



## **Matrix: a new(ish) protocol for decentralised secure communication**

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# Matrix is:

- An open protocol for decentralized communication & an open federated network
- HTTP+JSON baseline transport+encoding
- Stores messages in a Merkle DAG replicated over all participating servers
- Uses “megolm” group ratchet for E2E encryption.
- => Conversations are owned equally by all participants.
- Used for: IM, VoIP, IoT, VR/AR...
- Rich baseline spec with all-the-features.
- 3-5M users today, including Thales, Ericsson, various Telcos, Governments & many geeks!

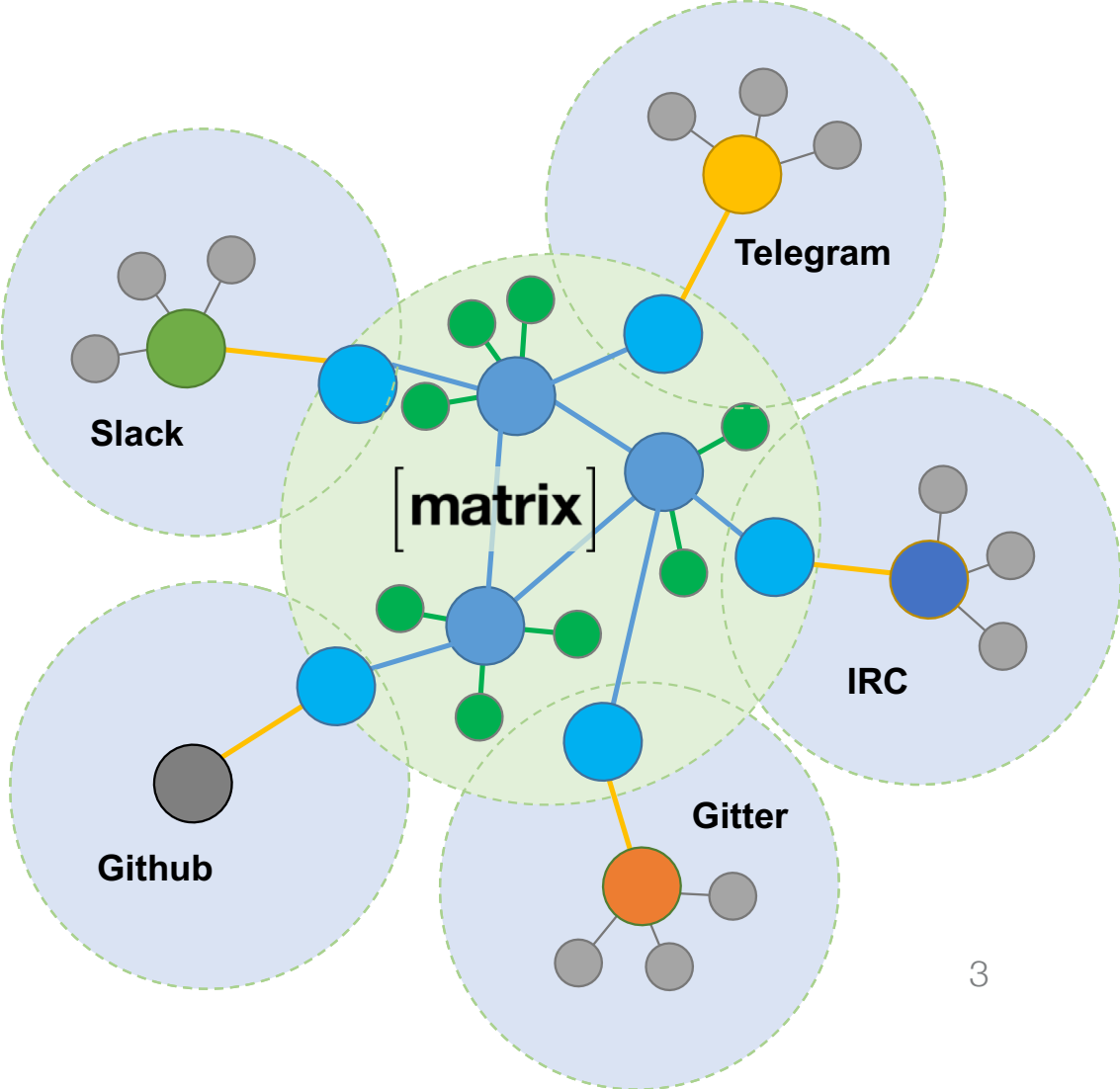
## To send a message:

```
curl -XPOST -d '{"msgtype":"m.text",  
"body":"hello"}'  
"https://alice.com:8448/_matrix/client/  
api/r0/rooms/ROOM_ID/send/m.room.message  
?access_token=ACCESS_TOKEN"  
{  
    "event_id": "YUwRidLecu"  
}
```

## To receive a message:

```
curl  
'https://bob.com:8448/_matrix/client/  
api/r0/sync?access_token=ACCESS_TOKEN'  
{...  
    {  
        "msgtype": "m.text",  
        "body": "hello"  
    }  
...}
```

[matrix]



Clients



Home Servers



Application Servers