[matrix]

Persistent Distributed Real-time Communication
https://matrix.org/

Matrix has clients and servers

- Users are hosted on a server.
- Users can have multiple devices connected to the same account.
- Chat history is shared between devices.
- HTTPs client API
- We have Android, iOS and Javascript clients, and more.
- Open federation between servers. So you can run your own server.

Matrix has Rooms

- Rooms have state.
  - JSON objects
  - Members, Name, Topic
  - Whatever else you want...
- Rooms have a timeline.
  - JSON objects
  - Updates to the state.
  - Messages
  - Whatever else you want...

Matrix Rooms are a Graph

- Each message has a reference to the previous message(s).
- Each message has a hash of the previous message(s).
- The entire history of the room can be recovered by following the references.

Matrix Rooms are Distributed

- Users on different servers can be in the same room
- No single point of failure for a room.

Matrix Rooms are Private

- Message are only shared with servers that have users in the room.
- Room history can be locked so that only the users that were in the room at the time can see the message

Matrix is (not) Encrypted

- Matrix servers use HTTPS with Forward Secure ciphers to talk between servers
- Message contents aren't encrypted.
    - Olm, an axolotl ratchet. https://matrix.org/git/olm/about/
- Metadata aren't encrypted
    - ????

Join us on Matrix

Specification, clients, servers at https://matrix.org/

Or signup on https://vector.im/