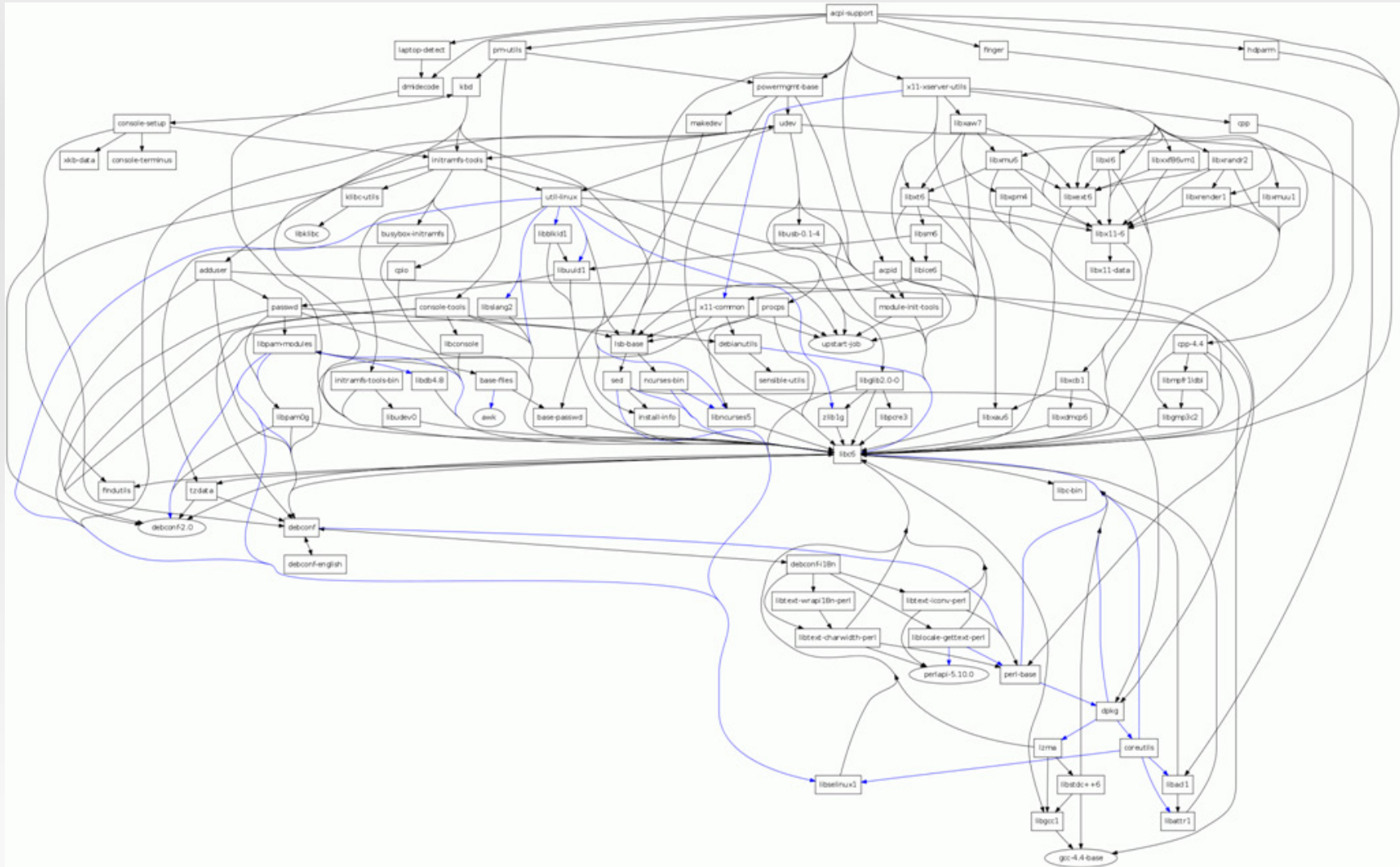
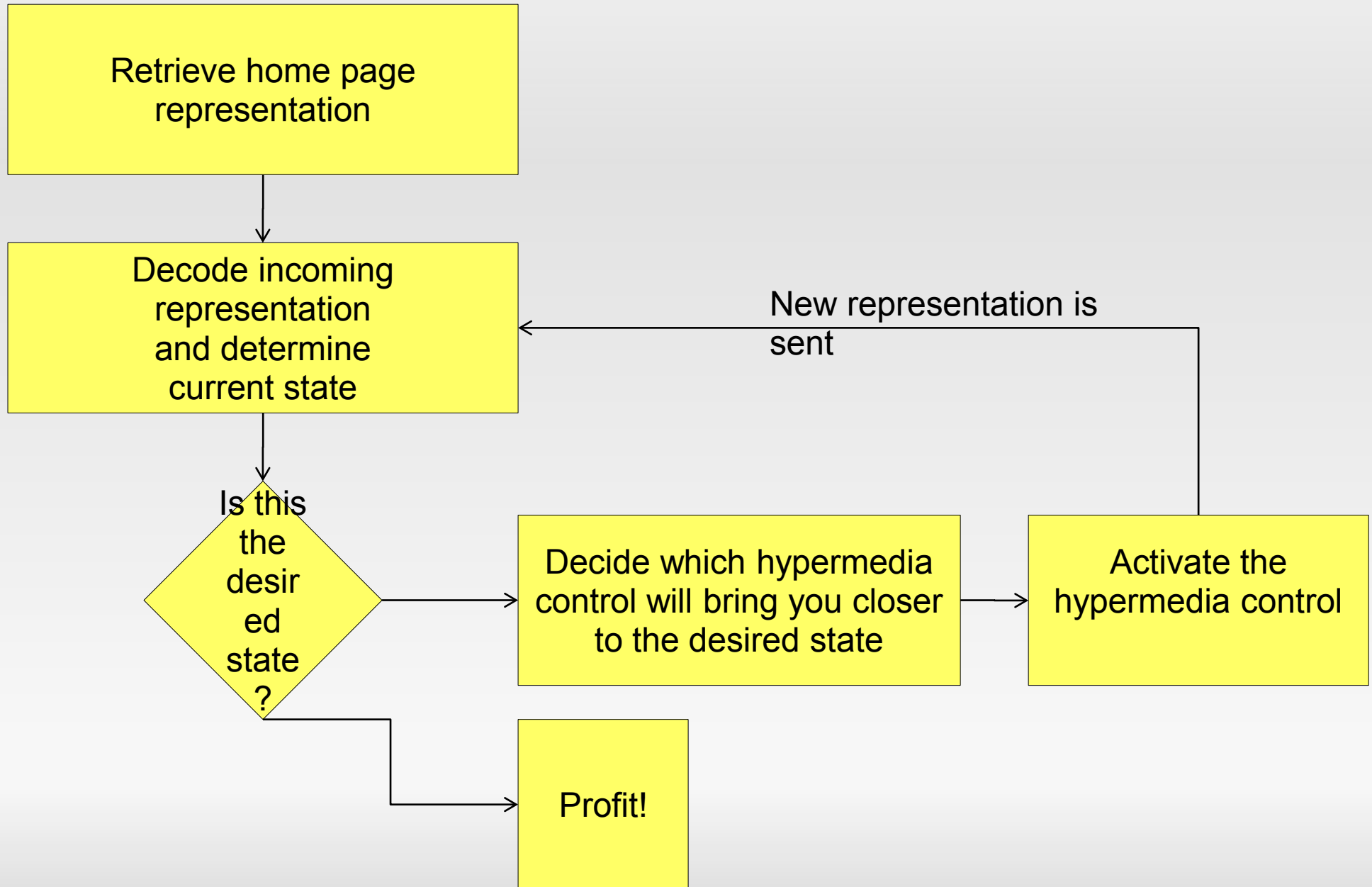


# Developers Love Hypermedia, But they Don't Like Web Browsers



A talk by Leonard Richardson  
<http://www.crummy.com/>

# Secrets of web surfing—revealed!



# A talk about users



Credit: Flickr user SydneyWalker

# Ubuntu



# Launchpad

Leonard Richardson • Log Out



## Launchpad web services client library

Overview Branches **Bugs** Blueprints Translations Answers

Bug #567004 reported by Bryce Harrington 11 hours ago

### Need way to flag 'minor-change' changes

launchpadlib » Bugs » Bug #567004

This bug affects 3 people. Does this bug affect you?

Affects	Status	Importance	Assigned to	Milestone
launchpadlib	New	Undecided	Unassigned	Target to milestone

Also affects project Also affects distribution Target to release

#### Bug Description

Please add a way to flag launchpadlib operations as 'minor-edit', thus making launchpad not send email notices about the changes.

#### [Discussion]

With launchpadlib it's useful to write scripts that do various recordkeeping and janitorial work. For instance, adding tags like 'patch' to bugs with attachments that are patches, or updating the titles to include specifics about hardware info. These can be quite helpful for managing bug workflows or to help sort and prioritize bugs.

However, in general, these changes are minor and of little importance to anyone subscribed to the bug report. They don't provide any indication of human activity on the bug report, they don't give the reporter any information that helps them work around or resolve the issue, and they tend to increase the perception of launchpad's email as overly chatty.

So the idea is to provide a parameter that these scripts could flip on to indicate that the change is minor. This should suppress email from being sent from Launchpad. There are probably only a few API calls which would benefit from having this option... adding/removing tags, changing the title, and (maybe) altering the description.

Tags: api

Martin Pool wrote 11 hours ago:

#1

That would be nice.

In some ways it would be nice if this also exempted the bug from being

This report is public

- Mark as duplicate
- Convert to a question
- Link a related branch
- Link to CVE

- Subscribe
- Subscribe someone else

#### Subscribers

Bryce Harrington

#### Also notified

- Bhuvaneshwaran A
- James Westby
- Markus Korn
- Martin Albisetti
- Martin Pool
- Ursula Junque
- William Grant
- ankit
- dev\_SK
- launchpadlib developers
- stephanie

# The Launchpad web service



Credit: Flickr user  
elston

# Meet my users

- Ubuntu desktop developers
- Distribution managers
- Other free software developers

# Up from XML-RPC

- Starting at Canonical
- I can do whatever I want...
- ...but I must write a Python client library that hides 'the REST stuff'.

# The PyAmazon Precedent

- Written by Mark Pilgrim **IN THE YEAR OF 200X**
- Michael Josephson took over in January 2004
- Broke on April 16, 2004
- Fixed on April 22, 2004
- Broke again in 2008
- Josephson is looking for a new maintainer

# Who's the fall guy?

- Write this friggin Python library
- Change it whenever the web service changes
- I'm the fall guy
- Aaaargh

# "The REST stuff" to the rescue

- Start by loading a 'home page'
- Make it easy to perform the hypermedia algorithm, over and over
- No need to change the client when the web service changes
- No need to explain HatEoAS

# Revealing mistakes



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# Cheating

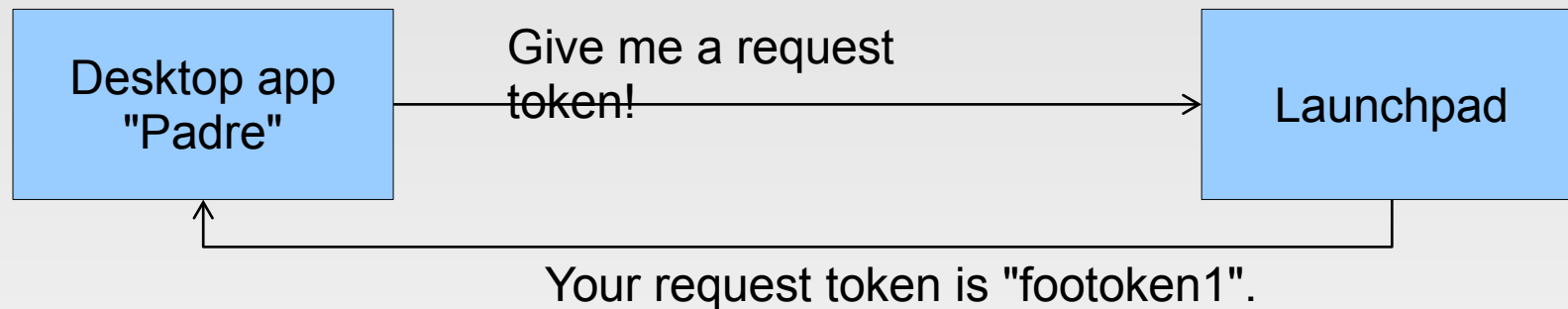
- `httplib2.debuglevel = 1`
- Hmm...
- `GET /bugs/567004`
- Who'll be there to hold your hand when your cheat breaks?
- (I will—I'm the fall guy, again.)

...but they don't like web browsers

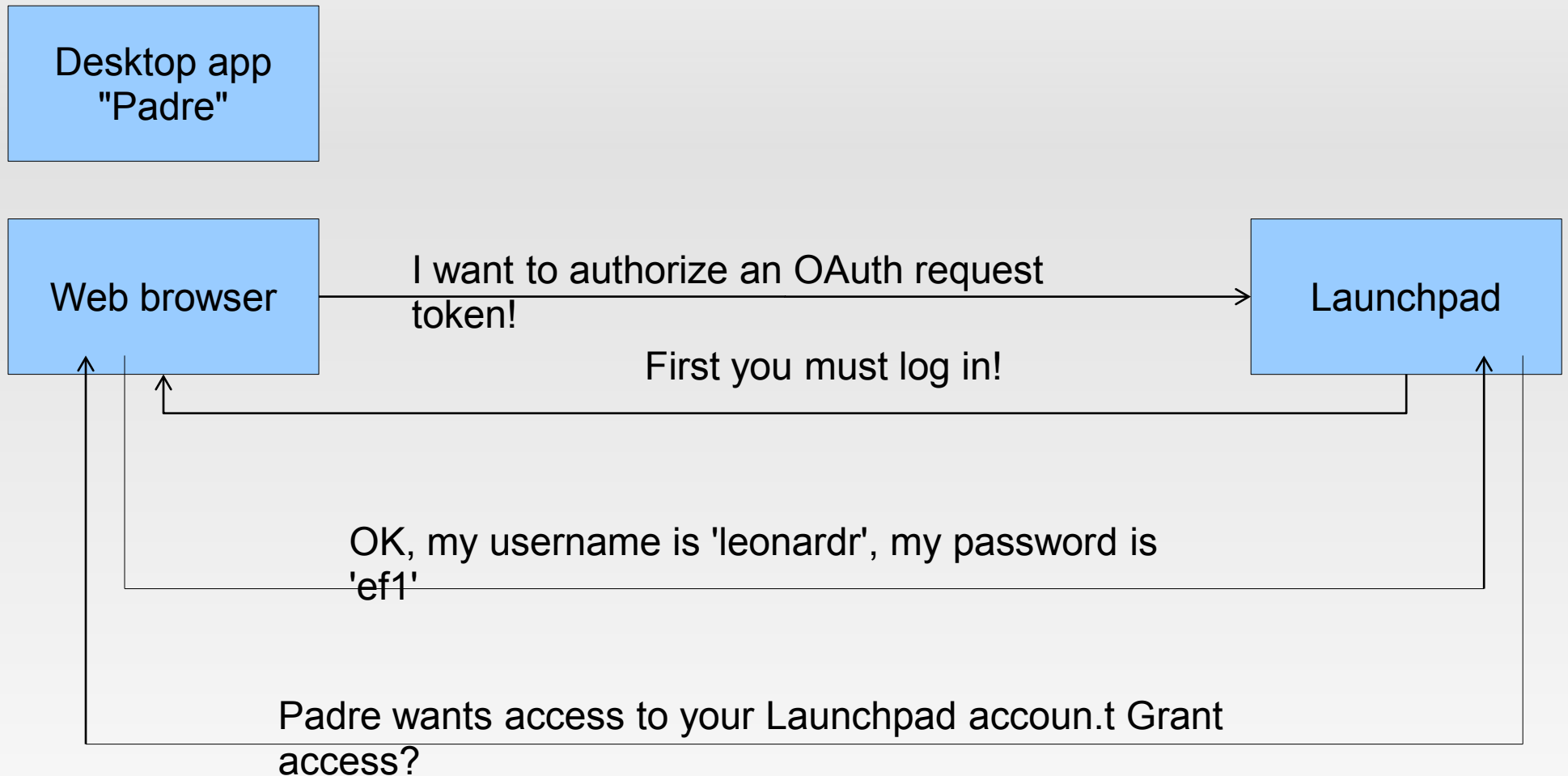


Credit: Flickr user jurvetson

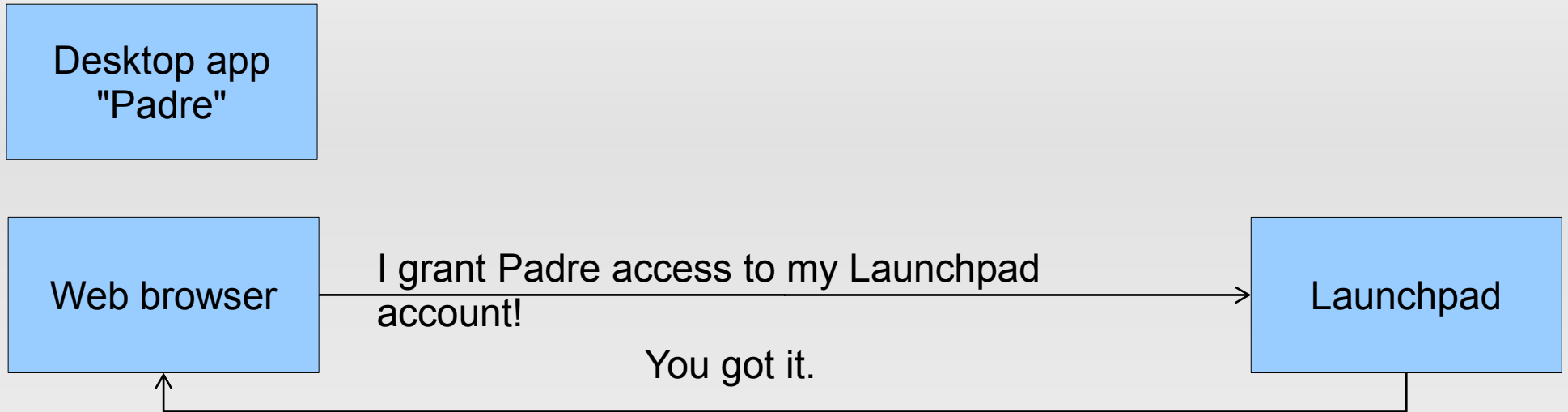
# The application gets a request token



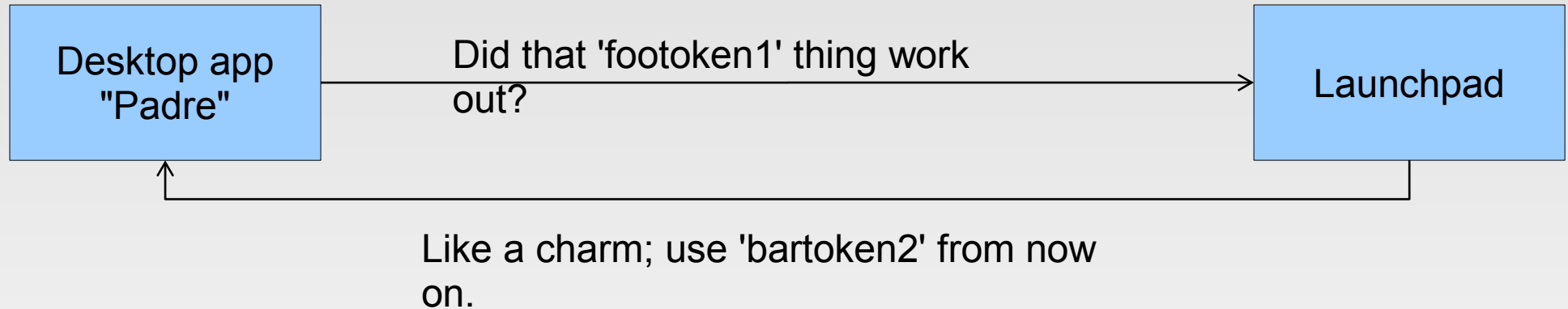
# The end-user logs in to Launchpad



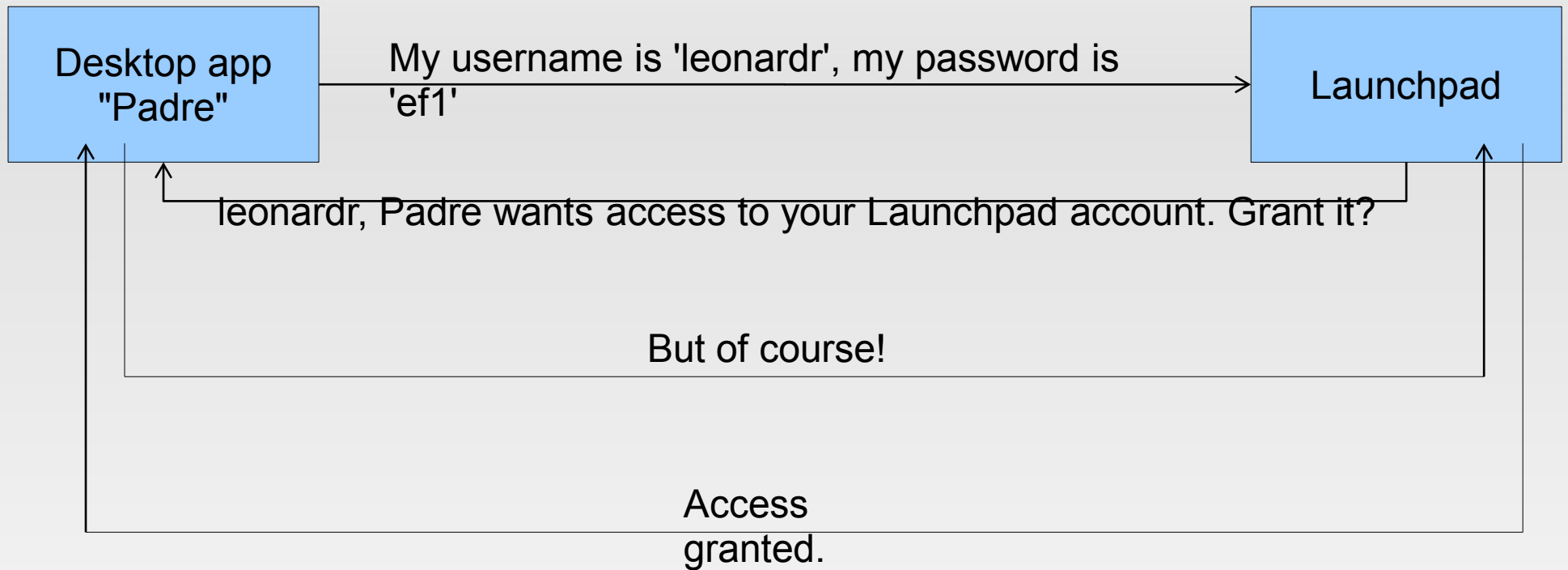
# The end-user authorizes the desktop app



# The application exchanges the request token for an access token



# Cheating



~~Web browser~~

# The invention of cheating

- Leonov
- Ground Control
- Et tu, ubuntu-dev-tools?

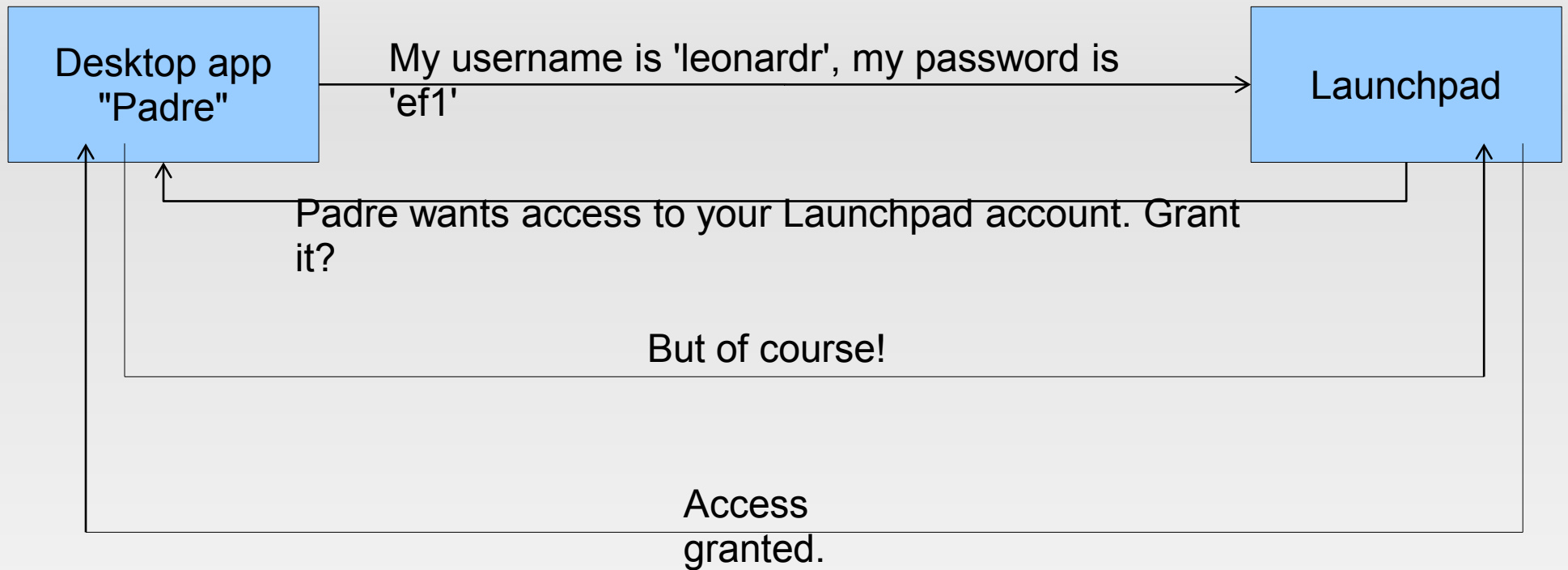
# Sir, explain yourself!

- User experience!
- Desktop apps already ownz you

# And then everything broke

- Client's been making canned HTTP requests
- Server stops accepting those requests
- Client breaks!
- Name that tune

# OAuth 2.0 to the rescue?



(No longer cheating!)

# Is it appropriate?

- "Suitable in cases where the end user already has a trust relationship with the client, such as its computer operating system or highly privileged applications."
- "Authorization servers SHOULD take special care when enabling user credentials flows, and SHOULD only use them when other delegation flows are not viable."

# Wait, *why* did we change Launchpad login?

- Oh yeah...
- We want Launchpad to be an OpenID relying party
- Log in to Launchpad using your Facebook account, LiveJournal account, etc.
- "Launchpad username" and "Launchpad password" no longer mean anything
- Can't authenticate with an arbitrary OpenID provider from a desktop app
- (Unless the desktop app is a web browser!)

# Solutions

- Give up our dreams
- Give up some of our dreams
- Reduce the number of browser opens

# Conclusion

- Developers don't find hypermedia exciting.
- They'll hack around it if it gets in the way.
- But they'll use it and love it (without noticing they're using it) if their usage fits the hypermedia algorithm.

Credit: Flickr  
user  
Totally Severe

