Collabora Productivity

Integrating LibreOffice OnLine via WOPI

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How to integrate into your webapp

- Install LibreOffice OnLine on a dedicated server / VM (other than the ownCloud/Nextcloud install)
  - And setup the SSL for the https access
- Implement the REST endpoints
- Modify your webapp to add iframe for LibreOffice Online
- Profit! :-)

But maybe you are interested
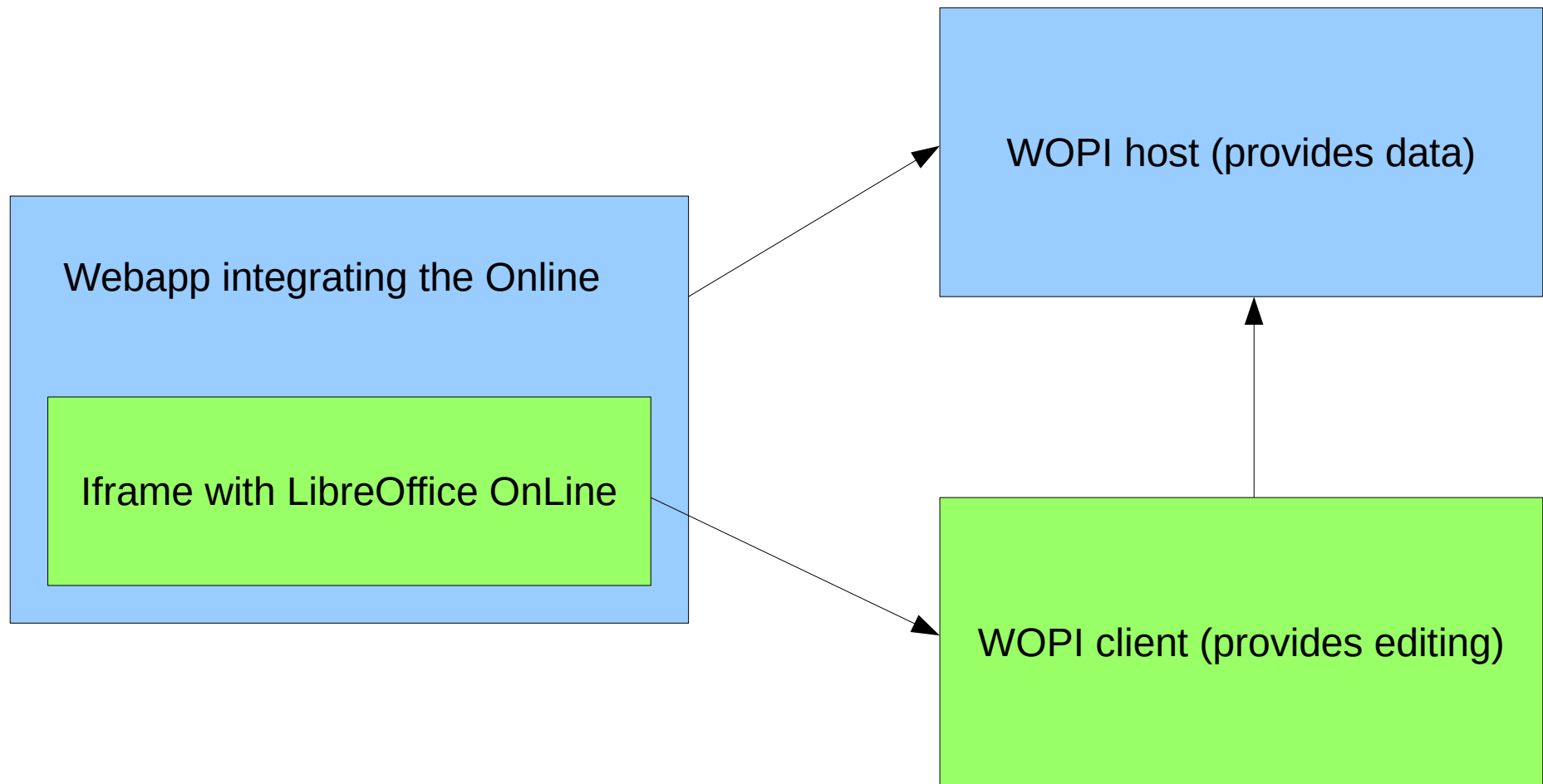# in some details?

WOPI protocol

- LibreOffice Online implements (part of) the WOPI (Web Application Open Platform Interface) protocol

- LibreOffice Online is a WOPI client that can be integrated with a WOPI host (that means your webapp)

- WOPI: a well documented open protocol: https://wopi.readthedocs.org/en/latest/ .

LibreOffice OnLine & WOPI

Webapp integrating the Online

Iframe with LibreOffice OnLine

WOPI host (provides data)

WOPI client (provides editing)

Reference implementation

- https://github.com/owncloud/richdocuments

- Consists of PHP parts and JavaScript

  - PHP: Rest endpoints that allow the transfer of the data

  - JavaScript: The actual integration that triggers document loading & showing inside the ownCloud / Nextcloud

REST endpoints

- To download the file:
  - GET https://<WOPI host URL>/<...>/wopi*/files/<id>/contents?access_token=<token>

- Upload back:
  - POST https://<WOPI host URL>/<...>/wopi*/files/<id>/contents?access_token=<token>

- Check file info:
  - https://<WOPI host URL>/<...>/wopi*/files/<id>?access_token=<token>

Security token

- To be able to access files securely, an authentication token has to be passed to LibreOffice OnLine
  - From the LibreOffice OnLine point of view, it can be any random number / string that will be passed as part of the URL when accessing the document storage
- Should be generated according to the user who is logged in

Discovery service

- To get the information about how to initiate the iframe, the 1st thing has to be an access to a "discovery" xml
  - Different document types can be served by different servers

JavaScript part – embedding the iframe

- The Connector connects to the discovery service

- Creates an iframe that contains the LibreOffice OnLine

  - Has to be provided with the access token via a POST request

  - And then only gets called back when the document is closed again

Recommended steps

- Add WOPI REST endpoints to your web service, for the moment returning only a " Hello World " message.

- Implement the CheckFileInfo endpont

- Now you can see a constructed document containing just "Hello World" in the Online

  - https://<client>:<port>/loleaflet/<hash>/loleaflet.html?WOPISrc=https://<WOPI host URL>/<...>/wopi*/files/<id>

- Create an iframe that embeds the LibreOffice Online

- Update the REST endpoints to actually load real data

- Implement the PutFile endpoint to really save the data

Questions?