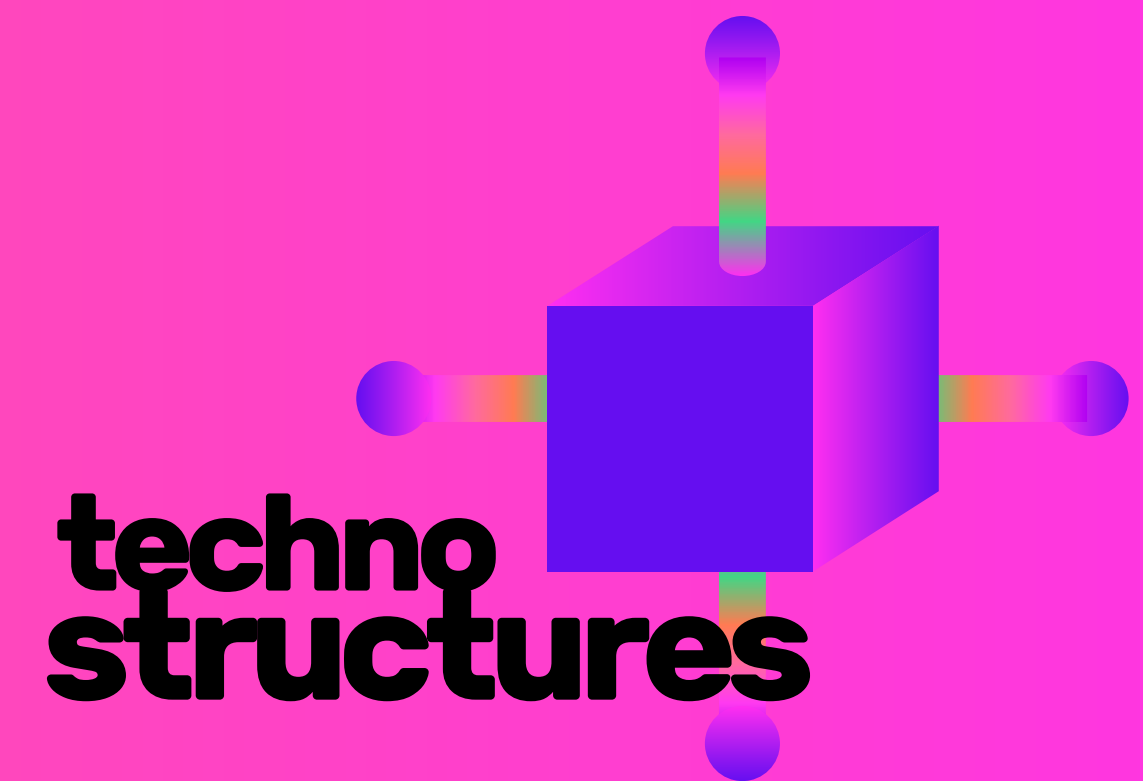


Bridging ActivityPub with Kazarma



Pierre de Lacroix
FOSDEM 2023

[m]

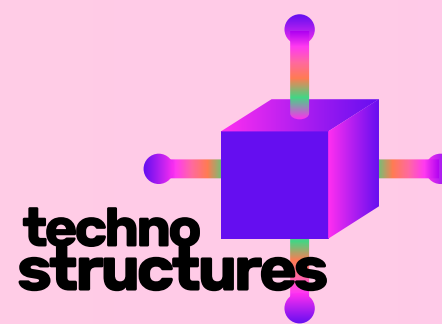


docs.kazar.ma

[#kazarma:matrix.org](https://matrix.org/join/#kazarma:matrix.org)

gitlab.com/kazarma/kazarma

mirrored on github.com/technostructures/kazarma



Genesis

<https://matrix.org/docs/guides/types-of-bridging#server-to-server-bridging>

[matrix]



🔗 Server-to-server bridging

Some remote protocols (IRC, XMPP, SIP, SMTP, NNTP, GnuSocial etc) support federation - either open or closed. The most elegant way of bridging to these protocols would be to have the bridge participate in the federation as a server, directly bridging the entire namespace into Matrix.

We're not aware of anyone who's done this yet.

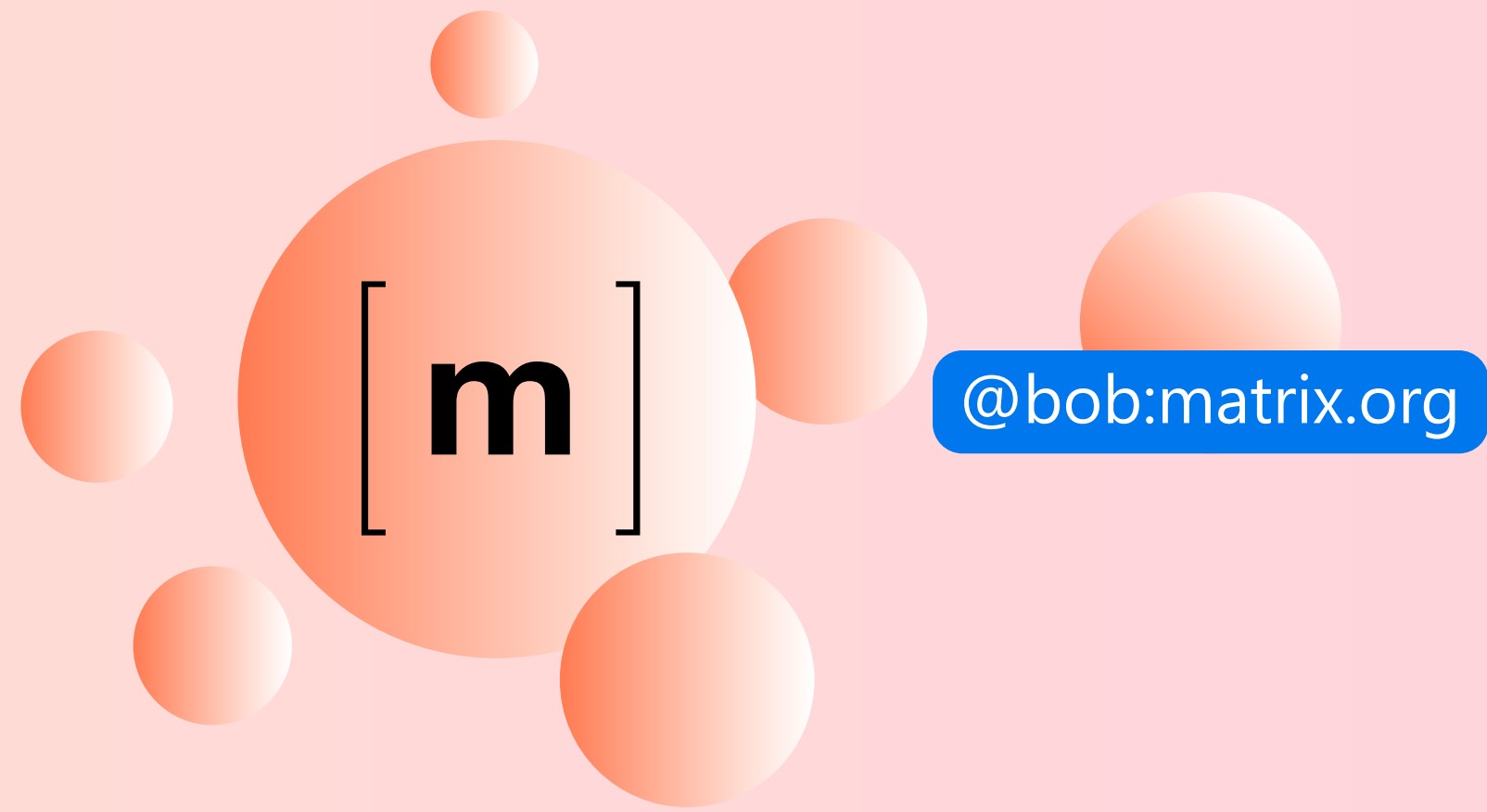
<https://news.ycombinator.com/item?id=20169611>

Y Hacker News

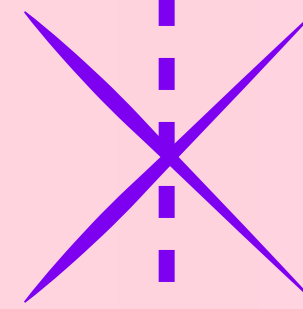
Arathorn on June 12, 2019

There isn't a particularly sophisticated ActivityPub bridge yet, but there's also nothing stopping someone from writing one.

Public bridge

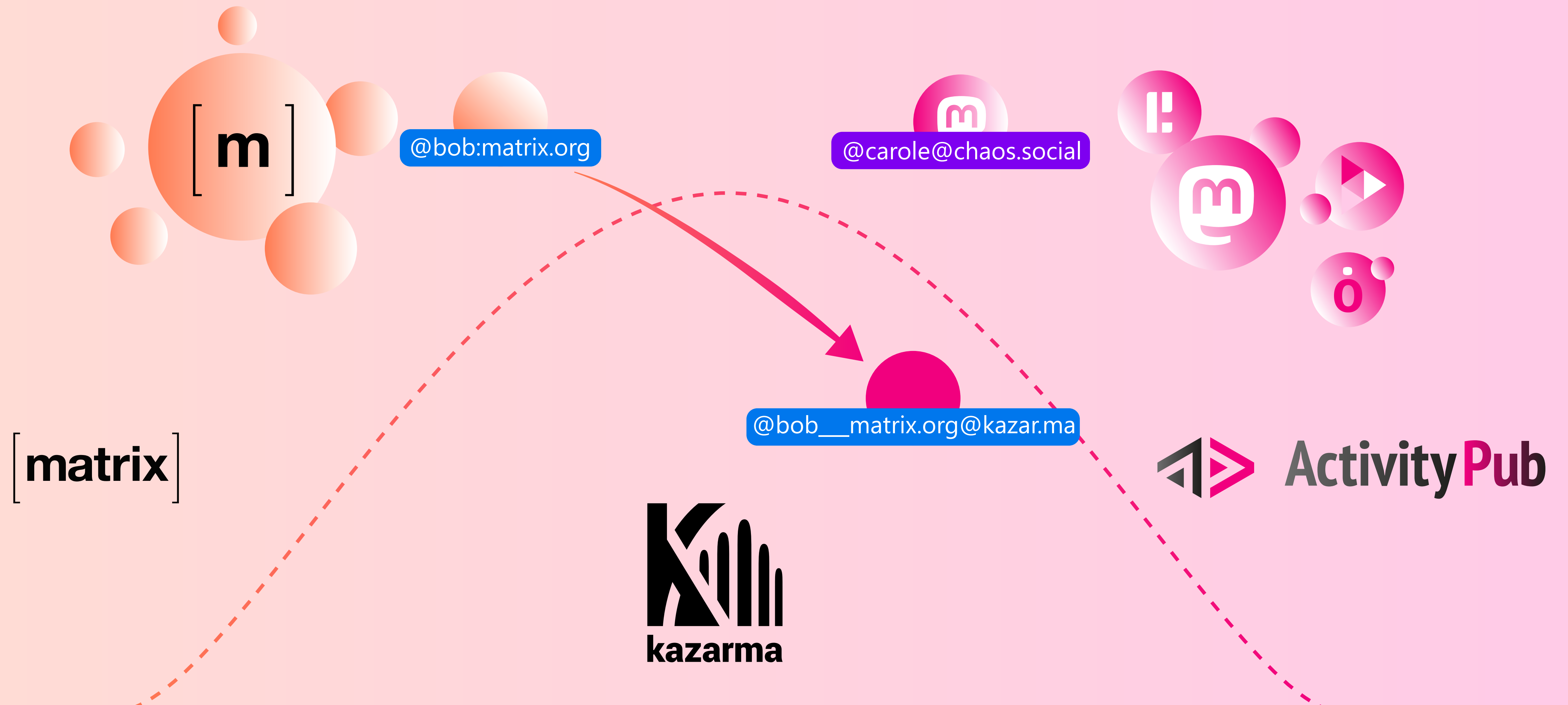


[matrix]

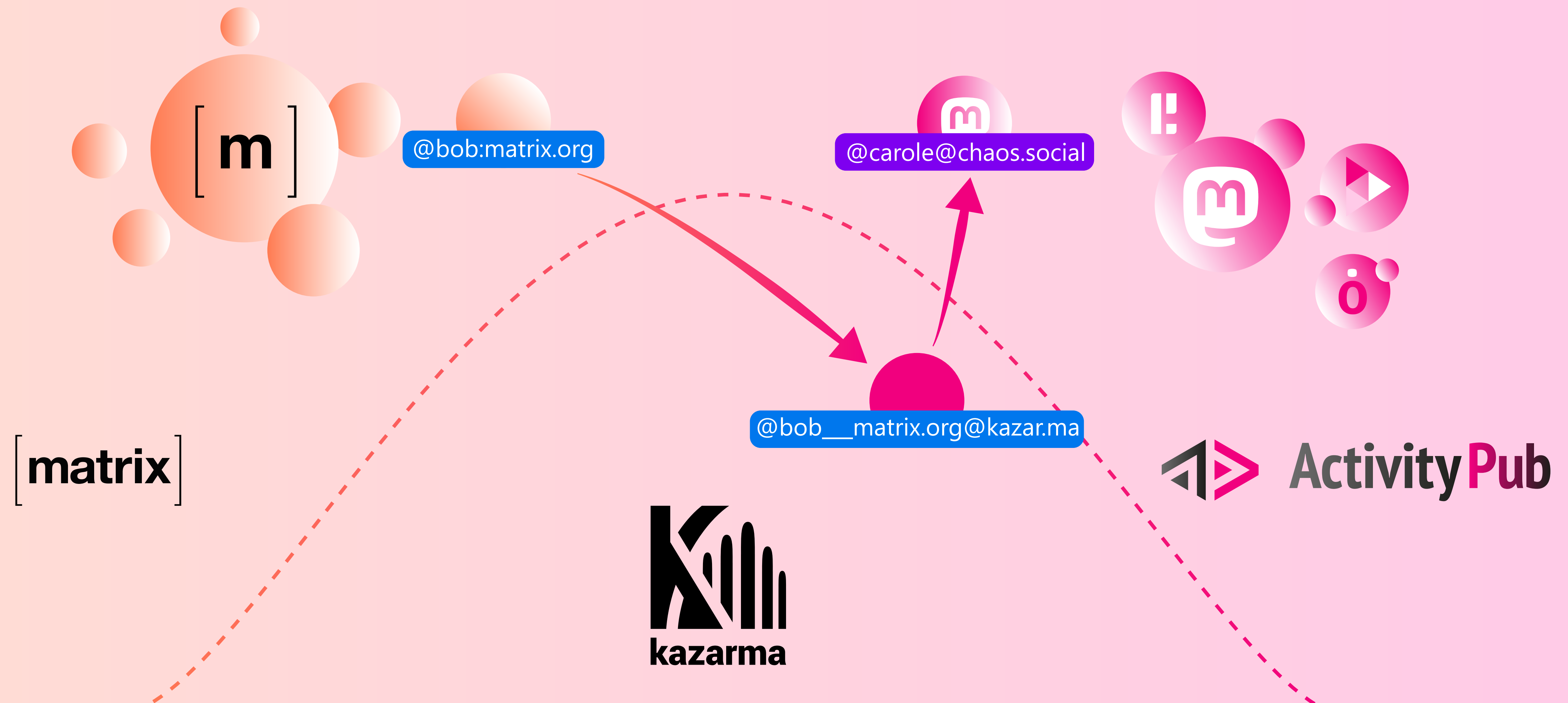


 ActivityPub

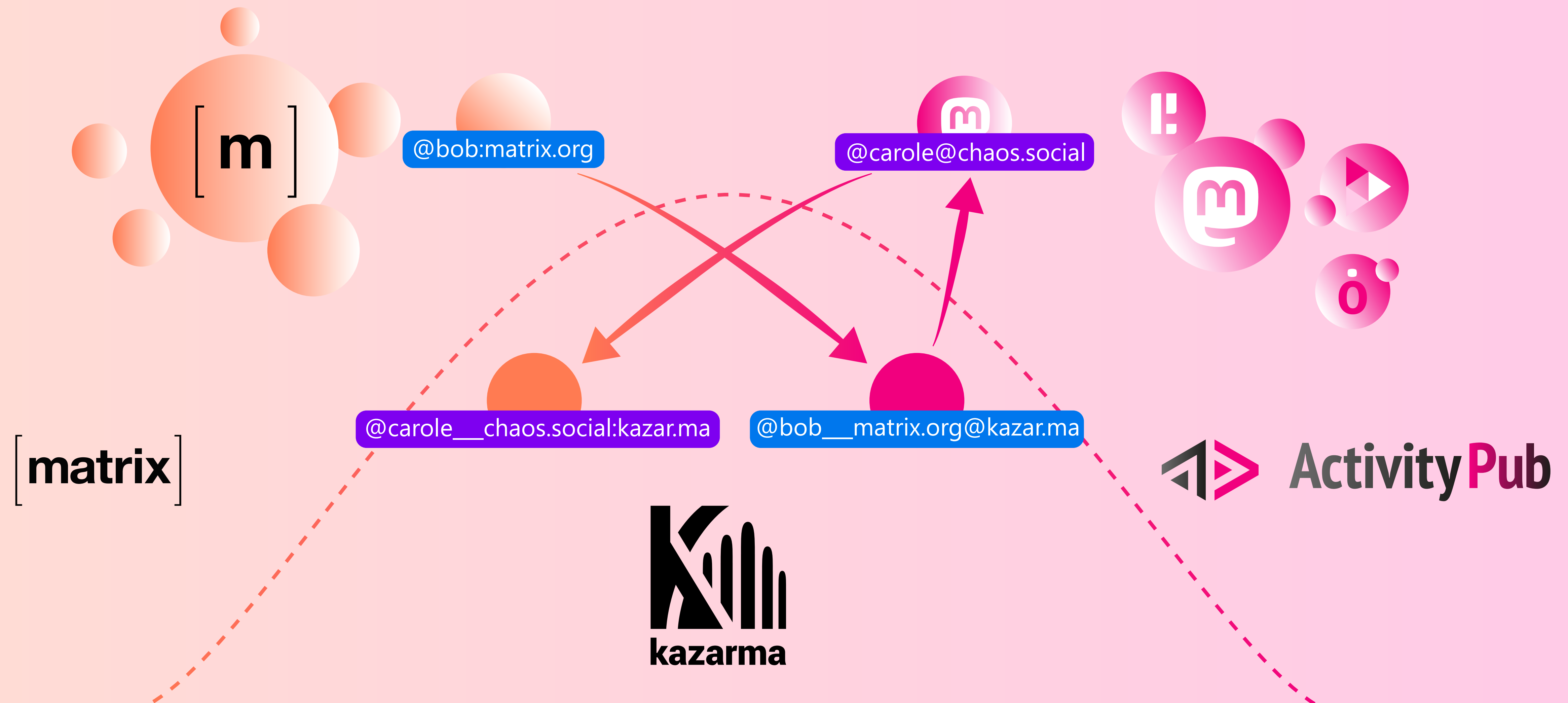
Public bridge



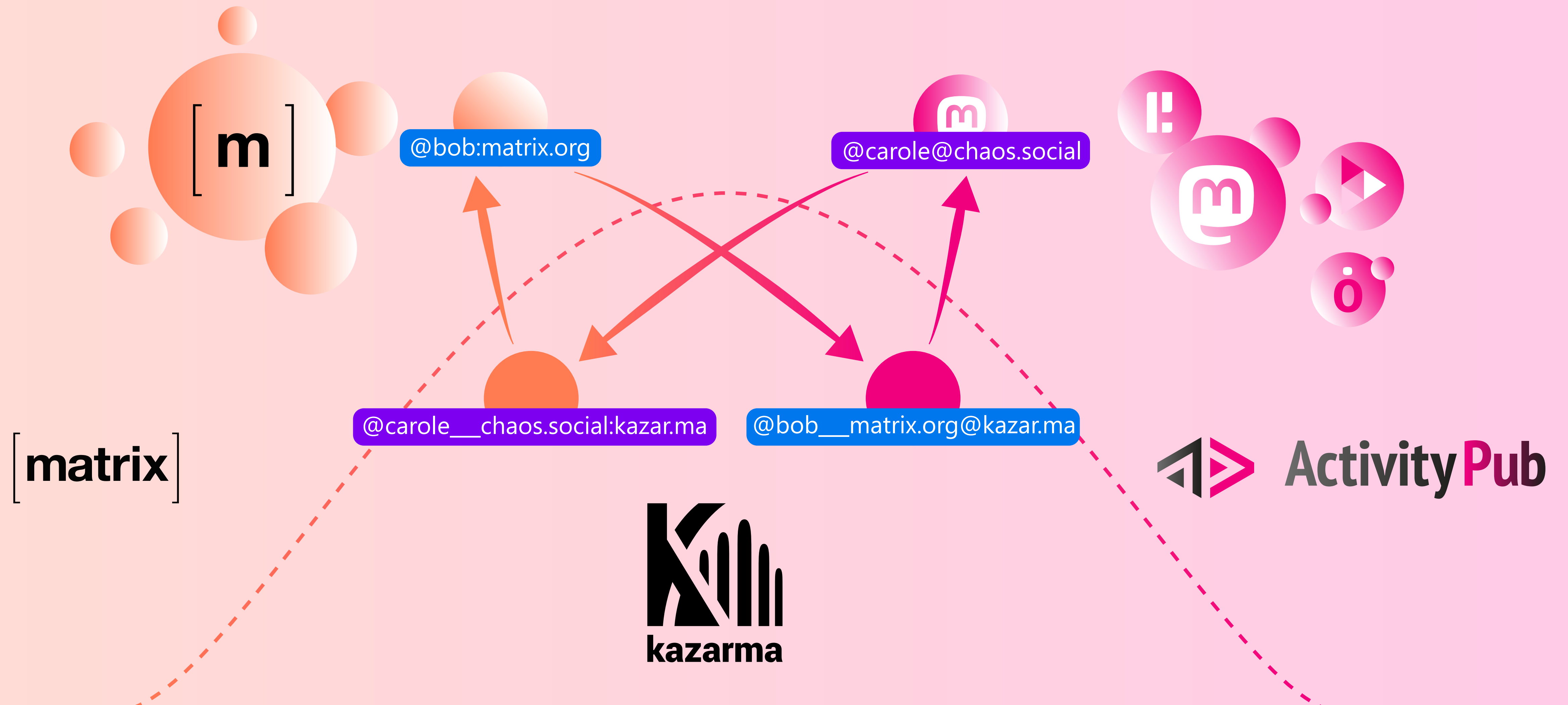
Public bridge



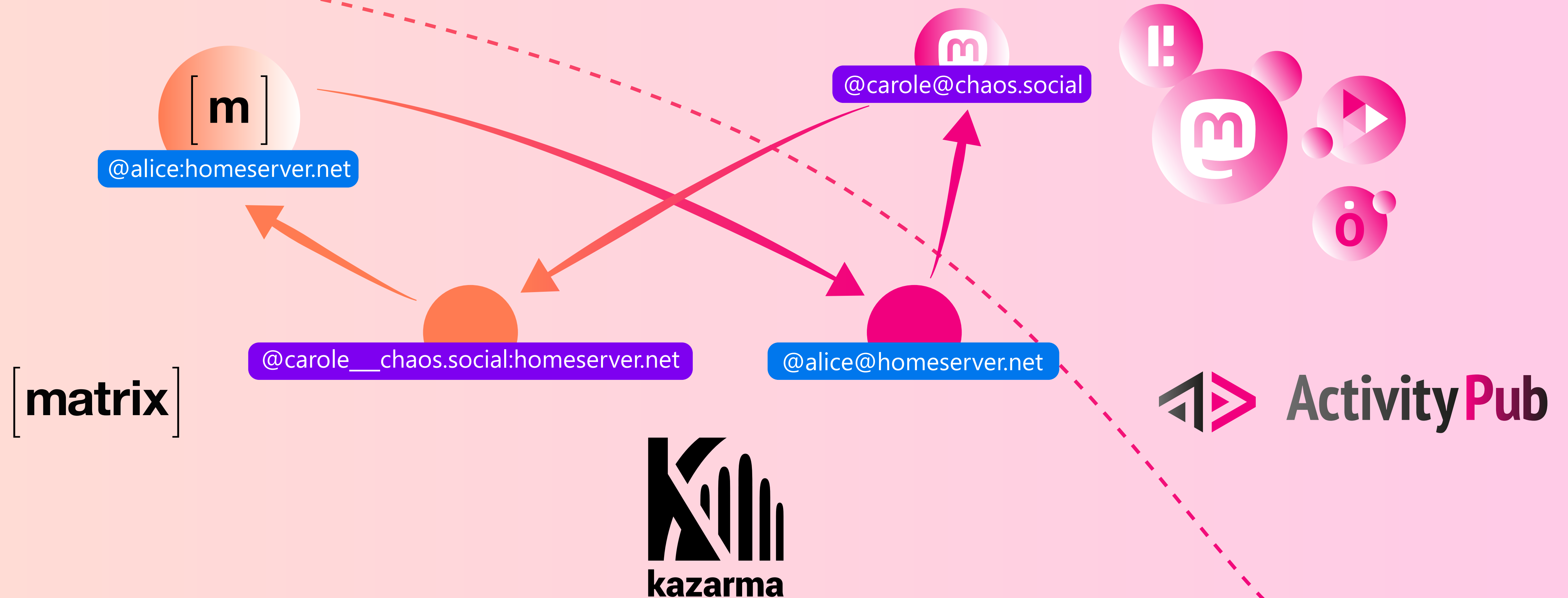
Public bridge



Public bridge




Private bridge



User search

kazarma ?

Matrix or ActivityPub identifier
@alice:homeserver.net Q


 **Alice** [m]
@alice:homeserver.net

↔ via Kazarma
@alice@homeserver.net

Matrix user search

kazarma ?

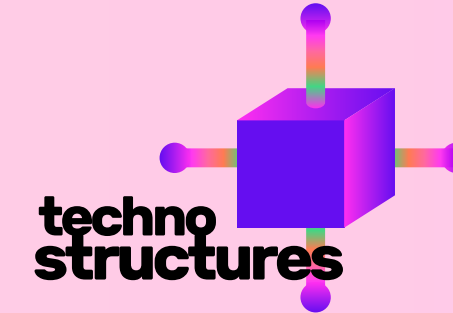
Matrix or ActivityPub identifier
@bob@chaos.social Q

 **Bob** ↔
@bob@chaos.social

[m] via Kazarma
@bob__chaos.social:kazar.ma
#bob__chaos.social:kazar.ma

ActivityPub user search

Bridging ActivityPub with Kazarma



Pleroma chat

Bob

This is the beginning of your direct message history with **Bob**. Only the two of you are in this conversation, unless either of you invites anyone to join.

Alice created this DM. [expand](#)

Alice invited Bob

Bob joined the room

Alice
Hello Bob

Bob
Hello Alice

Alice
System working?

Bob
Seems to be

Alice
OK fine

Bob
OK

Send a message...

Alice

Aujourd'hui

Hello Bob 18:33

Hello Alice 18:33

System working? 18:33

Seems to be 18:34

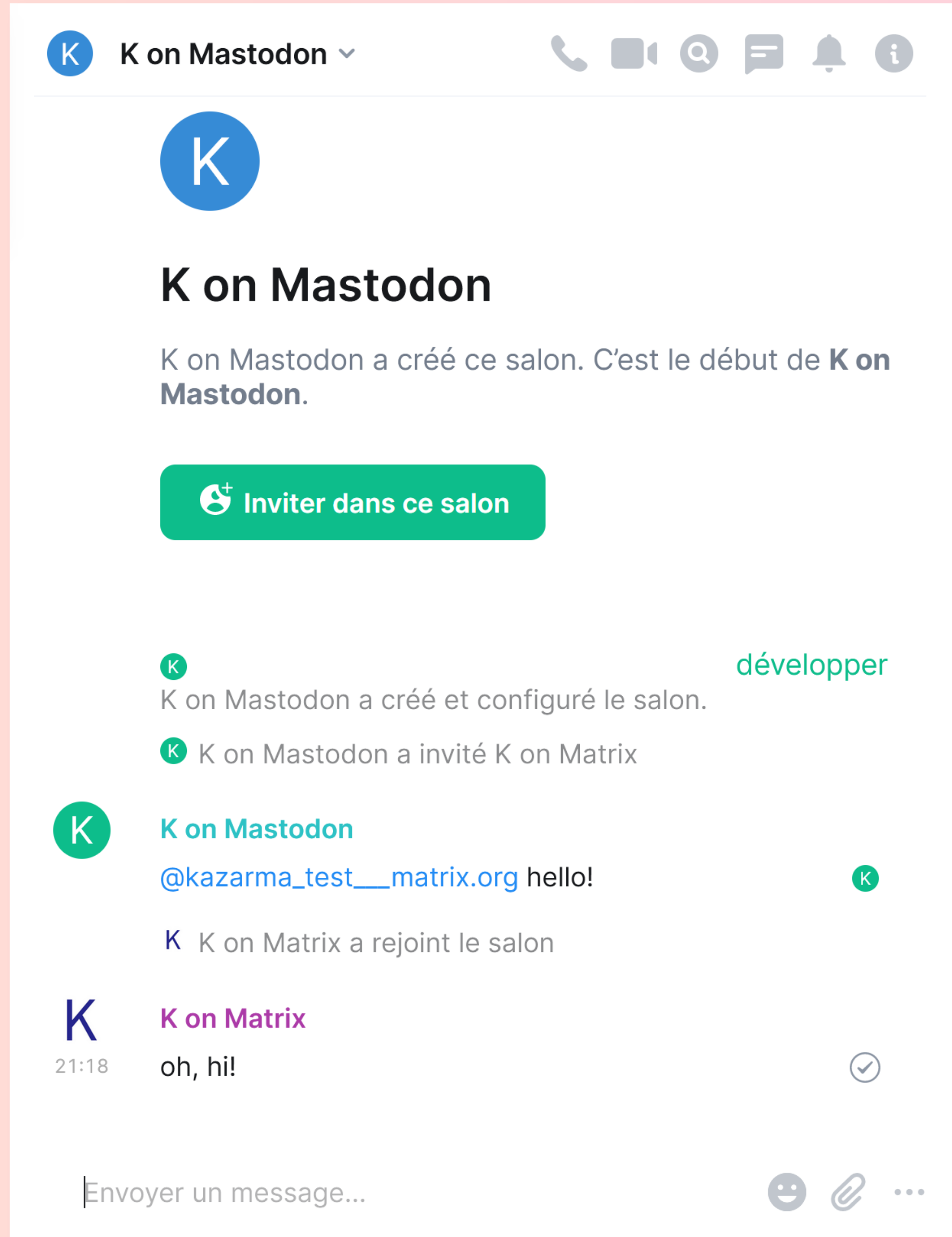
OK fine 18:34

OK 18:34

Message à alice@kazarma.kazarma.local 5000

Shoutbox

Direct messages



K on Mastodon

K on Mastodon a créé ce salon. C'est le début de **K on Mastodon**.

[Inviter dans ce salon](#)

K K on Mastodon a créé et configuré le salon. [développer](#)

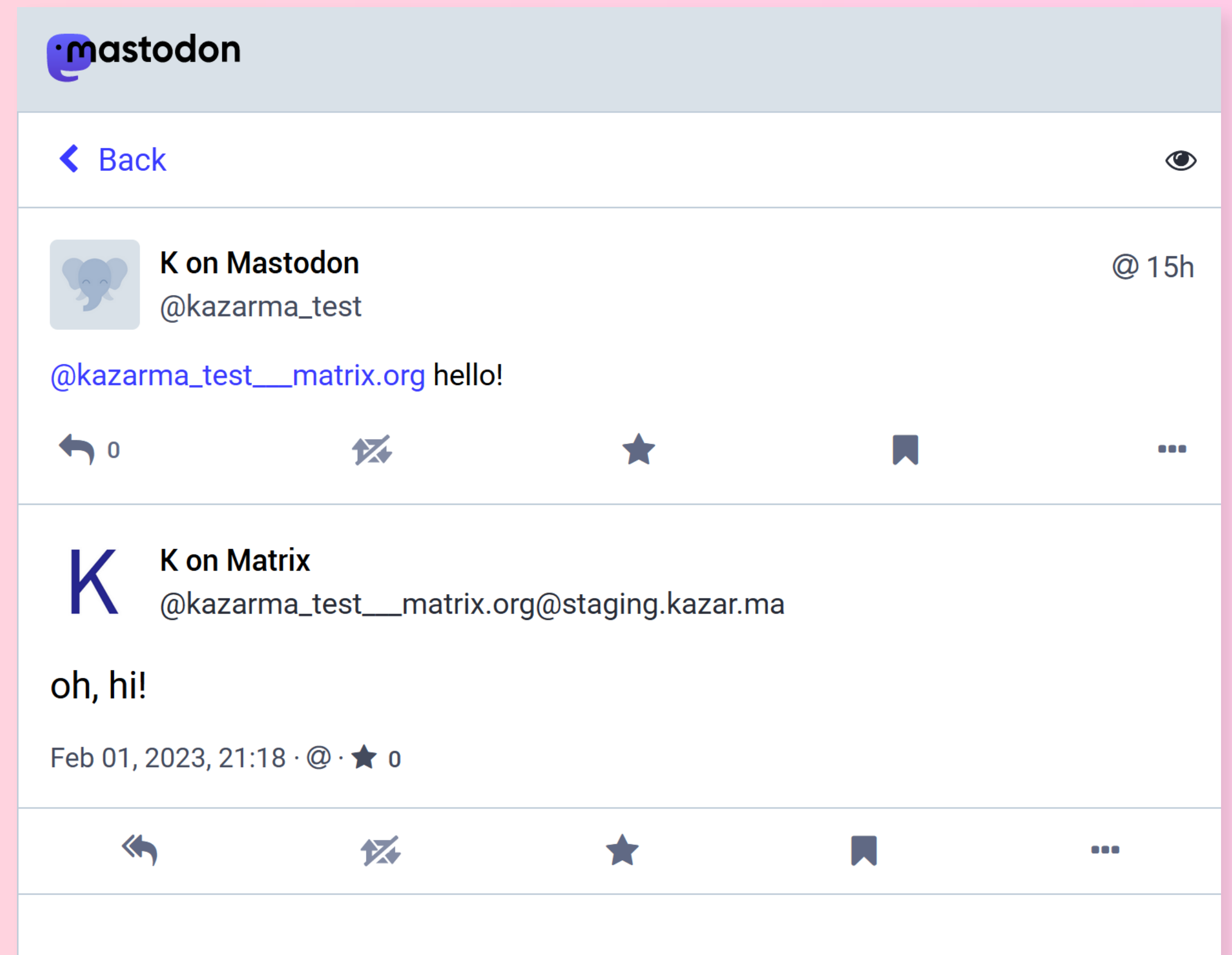
K K on Mastodon a invité K on Matrix

K **K on Mastodon**
[@kazarma_test__matrix.org](#) hello!

K K on Matrix a rejoint le salon

K **K on Matrix**
21:18 oh, hi!

Envoyer un message...



mastodon

[Back](#)

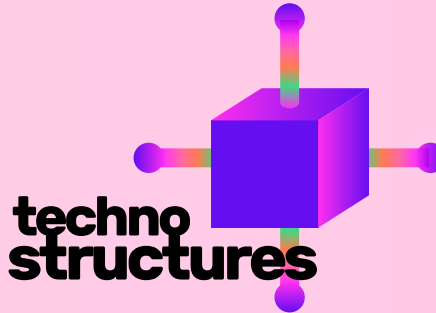
K on Mastodon @kazarma_test @ 15h
[@kazarma_test__matrix.org](#) hello!

K **K on Matrix**
@kazarma_test__matrix.org@staging.kazar.ma

oh, hi!

Feb 01, 2023, 21:18 · @ · ★ 0

Bridging ActivityPub with Kazarma



ActivityPub user rooms

K on Mastodon

K on Mastodon

K on Mastodon a créé ce salon. C'est le début de **K on Mastodon**.

K on Mastodon a créé et configuré le salon. [développer](#)

K on Mastodon
Hello World!

K on Matrix a rejoint le salon

K on Matrix
K on Mastodon
Hello World!

Welcome

21:25

Envoyer un message...

mastodon

Back

K on Mastodon
@kazarma_test@toot.io

Hello World!

Feb 01, 2023, 21:23 · Web · 0 · ★ 1

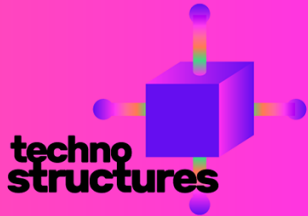
K on Matrix
@kazarma_test__matrix.org@staging.kazar.ma 15h

Welcome

0

PeerTube Recherchez des vidéos, des listes de lecture, de Q Publier

Bridging ActivityPub with Kazarma



Pierre de Lacroix
OFFDEM 2023

docs.kazar.ma
#kazarma.matrix.org
gitlab.com/kazarma/kazarma
mirrored on github.com/technostructures/kazarma

Kazarma – Presentation @ FOSDEM 2023

Publié il y a 5 min • 0 vues

👍 🗨️ PARTAGER TÉLÉCHARGER

Technostructures
Par pierre S'abonner

Presentation of Kazarma at FOSDEM 2023

Confidentialité	Publique
Catégorie	Science & Technologie
Licence	Domaine public
Langue	Inconnu
Étiquettes	
Durée	20min 43sec

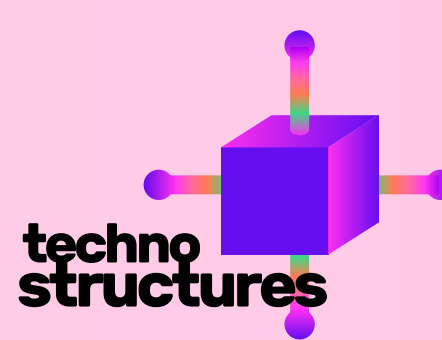
2 Commentaires TRIER PAR

Ajouter un commentaire... M+

Alice alice@kazarma.kazarma.local il y a 3 min
oh, that's interesting
Réponse

Pierre pierre il y a 2 min
@alice@kazarma.kazarma.local thanks!
Réponse

Bridging ActivityPub with Kazarma




ActivityPub user rooms

Technostructures

Technostructures created and configured the room. expand

Alice joined the room

Technostructures
Presentation of Kazarma at FOSDEM 2023
Kazarma – Presentation @ FOSDEM 2023



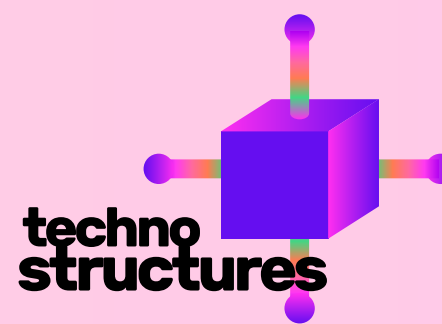
Presentation of Kazarma at FOSDEM 2023

Alice
Technostructures
Kazarma – Presentation @ FOSDEM 2023...
oh, that's interesting

Pierre joined the room

Pierre
15:05 | In reply to **Technostructures**
Alice
oh, that's interesting
Alice thanks!

Send a message...



Mobilizon groups

Technostructures

Technostructures created this room. This is the start of **Technostructures**.

[Invite to this room](#)

[collapse](#)

- Technostructures joined the room
- Technostructures made the room invite only.
- Technostructures made future room history visible to all room members.
- Technostructures has allowed guests to join the room.
- Technostructures changed the room name to Technostructures.
- Technostructures invited Alice
- 13:50 Alice joined the room

Send a message...

Mobilizon

Mes événements Mes groupes

Technostructures > Paramètres > Membres

Membres du groupe (2)

Inviter un nouveau membre [Inviter un-e membre](#)

Statut

Membre	Rôle	Date	Actions
Alice @alice@kazarma.kazarma.local	Membre	jeudi 2 février 2023 12:49	Promouvoir Exclure
Pierre @pierr	Administrateur-riche	jeudi 2 février 2023 12:44	

1-2 / 2

Summary

User search

Profile (display name, avatar)

Activities :

- Post (toots, Mobilizon discussions, Peertube comments)
- ChatMessage (Pleroma)
- Video (Peertube)
- Events (Mobilizon)

Room types :

- ActivityPub rooms (WIP)
- Matrix rooms (WIP)
- Mobilizon groups as private rooms
- Private rooms as DMs
- Direct rooms as Pleroma chat

Replies, Attachments, Mentions

matrix_app_service.ex

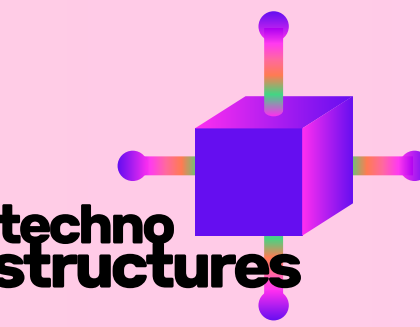
```
# configuration
config :matrix_app_service,
  internal_supervisor: true,
  transaction_adapter: MyBridge.Transaction,
  path: "/matrix",
  base_url: "http://synapse:8008",
  access_token: System.fetch_env!("APPSERVICE_ACCESS_TOKEN"),
  homeserver_token: System.fetch_env!("APPSERVICE_HS_TOKEN")
```

```
defmodule MyBridge.Transaction do
  alias MatrixAppService.Event

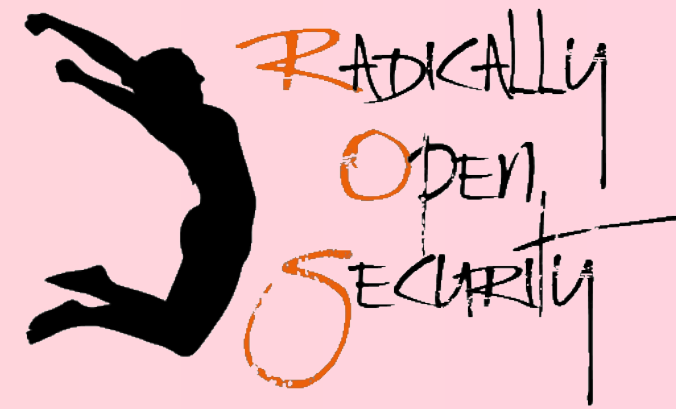
  def new_event(%Event{
    type: "m.room.message",
    room_id: room_id,
    user_id: user_id,
    content: %{"msgtype" => "m.text", "body" => "!my_bridge " <> rest}
  }) do
    # ...
  end

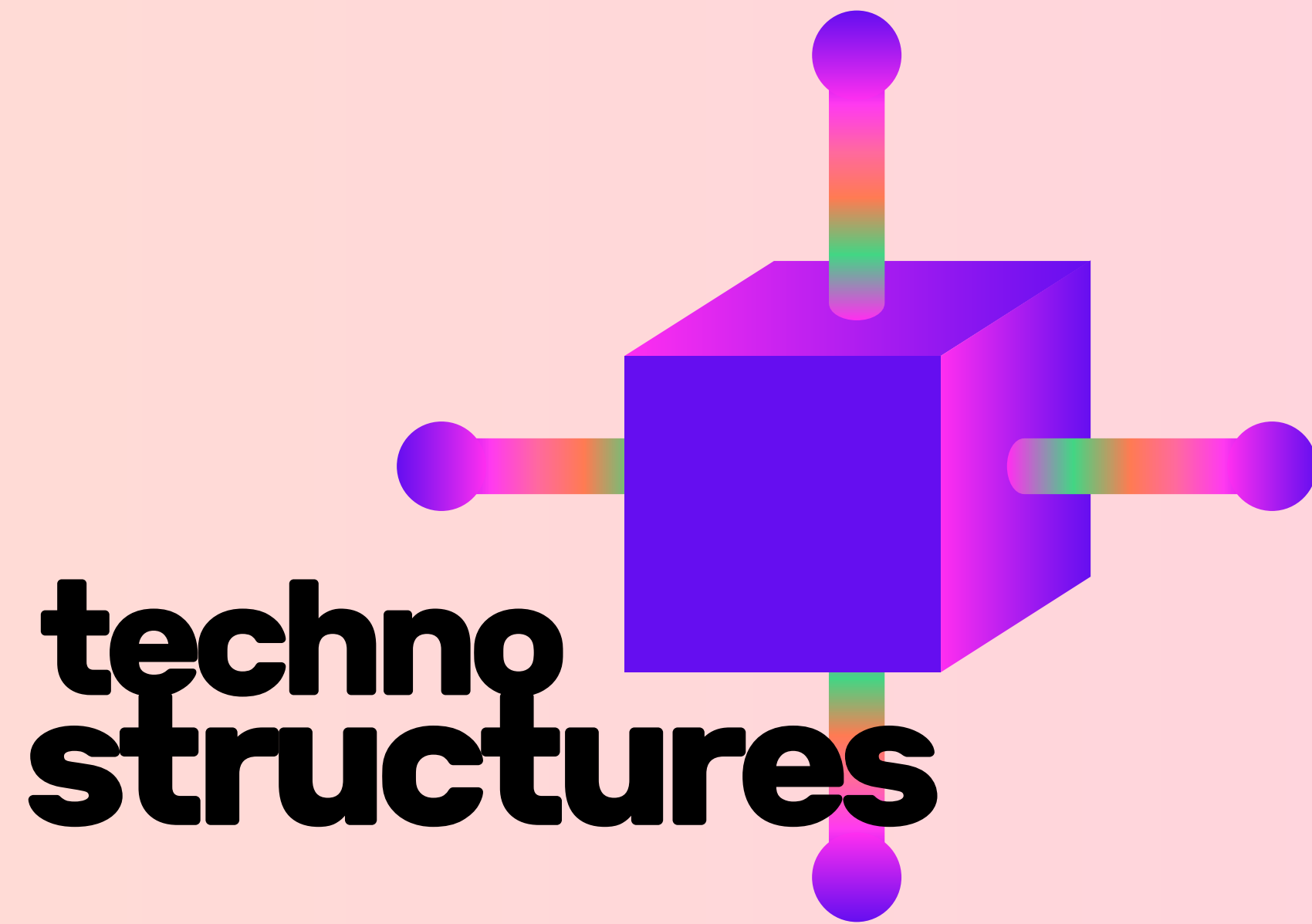
  def new_event(%Event{
    type: "m.room.message",
    room_id: room_id,
    user_id: user_id,
    content: content
  }) do
    # ...
  end
end
```


Bridging ActivityPub
with Kazarma



Thanks

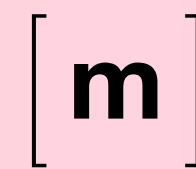




technostructures.org



contact@technostructures.org



#technostructures:matrix.org



@technostructures@chaos.social