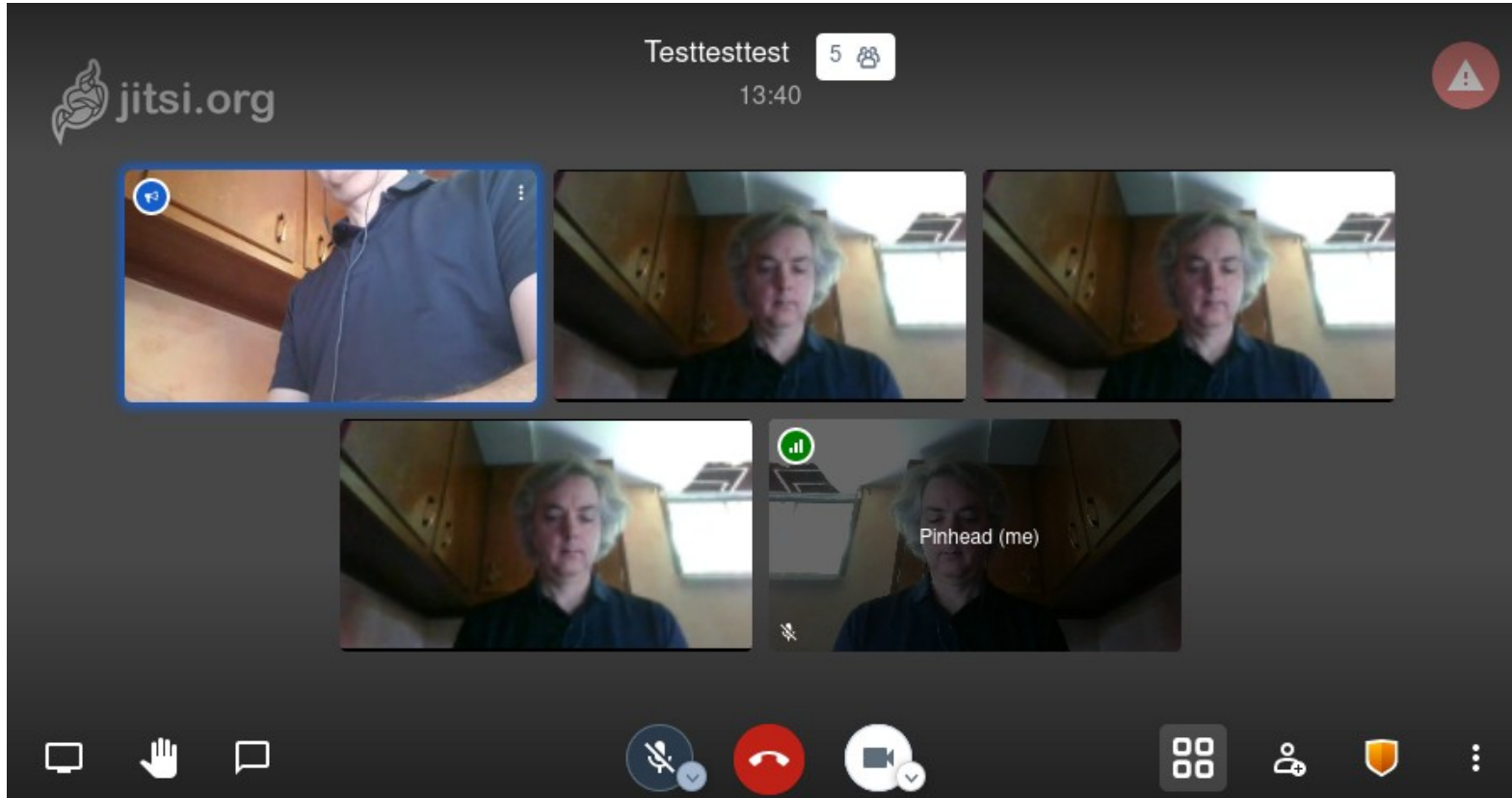


Security

- Meetings:
 - Ephemeral – created when first participant arrives, destroyed when last leaves
- Meeting names:
 - Name is all the security there is! Protect them!
 - Don't use easily guessable names : warns you if you do
- Passwords can be set: look for  in bottom right
- End-to-end security
- Limited analytics and metrics collected

More detail : <https://jitsi.org/security/>

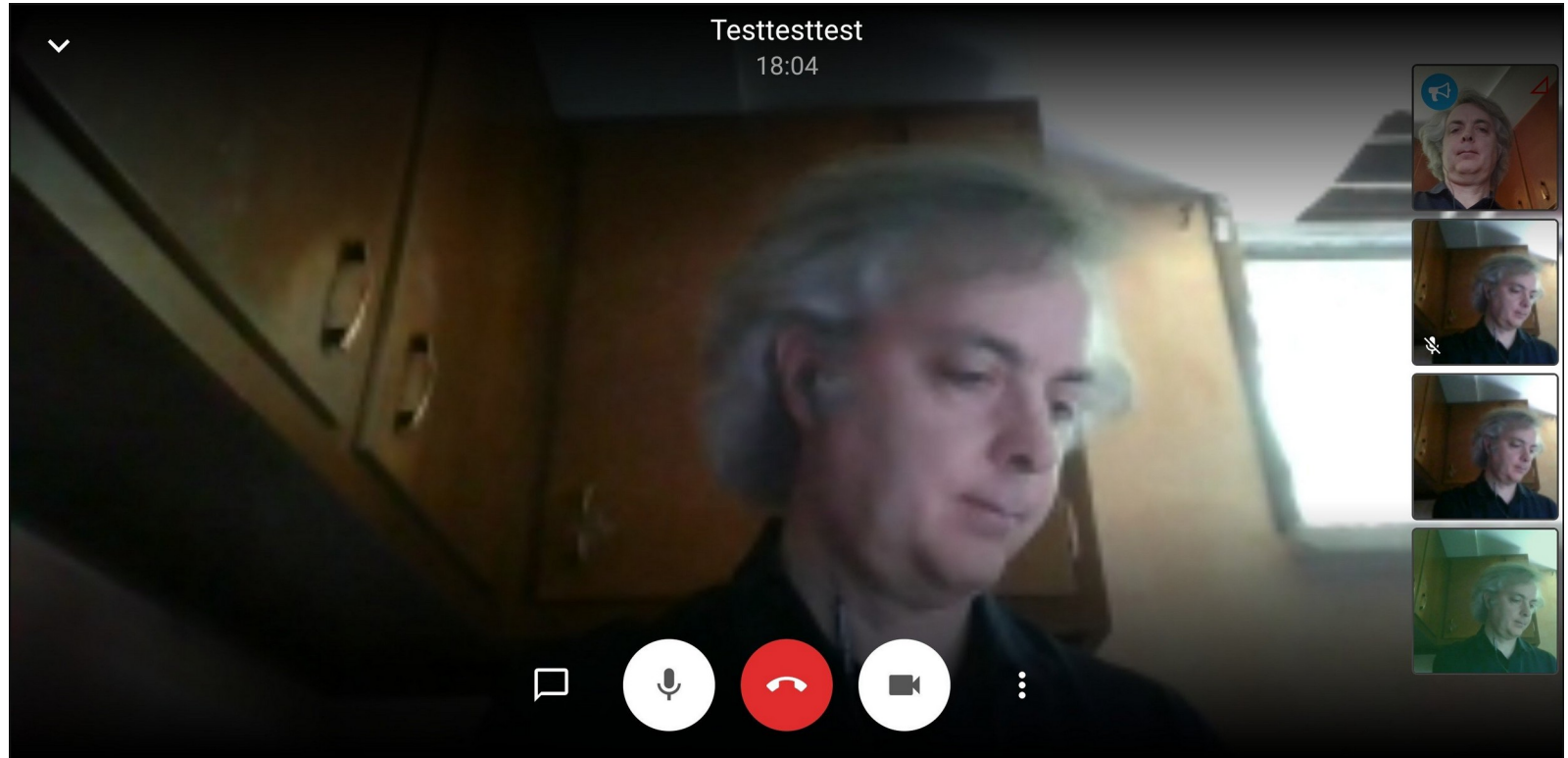
Web UI (tile view)



Web UI (focus view)















Mobile UI (focus view)



Mobile UI (tile view)



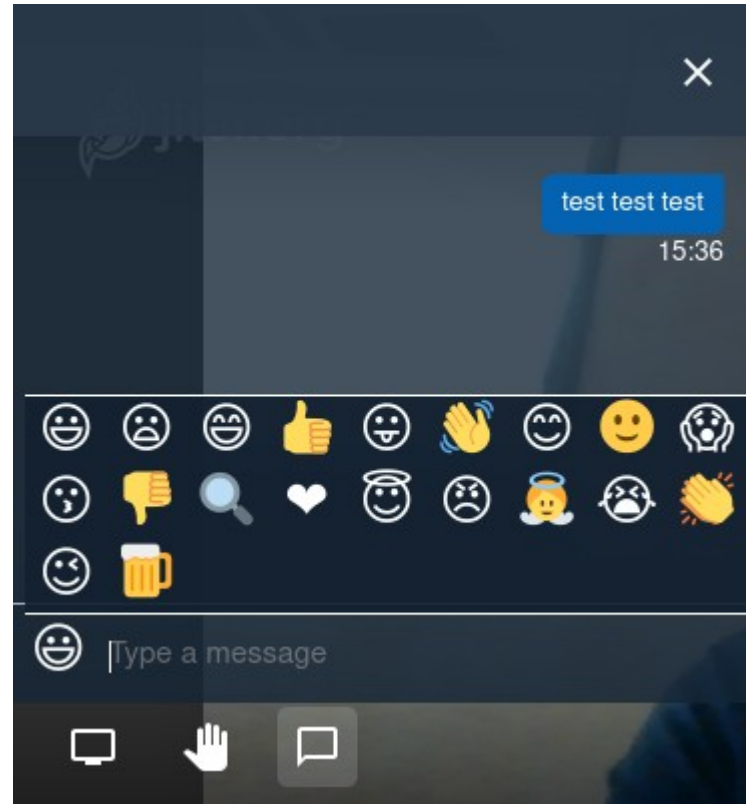
Features

-  Pinhead
-  Manage video quality
-  View full screen
-  Start live stream
-  Start recording
-  Share a YouTube video
-  Blur my background **BETA**
-  Settings
-  Mute everyone
-  Speaker stats
-  View shortcuts
-  Help

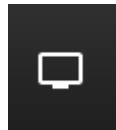
Keyboard shortcuts


Show or hide video thumbnails	F
Mute or unmute your microphone	M
Start or stop your camera	V
Manage call quality	A
Open or close the chat	C
Switch between camera and screen sharing	D
Raise or lower your hand	R
View or exit full screen	S
Toggle tile view	W
Show or hide keyboard shortcuts	?
Push to talk	SPACE
Show speaker stats	T
Focus on your video	0
Focus on another person's video	1-9


Features - Chat




Features – Screen Share



 <https://meet.jit.si/testtesttest>

 Will you allow **meet.jit.si** to see your screen?

Window or Screen to share:

Select Window or Screen 

Remember this decision

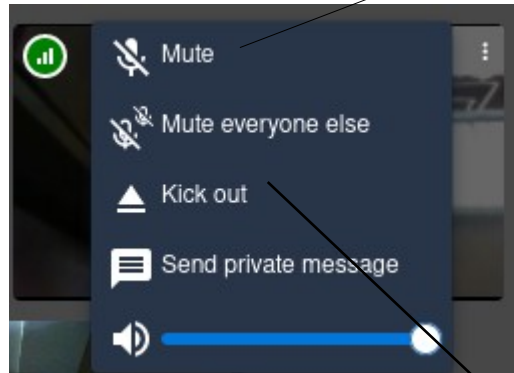
[Don't Allow](#) [Allow](#)

Moderation

- Public server :
Public moderation model – no special moderators
- Private server : configurable

-  → Shows others 

Moderation



Mute this participant?

You won't be able to unmute them, but they can unmute themselves at any time.

Mute Cancel



You have been muted by Pinhead!



You can always unmute when you're ready to speak. Mute back when you're done to keep noise away from the meeting.




Ouch! Pinhead kicked you out of the meeting



You can contact Pinhead for more details.

Dismiss

Stats



Connection: Good

Bitrate: ↓ 346 Kbps ↑ 2329 Kbps

Packet loss: ↓ 1% ↑ 0%

E2E RTT: N/A

Connected to: us-east-1

Resolution: 320x176

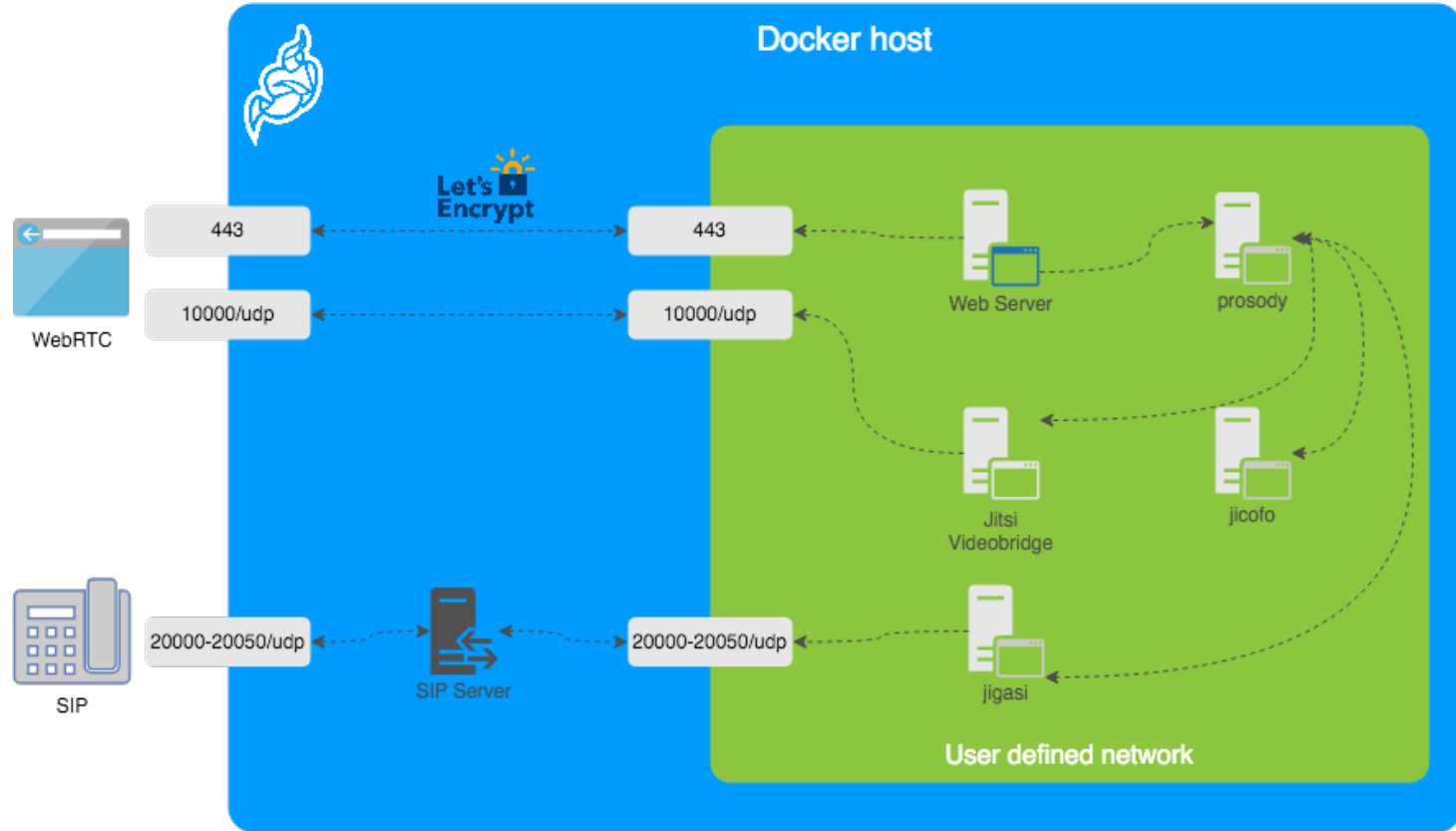
Frame rate: 28

Speaker Stats

Name	Speaker Time
<input checked="" type="radio"/> Pinhead	24s
<input type="radio"/> Pinhead (me)	0s
<input type="radio"/> Fellow Jitster	22m11s
<input type="radio"/> Pinhead-1	0s
<input type="radio"/> Pinhead	0s
<input type="radio"/> nomad	0s

Close

Self-Hosting – Architecture



Self-Hosting – Debian / Ubuntu

- **Debian / Ubuntu Packaging**

Debian 10 / Ubuntu 18.04 or later

Jitsi package repository

Firewall config

TLS certs

```
sudo apt install jitsi-meet
```

```
sudo apt install jigasi
```

Self-Hosting – Container Based

- `git clone https://github.com/jitsi/docker-jitsi-meet/releases/latest`
- **Create .env file:** `cp env.example .env`
- **Set strong passwords:** `./gen-passwords.sh`
- **Create CONFIG directories:**

```
mkdir -p ~/.jitsi-meet-cfg/{web/letsencrypt,transcripts,prosody/config,prosody/prosody-  
plugins-custom,jicofo,jvb,jigasi,jibri}
```
- `docker compose up -d`
- [Configure / customize](#)
- Profit!

Self-Hosted - Manual

- <https://jitsi.github.io/handbook/docs/devops-guide/devops-guide-manual>
- Manual installation is not recommended

Features

- asdfasfd