



Fedora-infrastructure Challenges and solutions

Presented by

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Fedora infrastructure

The Fedora community



- From Mattdm's number at DevConf 2016
 - 2000+ contributors in 2015
 - Over 3 areas measured:
 - Dist-git (packaging)
 - Bodhi (packaging and testing)
 - wiki
 - 800 contributors contributing to at least two of the three
 - ~300 contributors contributing to all three
- World-wise distribution

The Fedora community

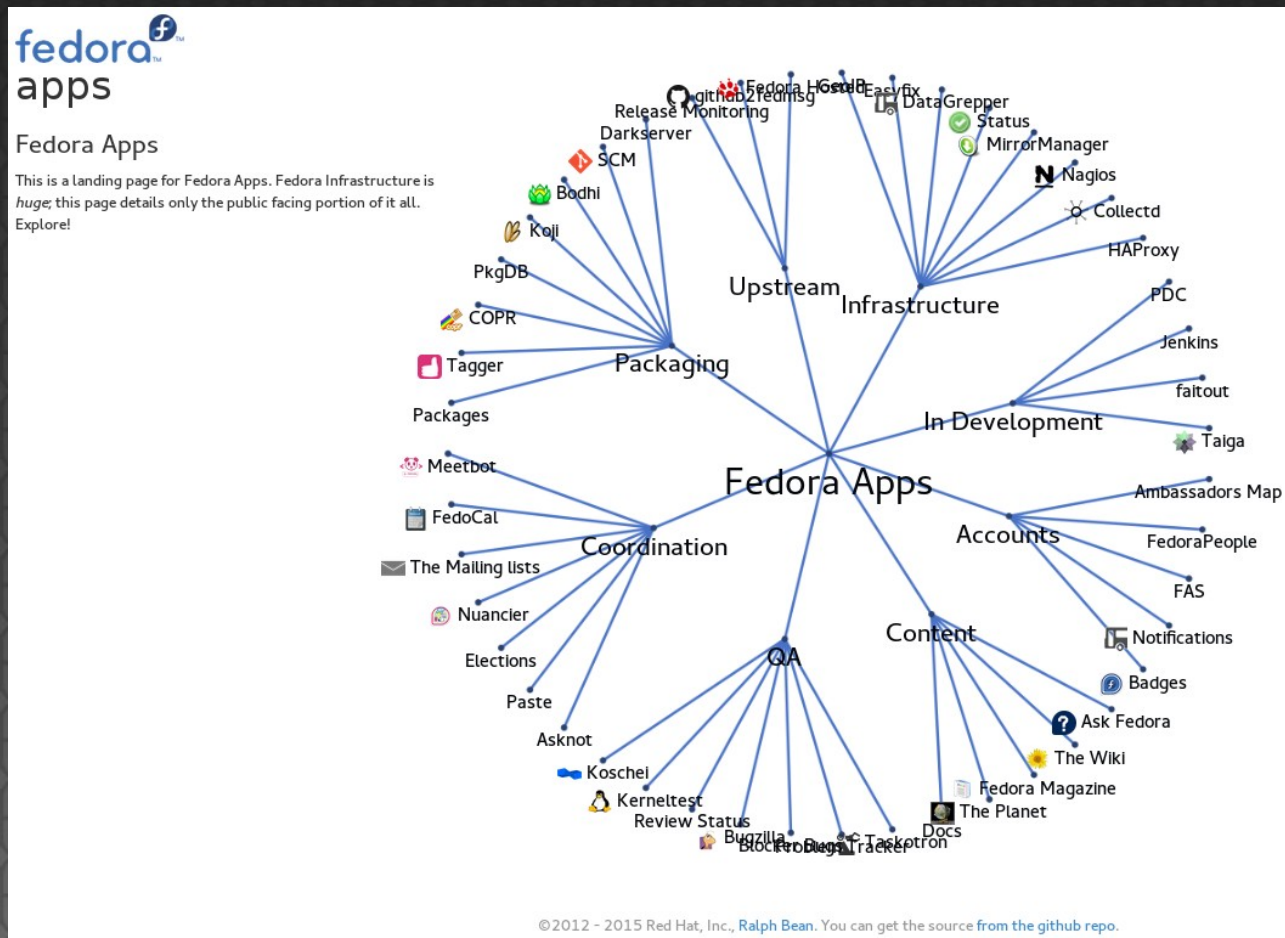
- 26% using @redhat.com email
- ~9% not using @redhat.com but hatters
- Leaving 65% not working for Red Hat

The Fedora engineering

- ~15 persons
 - 3 kernel developers
 - 2 designers
 - UI/UX and all kind of other designs
 - Sys-admin
 - Application developers

The Fedora engineering

- Applications maintained



<https://apps.fedoraproject.org>

Challenges

- Make all our application communicate
- Host projects created within the community
- Build Fedora and avoid breakage
- Build bridges between the old-timers and the new-comers

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fedmsg

- FEDerated Messaging
- Small python library
- Built on the top of 0mq
- Written by Ralph Bean
- Used outside Fedora
 - WIP in debian, used to be by data.gov.fr



fedmsg

- Sending messages

```
import fedmsg
fedmsg.publish(topic='testing', modname='test', msg={
    'test': "Hello World",
})
```

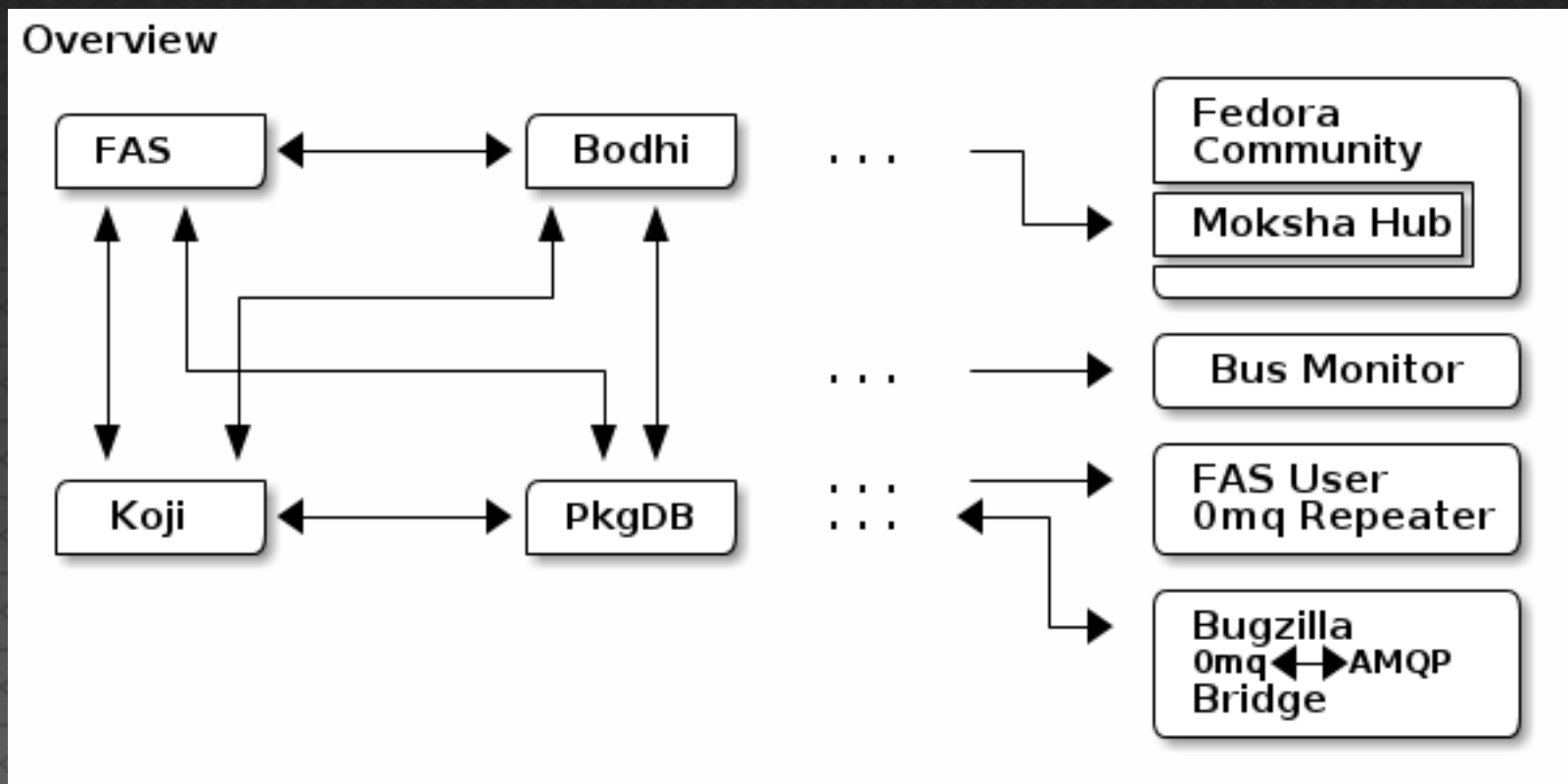
- Receiving messages

```
import fedmsg

# Yield messages as they're available from a generator
for name, endpoint, topic, msg in fedmsg.tail_messages():
    print topic, msg
```

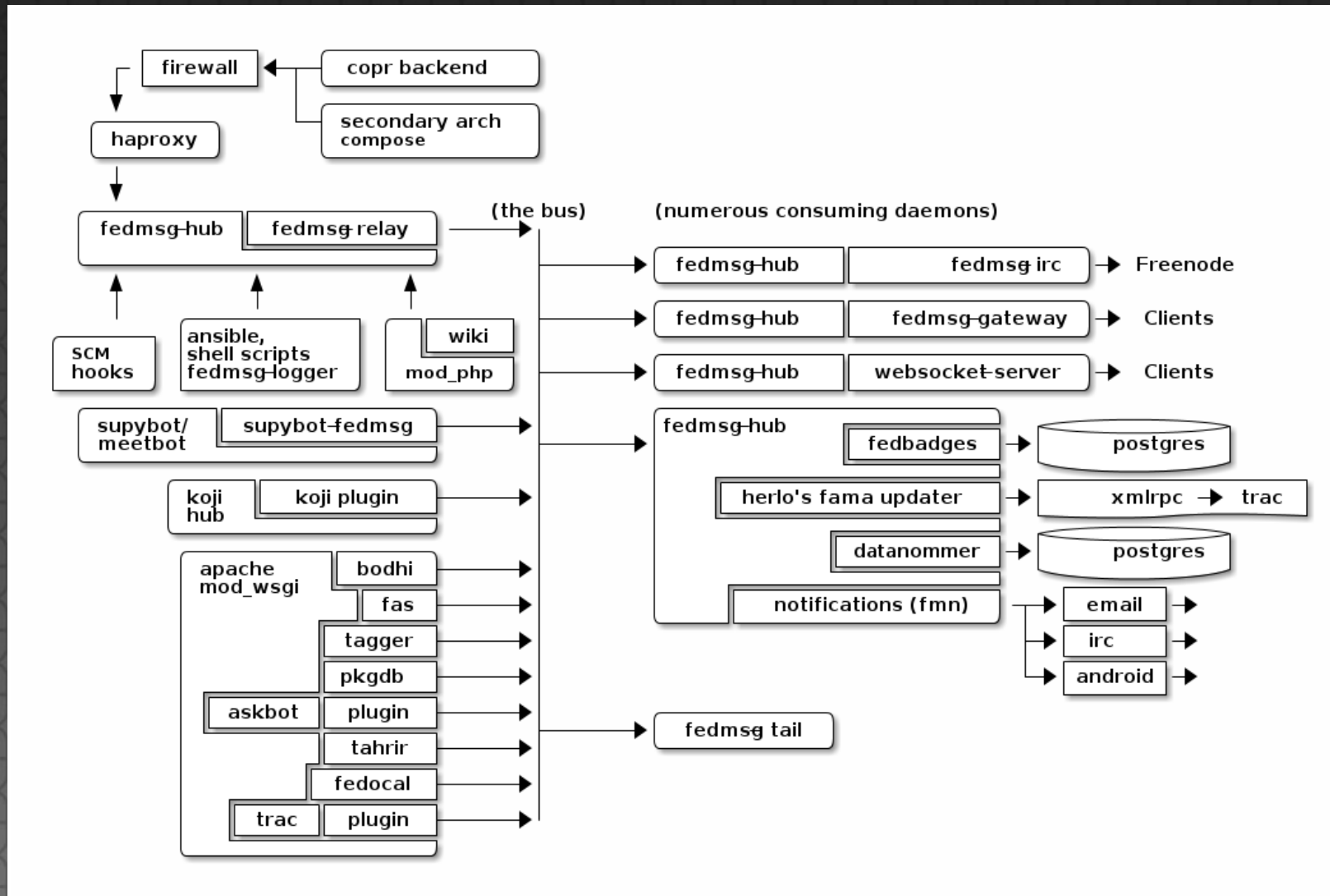
fedmsg

- Architecture



fedmsg

- Topology



fedmsg

- Messages signed
 - X509 or GPG
- Storage
 - Datanommer – datagrepper
 - <https://apps.fedoraproject.org/datagrepper/>

Fedmsg - example

- Anitya : <https://release-monitoring.org/>
 - Check twice a day for new release
- The-new-hotness
 - Check the version present in Fedora
 - Create a bugzilla ticket informing of the new version
 - Starts a scratch build on koji (Fedora's brew)
 - Comments on the bugzilla ticket about the result of the build

Fedmsg – example 2

- Change of a SSH key in the Fedora Account System (FAS)
 - Sends a message on the bus
- Fedmsg-fasclient
 - Receive the message
 - Trigger the run of an ansible playbook updating the user's info on the systems

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Fedorahosted



- Trac 0.12.5
 - Free and Open Source
- Offers mailing list
- Requires a ticket to get a project

Alternative hosting

- GitHub
 - Not FOSS
- GitLab
 - 3 GsoC to package it, still isn't
 - Hard to maintain
- Fedorahosted
 - Getting old

Pagure

- Python based
- Free and Open Source
- Modern UI and technologies
 - SSE, milter, web-hook, fedmsg, git hooks, fork & PR
- Multiple git repos per project:
 - Sources
 - Doc
 - Issues metadata and PR metadata
- Will offer mailing lists

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Build Fedora

- Dist-git
 - Stores the spec file
- Koji
 - Fedora's version of brew
 - Builds the RPMs
- Bodhi
 - Manages which builds go into the which repo and when

Avoid breakage

- Projects: jenkins
 - <http://jenkins.fedorainfracloud.org/>
- Distribution: Koschei
 - Rebuilds dependencies on update
 - <https://apps.fedoraproject.org/koschei>

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HyperKitty

- The new archive for MailMan3
- Bridges mailing list and forum
 - See the old posts on the list
 - Reply to a message
 - Start new thread
 - Without subscribing to the list

Fedora-hubs

- Help new comers finding where things are occurring
- Bridge web community with IRC
- Dashboard for contributors
- Dashboard per (sub)projects

Questions?



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