

Optimizing your core application for integration

Learnings from integrating OpenProject with Nextcloud

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Prioritize integrations on your roadmap!

- Now is the moment to beat the "big techs"
- Every single open source app becomes more attractive when integrated
- Building integrations is unnecessarily hard
- Most of the problems are predictable
- Drink your own champagne and participate in building integrations

Integrations are magic

- Web: ``
- Browser: Extensions
- Mobile: Apps
- ...

Deep integration of OpenProject & Nextcloud

- Problem: *"Where are the files for my task?"*
- A team of about 8 people involved for 1 year
- Sponsors: University Duisburg-Essen and the City of Cologne



In OpenProject: Link a work package to file/folder

Wielands Testprojekt

+

OpenProject

Search ...

Set parent +

←

TASK Second fermentation dough


+ Create

In progress

#6163: Created by Wieland Lindenthal. Last updated on 03.02.2023 15:33.

Set to new

- 500ml tab water
- 500gr Flour 00
- 5gr yiest
- Mixit and leave it in the fridge for one night




ACTIVITY

FILES (2)

RELATIONS (1)

WATCHERS (1)

ATTACHMENTS

 Drop files here or click to attach files.

Attach files

MY NEXTCLOUD

Poolish fermentation.md9 minutes ago

Pizza photos2 months ago

Upload filesLink existing files

In Nextcloud: Link a file/folder to a work package

The screenshot displays the Nextcloud web interface. On the left, a sidebar contains navigation options: 'All files', 'Recent', 'Favorites', 'Shares', and 'Tags'. The main content area shows a folder named 'Pizza recipes' with a sub-header 'Add notes, lists or links ...'. Below this, a table lists files. One file, 'Poolish fermen....md', is highlighted. To the right, a panel titled 'Poolish ferm...' is open, showing a search bar and a list of 'Existing relations'. The first relation is 'In progress' with the task 'Second fermentation dough' by 'Wieland Lindenthal'. The second relation is 'Specified' with the task 'Prepare pizza dough' by 'Ivana Šugić'.

Poolish ferm... 0 B, 15 minutes ago

Activity Com... **Open...** Sharing Versi...

Search for a work package to create a relation

Existing relations:

In progress

#6163 - Wielands Testprojekt

TASK Second fermentation dough

Wieland Lindenthal

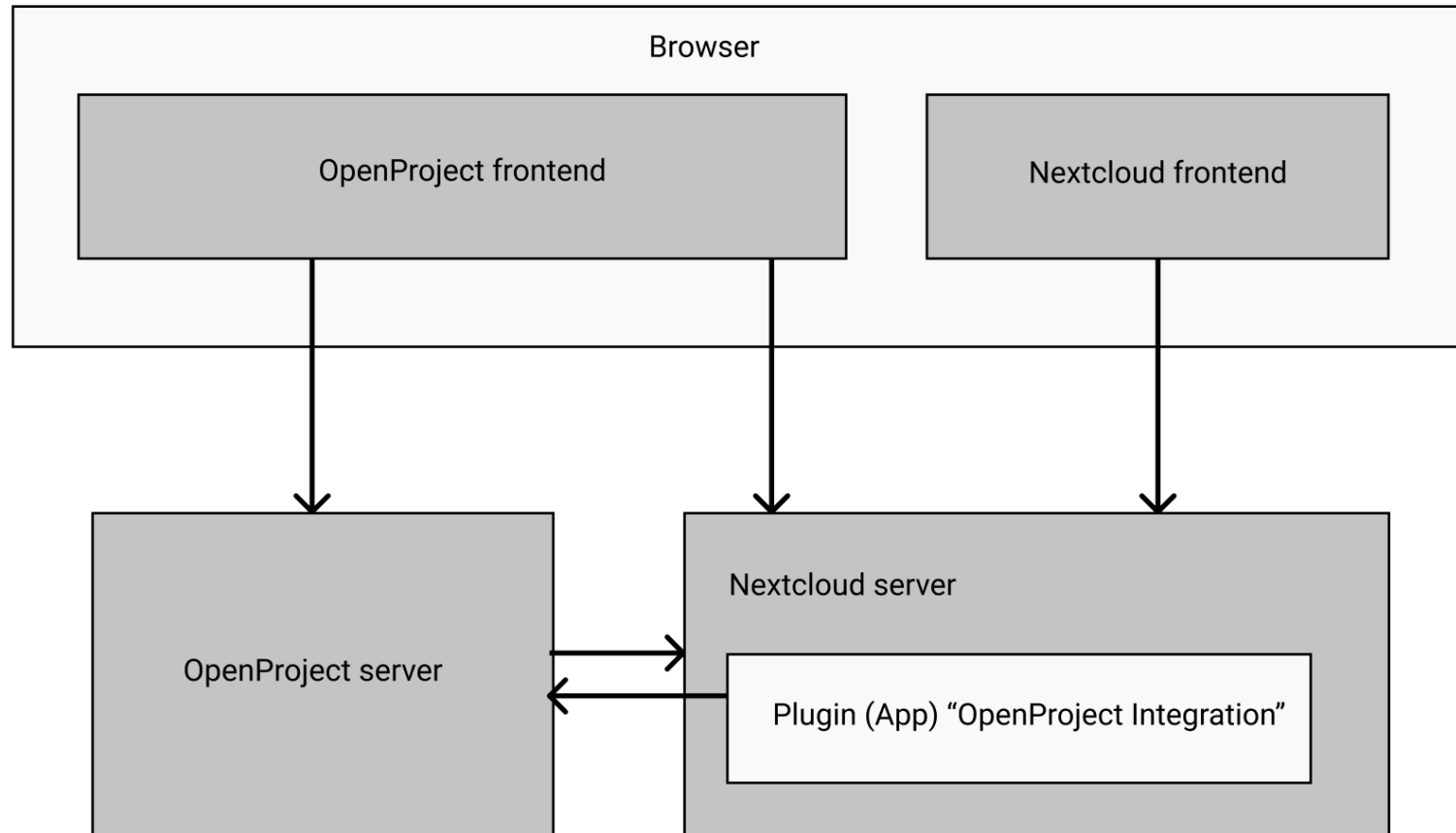
Specified

#6161 - Wielands Testprojekt

TASK Prepare pizza dough

Ivana Šugić

Architecture



Lessons learned

Provide an API

- With docs and examples
- Test cross-site scenarios in the browser
- Watch out for CORS
- Make sure your main objects are retrievable via ID

Create a plugin interface

...and make it easy to install them

Allow extending your CSP for cross-site requests

Make host address verification easy

- Obvious:
 - Valid URL?
 - Reachable?
- Less obvious:
 - Target setup complete?
 - Target setup in the right version(s)?

Provide an API for OAuth setup management

- Hosters and testers might want to script the integration setup
- Allows to disconnect everything with one click
- Make sure it revokes all tokens

Provide scopes for OAuth tokens

- Allow limiting the access to the necessary
- Not every integration needs admin rights

Provide a design system

- Consistent UI
- Faster development

Provide containerized development environments

- For all supported versions and the current main branch
- e.g. provide docker compose files for plugin development

Provide examples for setting up a CI for plugins

Integrated we are stronger

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