Matrix: One Year In

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Matrix?

- Open standard
- Decentralised communication
  - Instant messaging
  - Voice and video (WebRTC)
  - Generic pub-sub
- Federated servers
- The missing signalling layer for WebRTC
Matrix?

- JSON over HTTP
- Primitives
  - Users
  - Rooms
  - Events
  - Homeservers
- 2 APIs
  - Server – Server
  - Client – Server
Bridges

- IRC
  - Freenode
  - Moznet
  - Some others...
- Slack
- SMS
- libpurple
- FreeSWITCH Verto
- Asterisk Respoke
- Bridging SDK
Existing App

3rd Party Client

3rd Party Server

Application Service

matrix
Matrix?

- JSON over HTTP
- Primitives
  - Users
  - Rooms
  - Events
  - Homeservers
- 2.5 APIs
  - Server – Server
  - Client – Server
  - Application Service
    - Client – Server + super-powers
Client SDKs

- iOS
- Android
- JS
- React
- Python
- Perl

Community-contributed:

- Lisp
- Erlang
New Features

- Search
- History ACLs
- Typing notifications
- Read receipts
- Voice & Video via WebRTC
WebRTC

- Voice and video calls
- Web: Use browser’s support
- Mobile: Four separate stacks
  - Chrome WebView
  - libjingle
  - OpenWebRTC
  - Our own soon-to-be-open-sourced implementation
- FreeSWITCH Verto Application Service
  - Allows MCU
Spec

- Released client – server specification r0.0.0
- Lots of new APIs
- Lots of cleanup
- All APIs documented in Swagger
Vector

- Fully-featured, usability-driven web client
- 100% open source
- Video: 1:1 (native WebRTC) and MCU (FreeSWITCH)
- Bridges into other protocols
- End-to-end encryption coming soon
The Future

- Polishing clients
- Rewriting prototype server to scale
- Lots more bridges
- Higher fidelity bridges
- Finalising server – server API
- End-to-end encryption
What Should You Do?

● Use it for chat!
  ○ Like Slack but open source
  ○ Like IRC but more friendly
  ○ WebRTC Voice and video as standard
  ○ Plus bridging

● Use it as a protocol
  ○ Don’t make new islands!

● Bridge with us

● Run a homeserver
  ○ Or use ours

https://matrix.org/blog/try-matrix-now

https://matrix.org/docs/spec
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