Message replies and chat item sequential numbers

Problem

Many chat features require referring to the previous chat items in the same conversation:

- item editing
- item deletion
- item reply (with quoting)
- delivery/read receipts
- any interactive features mutating chat item state
- group message integrity via DAG

The most in-demand feature is replies.

Proposed solution

As group message integrity is needed not for chat items, but for messages, the updated proposal is to introduce a random, non-sequential message id, unique per conversation and per sender.

All above features would rely on this ID, e.g. reply would use the ID of the message that created the item.

We will add an optional property `msgId` into all chat messages (not only visible to the users) and `msgRef` into messages that need to reference other messages.

`msgId` property is a base64 encoded 12 byte binary

JTD for quoting messages:

yaml definitions: msgRef: discriminator: type mapping: direct: properties: msgId: type: string sentAt: type: datetime sent: type: boolean # true if it is in reference to the item that the sender of the message originally sent, false for references to received items group: properties: msgId: type: string sentAt: type: datetime memberId: type: string # base64 member ID of the sender known to all group members for group chats content: properties: type: type: string text: type: string properties: msgId: string event: enum: ["x.msg.new"] params: properties: content: ref: content quote: properties: content: ref: content msgRef: ref: msgRef

This format ensures that replies with quoting show as normal messages on the clients that do not support showing quotes (`quote` property will be ignored).

The only feature that would not work in case chatItem/chatItemRef is missing is navigating to the message to which the message is in reply to.