

AT PRO TO COI

(THIS IS A BOF)

FOSDEM 2025
dietrich ayala



01 . 02 . 2025

(THIS IS A BOF)

AGENDA

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WHATPROTO?

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WHENCE / WHY

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ARCHITECTURE

09

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EXAMPLERY

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CHATCHAT

WHENCE /
WHY



Welcome to the *social internet.*

The image shows a screenshot of the Bluesky mobile application. At the top, there is a navigation bar with tabs: 'Following' (grayed out), 'For You' (selected, underlined in blue), 'Art', and 'Friends'. Below the navigation bar, a post from a user named 'soul nate' (@mnateshyamalan.bsky...) is displayed. The post contains the text: 'in the 90's, computers would scream every time you went online. that's called foreshadowing'. Below the text are engagement metrics: 54 replies, 3k retweets, 8.1k likes, and three more options represented by dots. A reply from another user, 'Emily' (@emily.esb.lol), is partially visible below the post. The profile picture of 'soul nate' is a portrait of a man with glasses.

Bluesky is **social media as it should be.**
Find your community among millions of users, unleash your creativity, and **have some fun again.**

[Log In or Sign Up](#)

The image shows a screenshot of the Bluesky mobile application. At the top, there is a navigation bar with tabs: 'Following' (grayed out), 'For You' (selected, underlined in blue), 'Art', and 'Friends'. Below the navigation bar, a post from a user named 'Saeed Jones' (@theferocity.bsky.social) is displayed. The post contains the text: 'In 2013, BuzzFeed installed a cold brew machine in the NYC office. I was working in SF at the time. Just from watching the slack, I could tell something was off. People were...'. Below the text are engagement metrics: 54 replies, 3k retweets, 8.1k likes, and three more options represented by dots. The profile picture of 'Saeed Jones' is a portrait of a man with dark hair.

[Home](#)[Search](#)[Notifications](#)[Chat](#)[# Feeds](#)[Lists](#)[Profile](#)[Settings](#)[New Post](#)[Daily](#) [Following](#) [Popular With Friends](#) [Discover](#) [Mutuals](#) [Latest From Follows](#)

AT Protocol Fan Account @atprotocol.dev · 57m
#atproto at @fosdem.bsky.social #FOSDEM

There's a BOF room on Saturday as well. Thanks Dietrich @burrito.space



dietrich @burrito.space · 7h

Lovely night of chatting about @atproto.com with all stripes at #FOSDEM.

the tables were filled with 20+ folks from the Dweb, Mozilla, Solid and more

thanks to Zer0 who brought his DIY programmable bum bag and hung it up as a room-scale discovery mechanism

[Search](#)[Daily](#)[Following](#)[Popular With Friends](#)[Discover](#)[Mutuals](#)[Latest From Follows](#)[Latest From Mutuals](#)[Quiet Posters](#)[Catch Up](#)[News](#)[Des/Viz/III/Gen](#)[More feeds](#)[Feedback](#) • [Privacy](#) • [Terms](#) • [Help](#)

BUT IT JUST LOOKS LIKE TWITTER



Daily Following Popular With Friends Discover Mutuals Latest Frc

Protocol F... un... dev · 57m

#atproto at @fossim.bsky.social #FOSDEM

There's a BOF room on Saturday as well. Thanks Dietrich

dietrich

.space ·

Lovely night of chatting about @atproto.com with all stripes at
#FOSDEM.



Home

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Latest From Mutuals

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Cat...

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News

Des/Viz/III/Gen

More feeds

Feedback • Privacy • Terms • Help



Bluesky
@bsky.app

this is how it feels to reach 30 MILLION users!



January 29, 2025 at 5:21 AM 🌐 Everybody can reply

15.8K reposts **1.7K** quotes **207.7K** likes



Jay 🦋
@jay.bsky.team

Getting real close to a billion posts

999.86M

Total Posts

February 1, 2025 at 6:06 AM 🌐 Everybody can reply

534 reposts **115** quotes **6.3K** likes

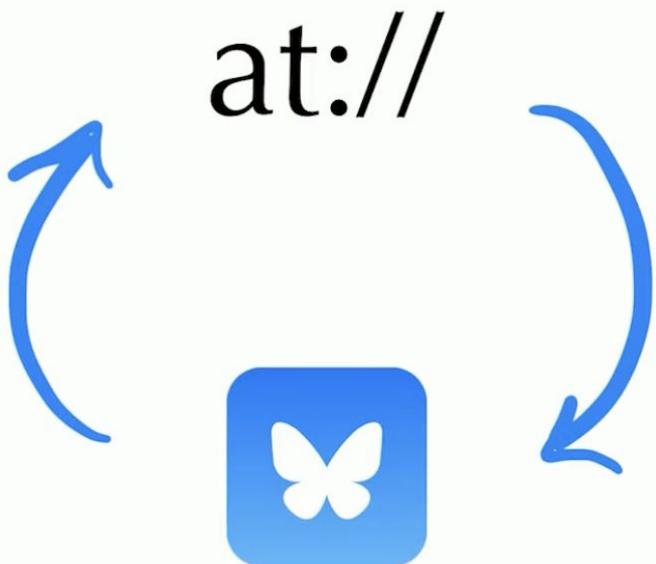
284

649

6.3K



REACT UNIVERSE CONF 2024



powered by

{callstack}



18:32 / 40:20





Dan Abramov
Bluesky

WEB WITHOUT WALLS

A video player interface with a purple gradient background. It includes a play button, volume control, timestamp (0:04 / 40:20), and various video settings like closed captions (CC), resolution (HD), and aspect ratio (square).

Web Without Walls – Dan Abramov | React Universe Conf 2024

? WHAT
PROTO



← → C



https://atproto.com



999



Find something...

⌘K

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PDS Self-Hosting

Welcome to the Atmosphere

The AT Protocol is an open, decentralized network for building social applications.

Quickstart →

Explore SDKs

Guides

Quickstart

Create an application and start building.

[Read more →](#)

Self-host

Learn how to set up your own personal data server.

[Read more →](#)

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≡ AT Protocol

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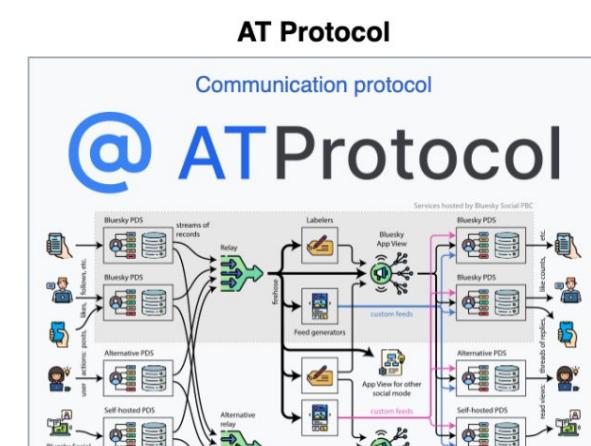
From Wikipedia, the free encyclopedia

For modem commands, see [Hayes AT command set](#).

The **AT Protocol** (**Authenticated Transfer Protocol**, commonly shortened to **ATProto**)^{[1][2]} is a [protocol](#) and [open standard](#) for [distributed social networking services](#).^[3] It is under development by [Bluesky Social PBC](#), a [public benefit corporation](#) originally created as an independent research group within [Twitter](#) to investigate the possibility of decentralizing the service.^[4]

The AT Protocol aims to address perceived issues with other decentralized protocols, such as [user experience](#), [platform interoperability](#), [discoverability](#), [network scalability](#), and [portability of user data and social graphs](#).^[3] It employs a modular [microservice](#) architecture and a [federated](#), [server-agnostic user identity](#) to enable movement between protocol services, with the goal of providing an [integrated online experience](#).^[5] Platforms can access and serve any user content within the network by [fetching](#) content formatted as predefined [data schemas](#) from federated network-wide [data streams](#).^{[6][7]}

The AT Protocol powers the [Bluesky](#) social network, which was created as a [proof of concept](#) for the protocol, and is the main service in an ecosystem of platforms and services built on the AT Protocol referred to as the [ATmosphere](#).^{[8][9][10]} Bluesky Social has pledged^[year needed] to transfer the protocol's development to a standards body such as the [Internet Engineering Task Force \(IETF\)](#) in the near future.^[11]



A diagram of the AT Protocol federation architecture as of October 2024.

Abbreviation ATProto

Purpose Distributed social network

≡ AT Protocol

Article [Talk](#)

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BLOG CONTACT

How decentralized is Bluesky really?

By Christine Lemmer-Webber on Fri 22 November 2024

Recently due to various events (namely a lot of people getting off of X-Twitter), [Bluesky](#) has become a lot more popular, and excitement for its underlying protocol, [ATProto](#), is growing. In the present-day fediverse, I often get usually head-down focused on business things except in private channels.

This debate has been growing here [about decentralization until they](#) ATProto and arguing that other platforms are more decentralized productively, and so I figured it would be good to have a core Bluesky developer that thinks about these thoughts.

Let us open with a framing. Decentralization is not the center. "Federation", as has been argued by others, is the center. ActivityPub, though I would argue that it is not the center, is a critical part of the decentralization ecosystem.

Reply on Bluesky and Decentralization

@bnewbold.net

11/27/2024, 3:50:54 AM

This is a reply to Christine's post [about decentralization until they](#) ATProto and arguing that other platforms are more decentralized productively, and so I figured it would be good to have a core Bluesky developer that thinks about these thoughts.

I am so happy and grateful that Christine has brought up this topic. Her work on Bluesky and the Bluesky project, and raises important questions about the future of the platform.

Re: Re: Bluesky and Decentralization

By Christine Lemmer-Webber on Fri 13 December 2024

ARCHI TECTURE

Et has nulla intellegat. Ea vix equidem abhorreant deseruisse. Et has nulla intellegat. Ea vix equidem abhorreant deseruisse.



AT Protocol

文 4 languages ▾

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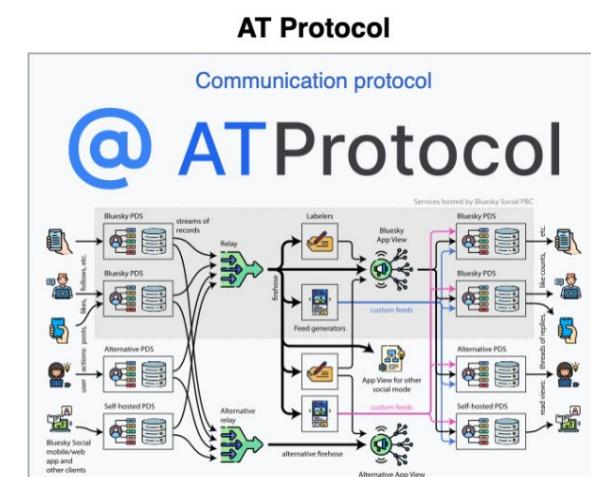
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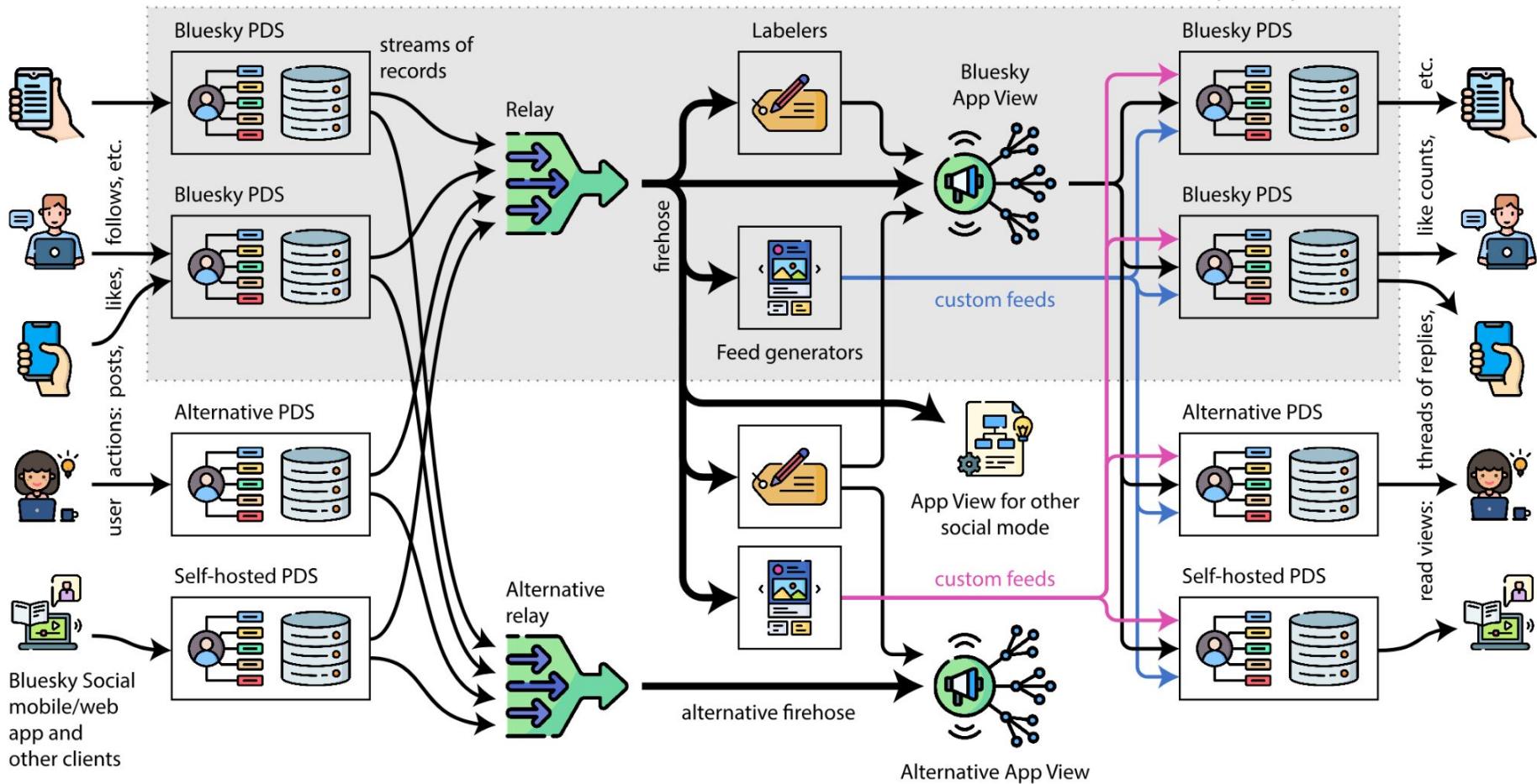
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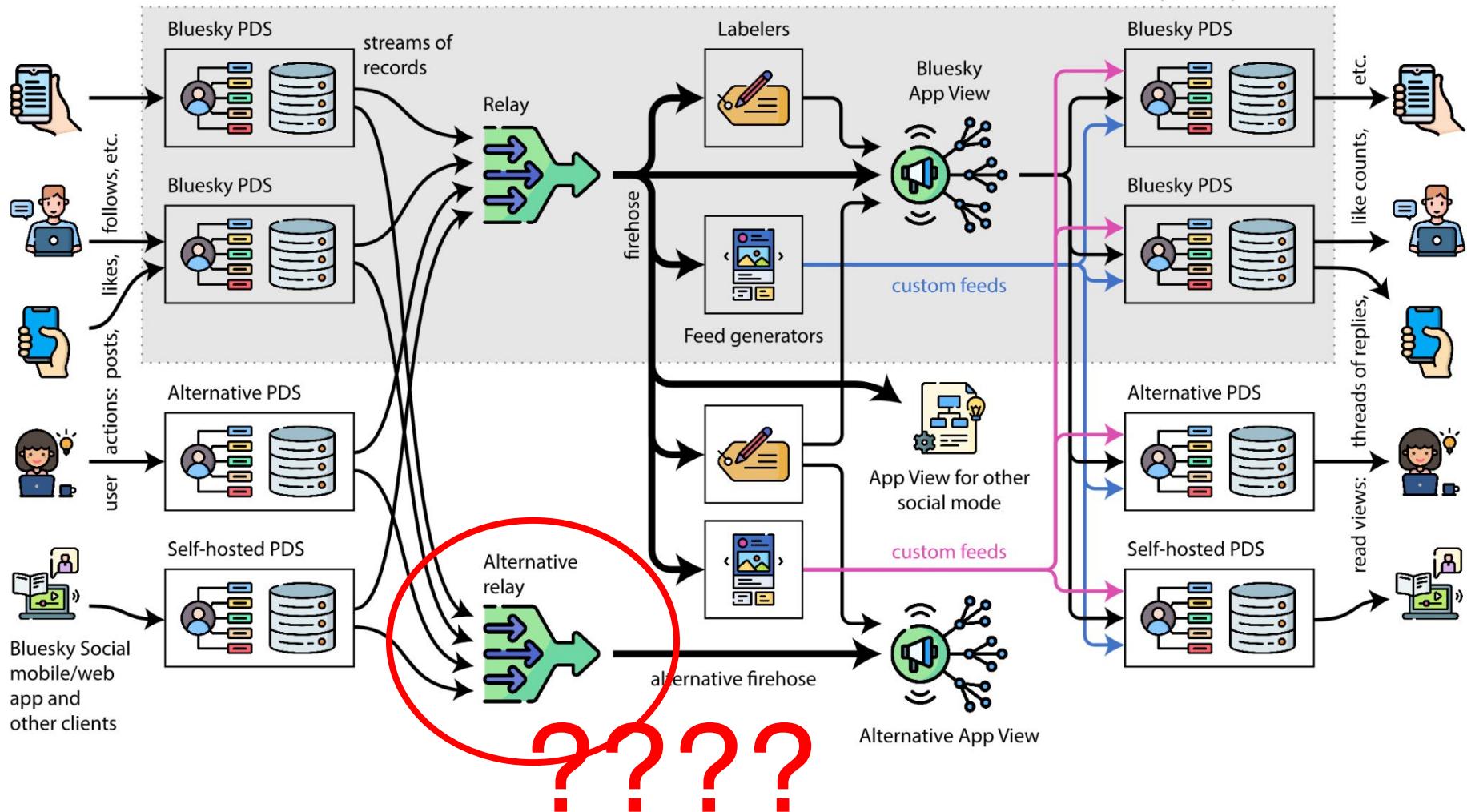


A diagram of the AT Protocol federation architecture as of October 2024.

Abbreviation ATProto

Purpose Distributed social network





[← Post](#)

Paul Frazee
@pfrazee.com

Programmers! If you want to hear me get way into the weeds of how ATProto works, this is the podcast for you!



Jeremy Jung @jeremyjung.com · 16d

Hi bluesky! If you're curious about the technical details of how this place works I think you'll enjoy my chat with @pfrazee.com!

www.softwaresessions.com/episodes/atp...

Paul Frazee on Bluesky and ATProto

Building a decentralized social network

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Quick start guide to building applications on AT Protocol



Find the source code for the example application on GitHub.

In this guide, we're going to build a simple multi-user app that publishes your current "status" as an emoji. Our application will look like this:

Statusphere

Set your status on the Atmosphere.

Hi, Alice. What's your status today?

Log out



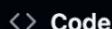


https://github.com/bluesky-social/statusphere-example-app

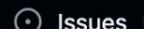


bluesky-social / statusphere-example-app

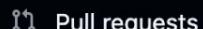
Type / to search



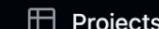
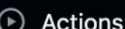
Code



Issues 7



8



statusphere-example-app

Public



7



43



Star 173



main



7 Branches



0 Tags



Go to file



matthieusieben add LICENSE file

eff56ee · last week

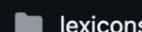
97 Commits



.vscode

Initial commit

7 months ago



lexicons

fix the oauth flow by adding the label def a...

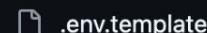
3 months ago



src

fix the oauth flow by adding the label def a...

3 months ago



.env.template

Update .env.template

6 months ago



.gitignore

Initial commit

7 months ago



.nvmrc

Initial commit

7 months ago



LICENSE

add LICENSE file

last week

About

An example atproto application using ExpressJS and Typescript.

Readme

MIT license

Activity

Custom properties

173 stars

7 watching

43 forks

Report repository

Releases



←

→ C



https://atproto-browser.vercel.app

Enter an AT uri:

 Go

eg. <at://did:plc:2xau7wbgdq4phuou2ypwuen7/app.bsky.feed.like/3kyutnrmg3s2r>

Developed by [@tom.frontpage.team](#). [Source code](#)



← →



https://pdsls.dev



999



i Add "pdsls.dev" as an application for web+at links?

Add application



PDSls



PDS URL or AT URI

Go

Browse the public data on [AT Protocol](#).

You can optionally login to manage the records in your repository.

Search inputs allowed:

PDS URL:

<https://pds.bsky.mom>

AT URI (at:// optional, DID or handle alone also works):

<at://did:plc:oisofpd7lj26yvgiivf3lksi/app.bsky.feed.post/3l2zpbhuvw2h>

Bluesky Link (posts and profiles):

<https://bsky.app/profile/mary.my.id/post/3kenlltvus2u>



README

License

Apache-2.0 license

MIT license

Self-hosting PDS

Self-hosting a Bluesky PDS means running your own Personal Data Server that is capable of federating with the wider Bluesky social network.

Preparation for self-hosting PDS

Launch a server on any cloud provider, [Digital Ocean](#) and [Vultr](#) are two popular choices

Ensure that you can ssh to your server and have root access

Server Requirements

- Public IPv4 address
- Public DNS name
- Public inbound internet access permitted on port 80/443

Server Recommendations

Operating System	Ubuntu 22.04
Memory (RAM)	1 GB
CPU Cores	1
Storage	20 GB SSD
Architectures	amd64, arm64
Number of users	1-20

TOOLS

Lorem ipsum dolor sit amet, quo graecis expetenda reprehendunt et. Et has nulla intellegat. Ea vix equidem abhorreant deseruisse. Lorem ipsum dolor sit amet, quo graecis expetenda reprehendunt et. Et has nulla intellegat. Ea vix equidem abhorreant deseruisse.

labelers
feed generators
self-hosting infra and related
other tools, services, platforms

EXAMPLE
GALERY



✓ Following

...

WhiteWind

@whtwnd.com

1.5K followers 1 following 47 posts

WhiteWind is a Markdown blog service (AppView) which uses atproto.

whtwnd.com/about

Usage:

whtwnd.com/knksm5.final...

Repo:

github.com/whtwnd/white...



Followed by Mike Masnick, Jay, and 59 others

Posts

Replies

Media

Videos

↪ Reposted by WhiteWind

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- More feeds

[Feedback](#) • [Privacy](#)



Home Help Blog

Smoke Signal

Find events, make connections, and create community.

The Quick Start Guide has a step-by-step guide to getting started!

Upcoming

Recently Created

AgreeableFM Presents 24-Hour Tired People



February 1 • 9pm - 11pm CST @asperasbompar.bsky.social ★ 0 ⏱ 1 ⚡ 0

This is a totally fake event created as proof of concept.

thirdspace: 333 open decks [washington, dc]



February 2 • 6pm - 10pm EST @znl.fyi ★ 0 ⏱ 0 ⚡ 0

hey, it's znl! at the end of each thirdspace party, we trade off every 3 tracks. i got this idea from a night at phlote in baltimore, and four hour ...



Zicklag

@zicklag.katharos.group

Changed Handle

Me and @zeu.dev are working on #roomy with a grant from @skyseed.fund.

Now we have minimal synchronization for direct messages!

All data is synced locally and with your PDS. It currently uses inefficient polling, but all communication is between your browser and your PDS's with no central service!

The screenshot shows the Direct Messages screen of a social media application. On the left, there's a sidebar with user icons and a 'Create DM' button. The main area shows a conversation with 'nandi.weird.one'. The messages are:

- nandi.weird.one 1/30/2025, 9:06:52 PM: Hello!
- nandi.weird.one 1/30/2025, 9:09:37 PM: i see you
- zicklag-test.bsky.social 1/30/2025, 9:09:54 PM: 😲 No way!!
- nandi.weird.one 1/30/2025, 9:10:25 PM: we have sync

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Streamplace

@stream.place

103 followers 2 following 6 posts

Solving video for everybody forever. Starting with live video on the AT Protocol.



Followed by Laurens, Boris, and 6 others

Posts

Replies

Media

Videos

↳ Reposted by Streamplace



Laurens @laurenshof.online · 17h

New: Last Week in the ATmosphere

Lots of experimentation going on in the ATProto dev community, some

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Catch Up



News

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brendan

@schlage.town

New landing page on what we're building for Bluesky!

TL;DR — a tool for social docs; longform on atproto — think Medium or Google Docs, but where comments = Bluesky posts

Coming soon to [@leaflet.pub](#)...want to be the first to try? Publish docs/essays/more & start conversations?

✨  SIGN UP HERE  ✨

The image shows a Bluesky post by brendan (@schlage.town). The post features a central image of a painting with swirling blue and white clouds. Overlaid on this image is a light blue rectangular box containing text. The text reads:
Leaflet: Longform for Bluesky
*social docs, like open Medium...
publish where your people are!*

Below this, in smaller text, it says:
Leaflet is a tool for making and sharing fast, fun, expressive docs.
Now we're making it social, with comments built on Bluesky.

Bring your posts to the party; talk where you're already talking.

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Latest Fron

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More feeds



bryan newbold
@bnewbold.net

nice, an independent image/blob service for atproto (eg, for building a CDN)

fwiw, bluesky builds on imgproxy (which is open source), and any of these components could be combined with cheap CDN services like fastly or cloudflare for small indie projects

⌚ PinkSea @pinksea.art · 4d

PinkSea is now running on top of a custom ATProto image proxy! we've ditched cdn.bsky.app to be more reliant on only ourselves and introduced [github.com/shinolabs/ha...](https://github.com/shinolabs/harbor) instead

please try out the site and let me know how it feels :)

shinolabs/harbor

Harbor is where the ships come to rest at the pink sea.



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- Latest From Mutuals
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- 📰 News
- Des/Viz/III/Gen
- More feeds

**FLOCK
TOGETHER
TIME**