```
                              ┌──────────┐
                              │ Glitched │
                              │ Epistle  │
                              │   DB     │
                              └──────────┘
                                   ▲
                                   │
                          ┌─────────────────┐
                          │     User:       │
                          │ ServerJwtPrivateKey │
                          │ ServerJwtPublicKey  │
                          │ ClientJwtPublicKey  │
                          └─────────────────┘
                                   ▲
                                   │
                            ┌──────────┐
                            │  Server  │
                            └──────────┘
```

(Convo passphrase as key) — Symmetric Encryption

Symmetrically Encrypted Message

Sender encrypts x copies of the message (where x is the number of recipients) with the public keys.

Sender requests all of the recipients' public keys.

Sender receives all of the recipients' public keys.

Client types plain text message and submits.

Sender Client
(Android, Windows, ...)

ClientJwtPublicKey
ClientJwtPrivateKey

(Convo passphrase as key) — Symmetric Decryption

Symmetrically Decrypted Message

Recipient decrypts his copy of the message using his private key.

Recipient can now display the plain text message on his screen.

Recipient Client
(Android, Windows, ...)

ClientJwtPublicKey
ClientJwtPrivateKey

Message

long SenderId

string SenderName

DateTime TimeStamp

string Content

byte[] Attachment

User

long Id

string Name

string Email

string Role

string PasswordSHA512

bool Verified

DateTime Expires

Convo

long Id

long CreatorId

string Name

string Description

DateTime CreationTimeStamp

string PasswordSHA512

DateTime Expires

IList<long> Participants

IList<Message> Messages

Convos can't be deleted: they will be deleted automatically when all participants left.