

CPE ARC Investigations

A case study of GitHub2Fedmsg / Webhook2Fedmsg

Akashdeep Dhar

Software Engineer, CPE
Objective Lead, Fedora Council

Michal Konecny

Senior Software Engineer, CPE

Alright, lettuce get started with...

WHAT DUTIES DOES ARC TEAM PERFORM?

They aren't just messing around, right?

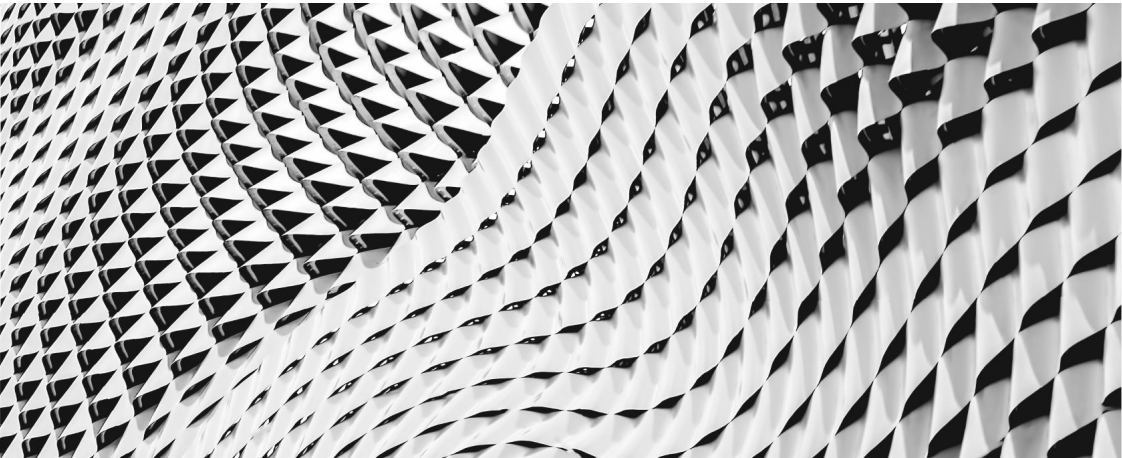
Why investigate?



Helps answer

- Is the proposed project worth doing?
- Does this project fit under our scope?
- How important or urgent is the project?
- Can we have a simple prototype?

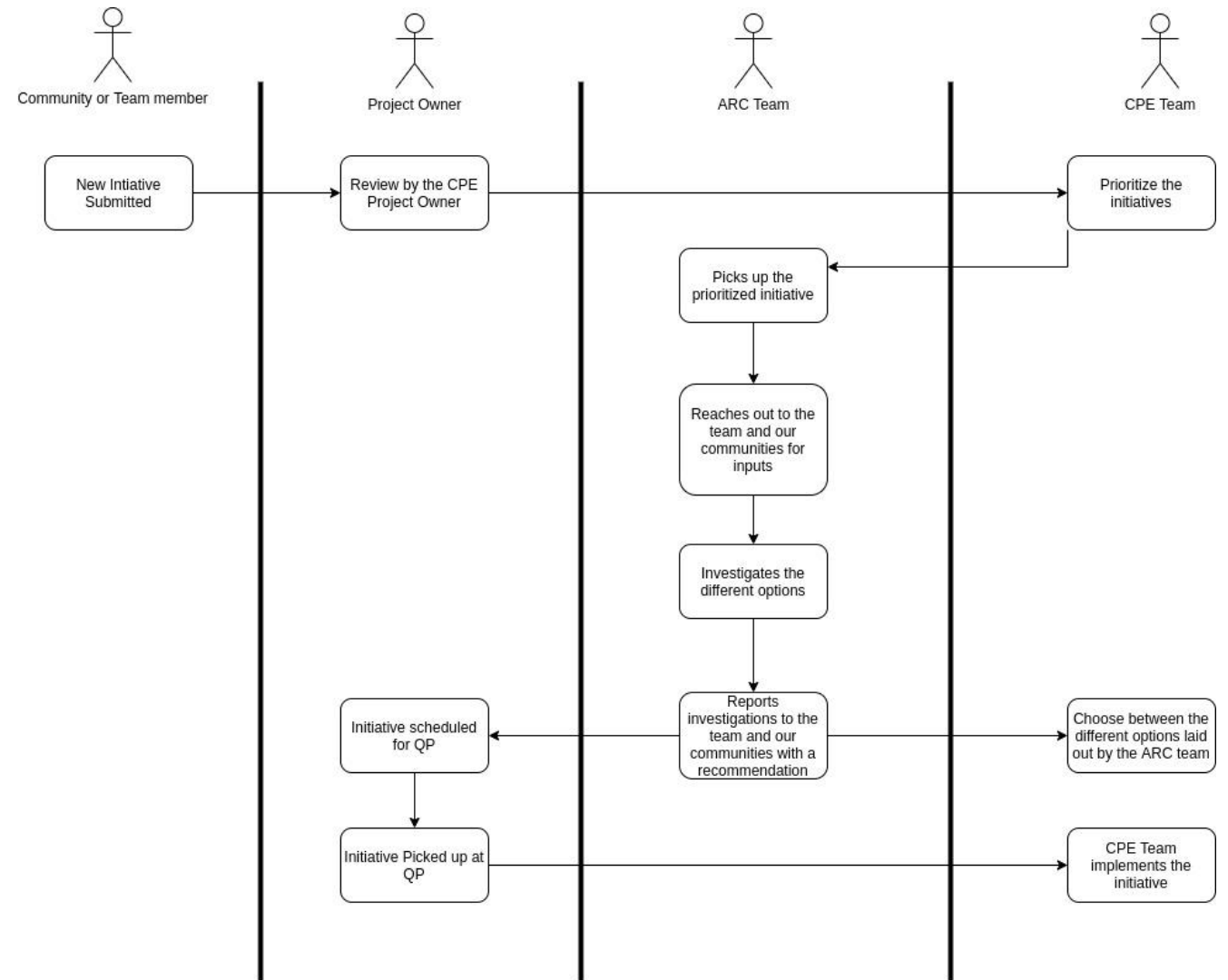
Who are involved?



Following members are involved

- Project proposer
- Project owner
- ARC team members
- CPE team members
- Initiative team folks

Workflow



It is all good and all but...

WHAT DOES THE ARC NAME STAND FOR?

Let's play a guessing game now, shall we?

What does this **ARC** name stand for?

1st of 7



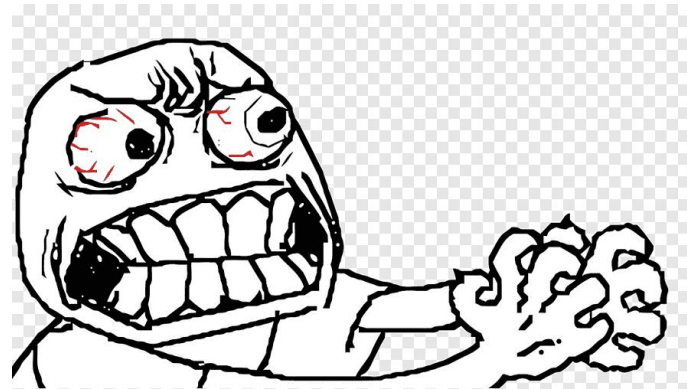
What does this **ARC** name stand for?

Alien Research Center



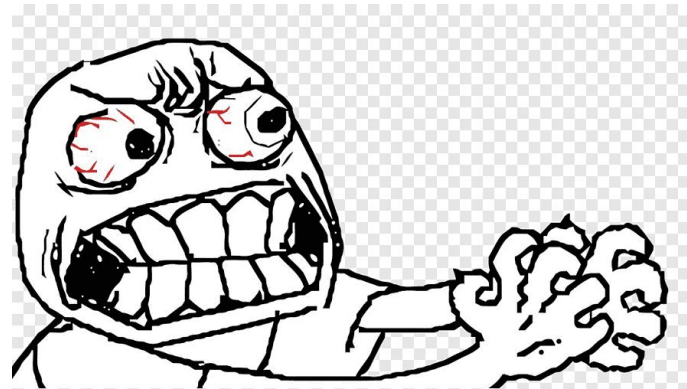
What does this **ARC** name stand for?

2nd of 7



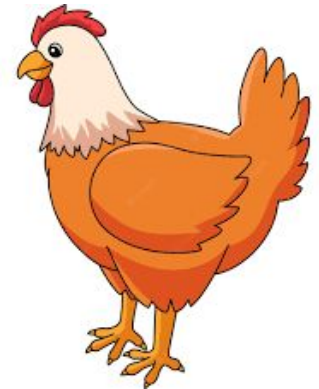
What does this **ARC** name stand for?

Aoife's **R**aging **C**hildren



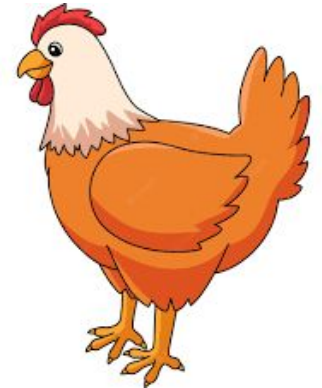
What does this **ARC** name stand for?

3rd of 7



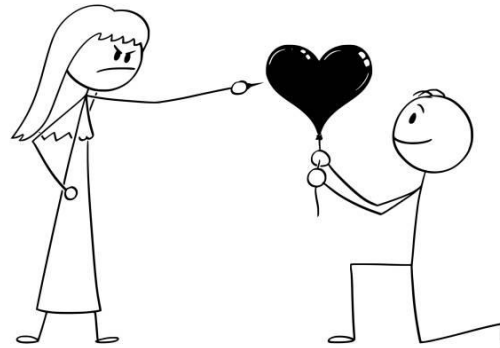
What does this **ARC** name stand for?

Ancient Roman Chicken



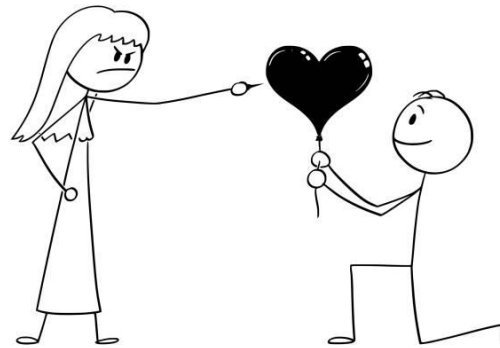
What does this **ARC** name stand for?

4th of 7



What does this **ARC** name stand for?

Arbitrary Rejection Cabal



What does this **ARC** name stand for?

5th of 7



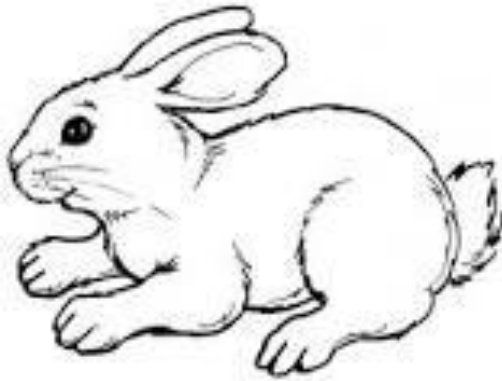
What does this **ARC** name stand for?

Advanced Repossession Crew



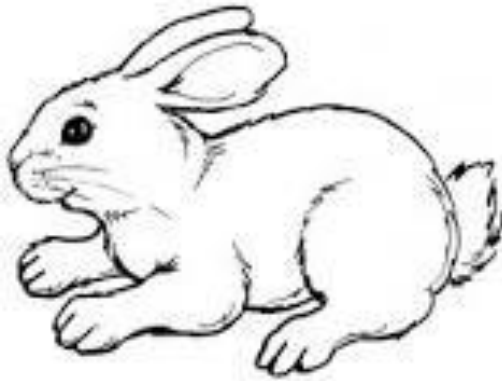
What does this **ARC** name stand for?

6th of 7



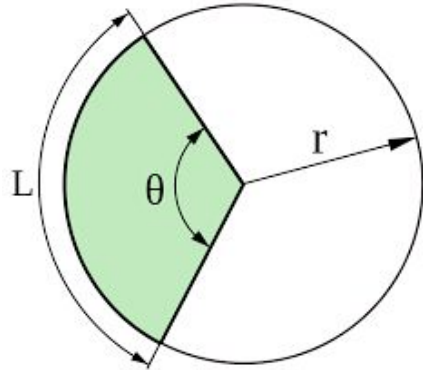
What does this **ARC** name stand for?

Angry Rabbits Committee



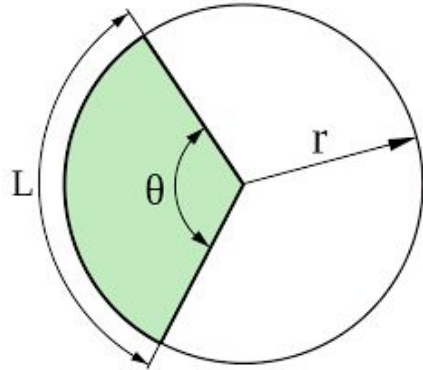
What does this **ARC** name stand for?

7th of 7



What does this **ARC** name stand for?

ARC Research Committee



ARC is an acronym that can vary through the days.

Make your pull request now!
pagure.io/fedora-infra/arc

That was fun but could you tell me...

WHAT INVESTIGATIONS HAVE WE DONE YET?

Or are doing, or planned, or implemented, or you know...

Initiatives

14 so far, as of 16th January 2023, 2145 IST

1

DRAFT

- FMN

8

INVESTIGATED

- Mailman3
- PDC replacement research
- Flask-oidc
- Communishift
- kerneltest
- webhook2fedmsg
- github2fedmsg
- Fedora Badges

5

IMPLEMENTED

- Datanommer / Datagrepper
- Monitoring / Metrics
- Improving reliability of mirrors-countme scripts
- Bodhi
- Package Automation using Packit

One case study to make it all sound easy...

github2fedmsg / webhook2fedmsg

Yours truly, Michal, Akashdeep and Patrik (Q4 2022)

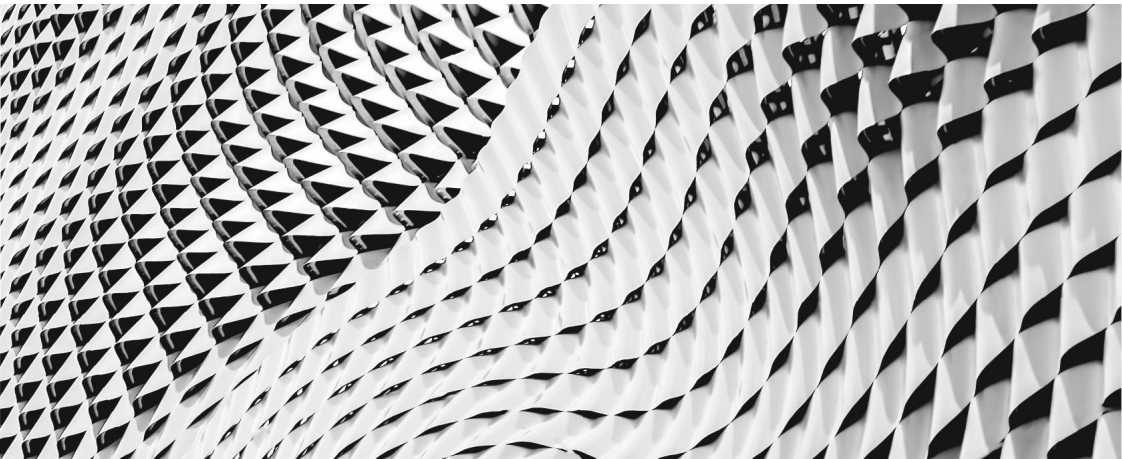
Why would we do this?



Helps solve

- Tech debt acquired with aging codebase
- Support for all cool GitHub events
- Deprecation of fedmsg
- Difficult workflow and testing

What is needed?

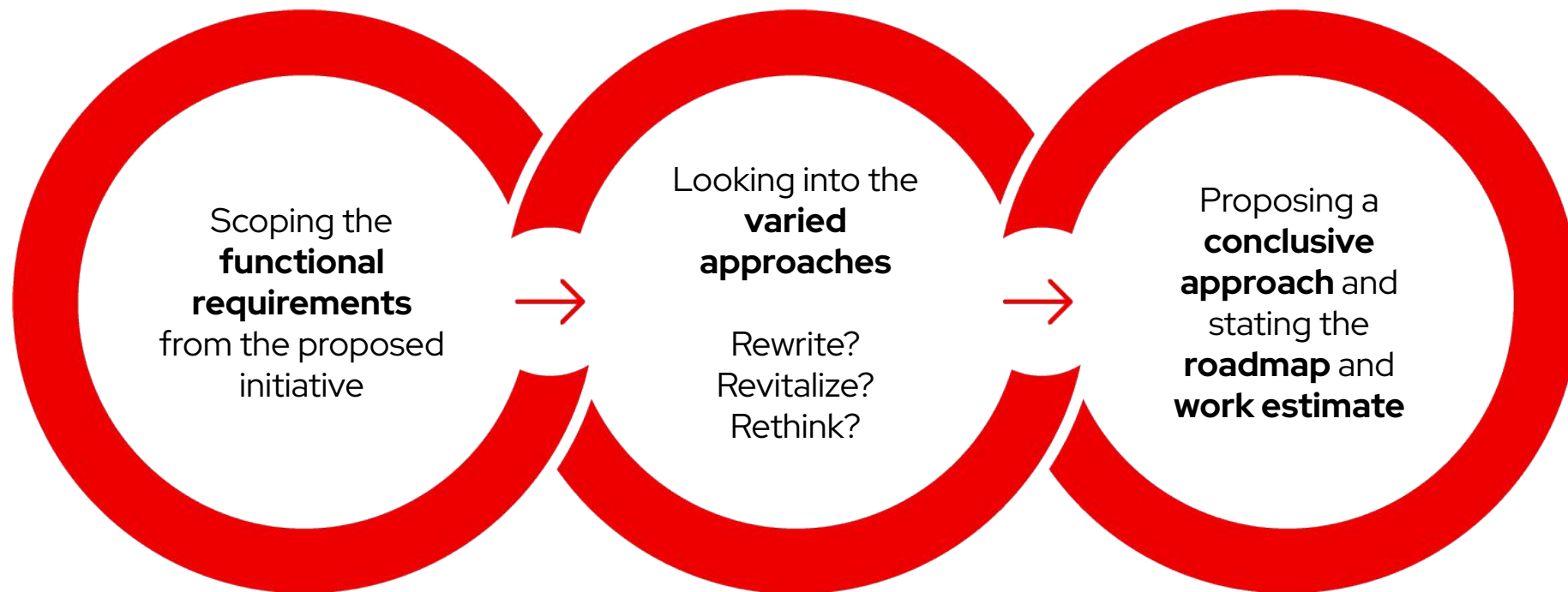


Following are the requirements

- Porting to Flask and supported authlib
- Support for FAS and Fedora Messaging
- Compatible to cool GitHub events
- Simpler develop and deploy workflows

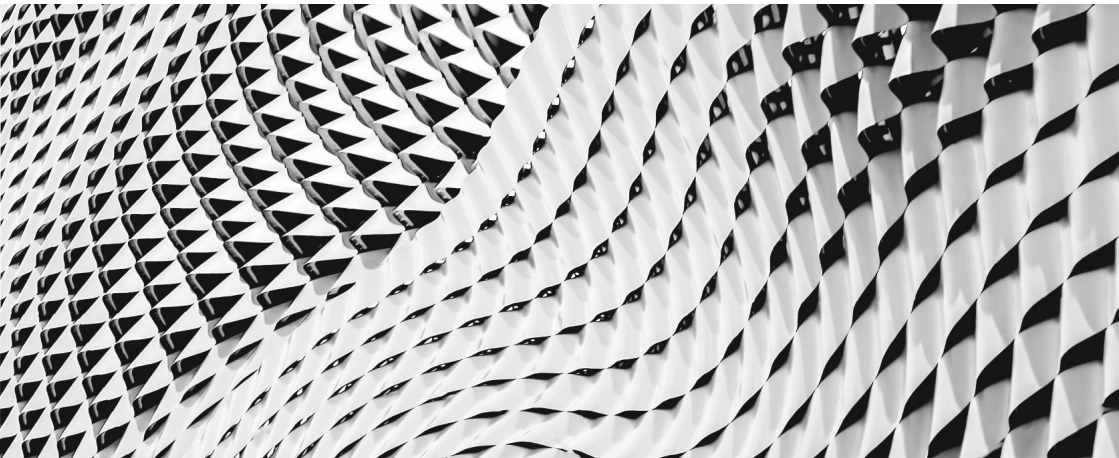
Things probed into during the investigation

A 10,000ft view on the process



Revitalize

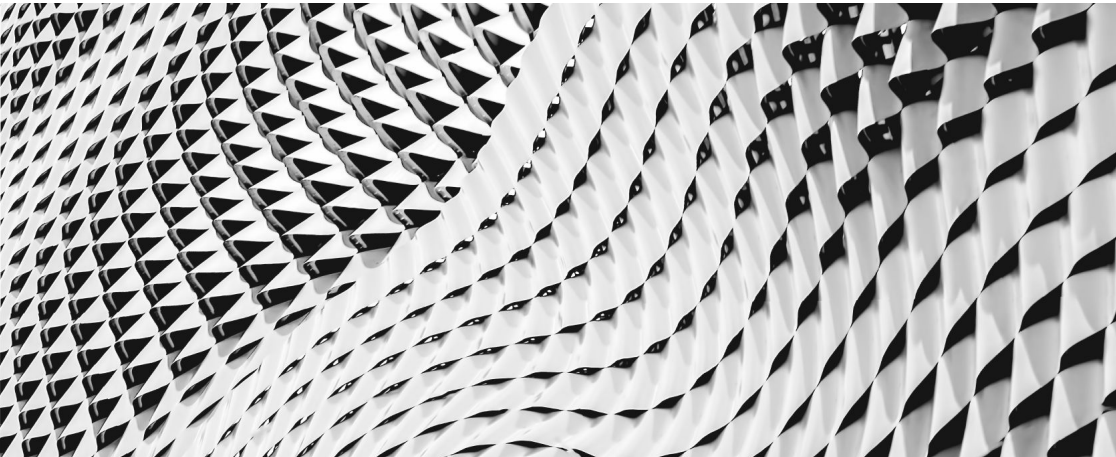
the existing codebase



- **WHAT?**
Salvage the existing codebase as much as possible and add things meaningfully
- **GOOD**
Save efforts by not creating things from ground up
- **BAD**
Spend time into learning frameworks currently used
- **UGLY**
Frontporting to the new codebase might not make sense

Rewrite

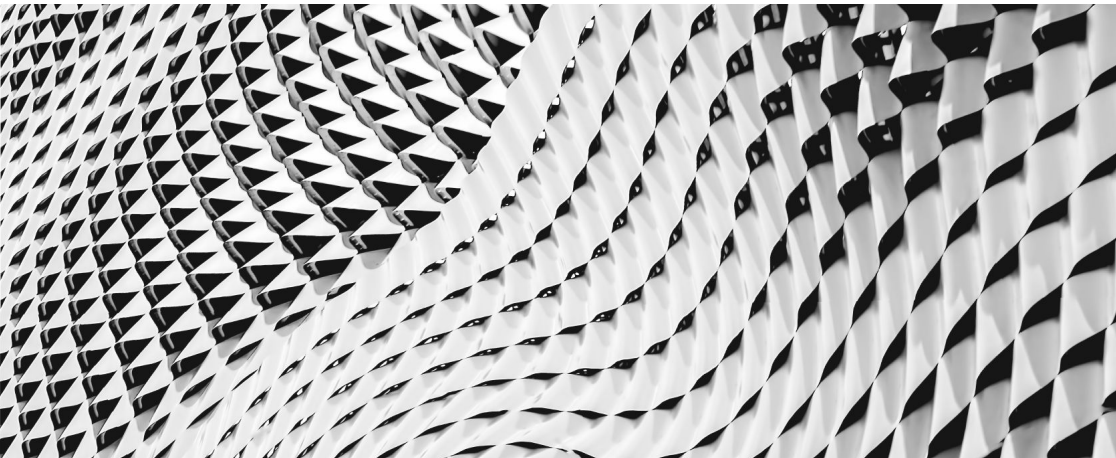
from ground up



- **WHAT?**
Scratch the existing codebase but inherit workflows to develop anew
- **GOOD**
Save time on learning frameworks currently used
- **BAD**
More effort spent on creating or improving features
- **UGLY**
Inherited workflows might not be imported as-is

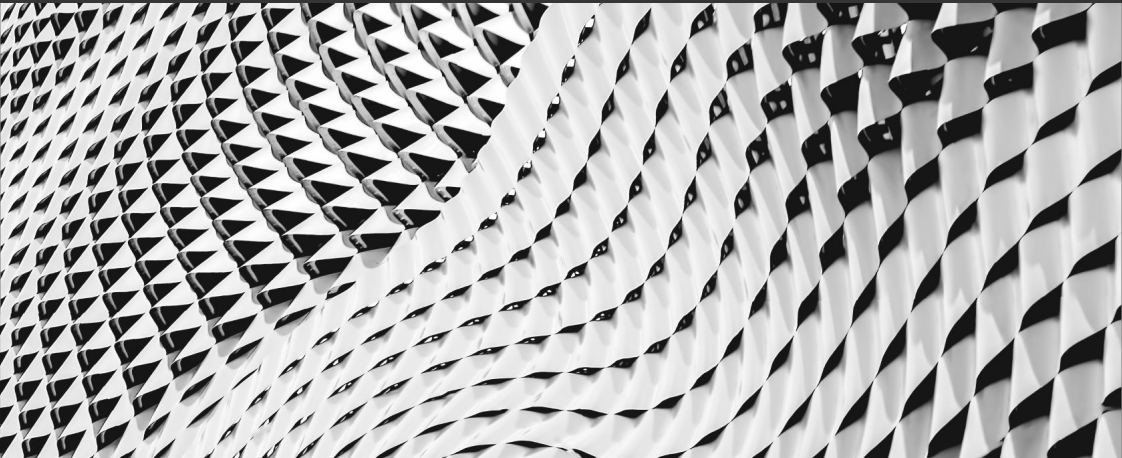
Rethink

the project's purpose



- **WHAT?**
Scrap the codebase and the purpose to imagine new features and solutions
- **GOOD**
Allows a (much needed) fresh take on the project
- **BAD**
More effort and extended time required for this
- **UGLY**
Committing new solutions might be overbearing

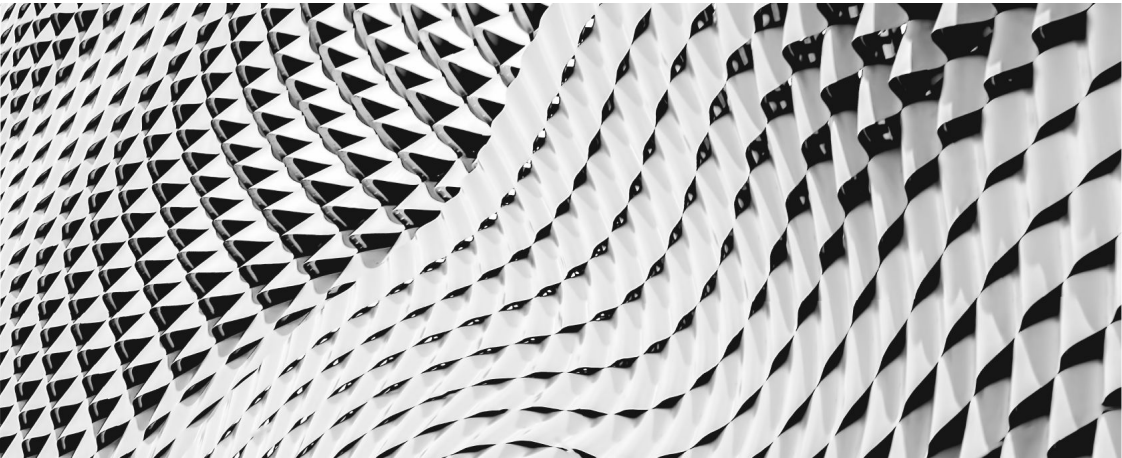
Conclusion



OUR PLAN

- Integrate the features from the **github2fedmsg** into the full-blown **webhook2fedmsg** feature set
- Requires added involvement with the **service webhooks** and **APIs** alongside writing rules for **Fedora Messaging**

Roadmap



THE THINGS WE WOULD DO

1. Write new app with tests and documentation
2. Create repository with message schemas
3. Deploy in the staging environment
4. Inform community about availability for testing
5. Deploy in the production environment
6. Publish blog announcing this new service

Thank you!

Red Hat is the world's leading provider of enterprise open source software solutions. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500.

 [linkedin.com/company/red-hat](https://www.linkedin.com/company/red-hat)

 [facebook.com/redhatinc](https://www.facebook.com/redhatinc)

 [youtube.com/user/RedHatVideos](https://www.youtube.com/user/RedHatVideos)

 twitter.com/RedHat

