NFDI4BioImage
TA3 Hackathon @ UoC

NFDI 4
BIOIMAGE

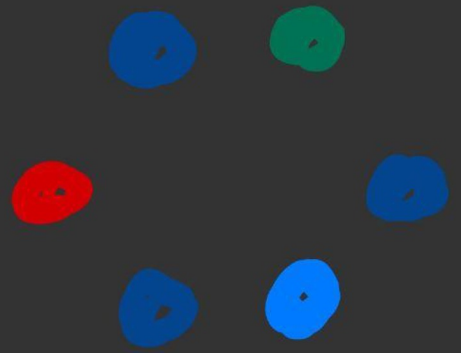
OMERO-zarr

Josh Moore

1. OME-PERL
2. OMERO 2
3. OMERO 3
4. OMERO 4
5. OMERO 5+

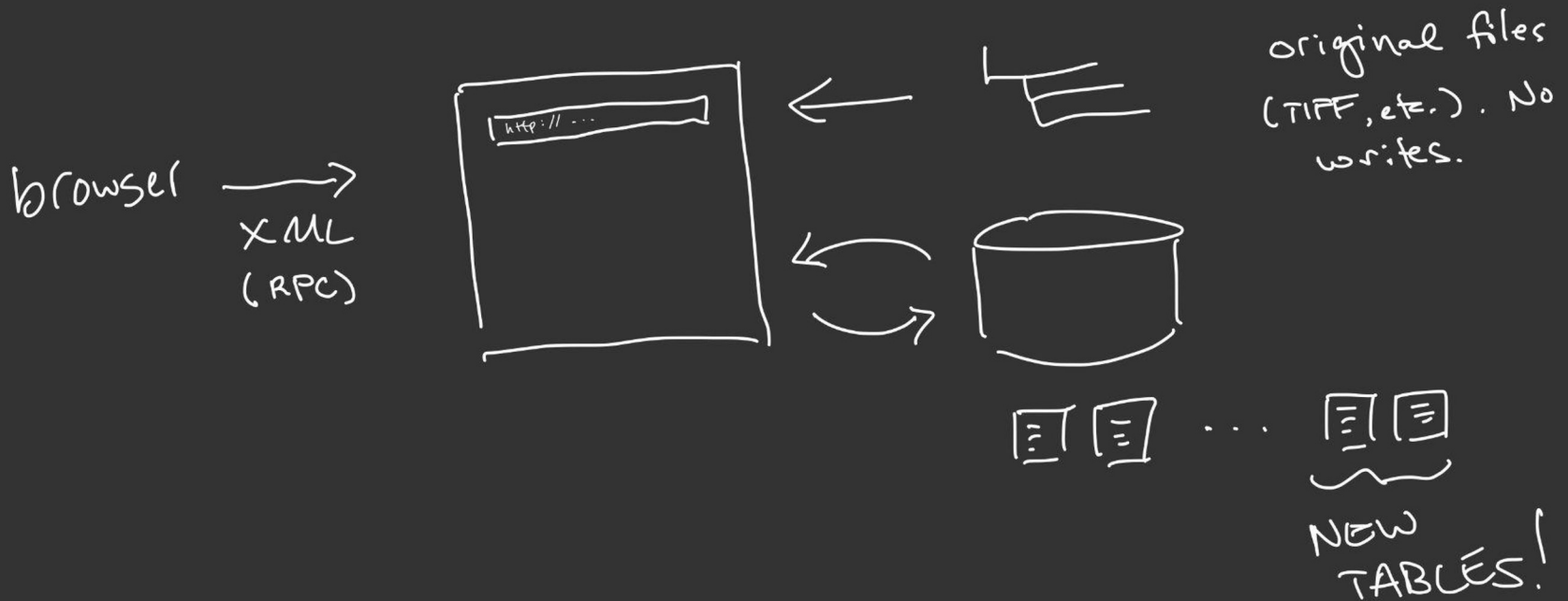
real quick

6. OME-ZARR
7. ARC FTW!

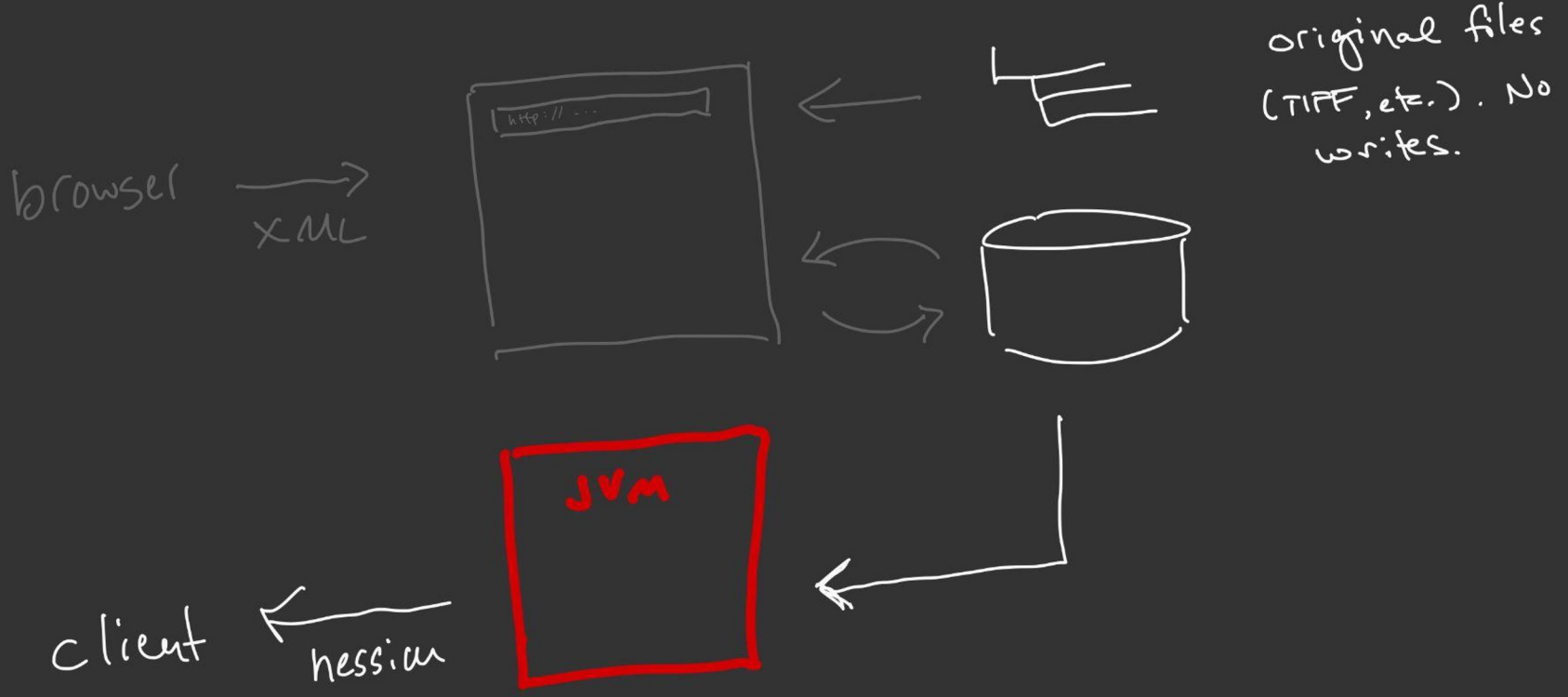


NFDI 4 BIOIMAGE

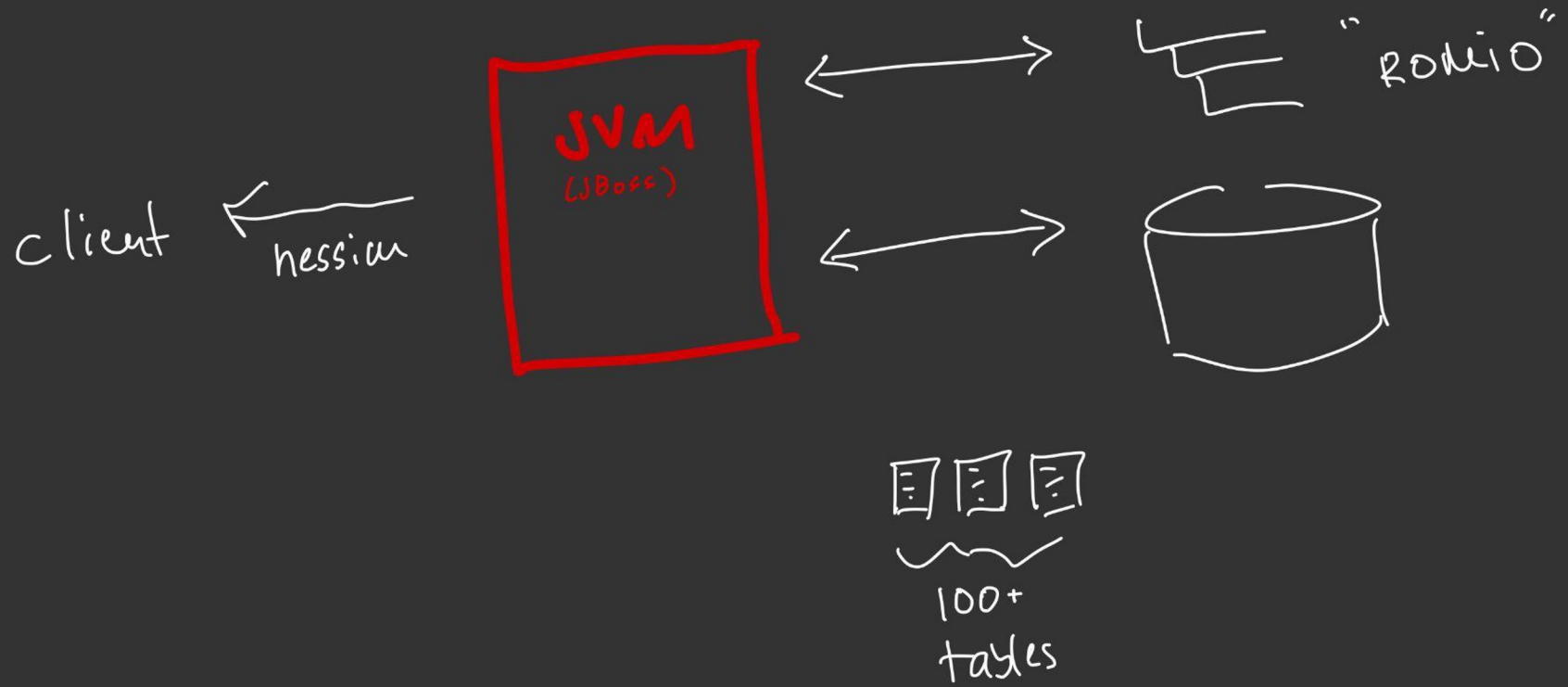
1. OME-PERL (2000-2005+/-)



2. OMERO ("read-only") 2005-2006



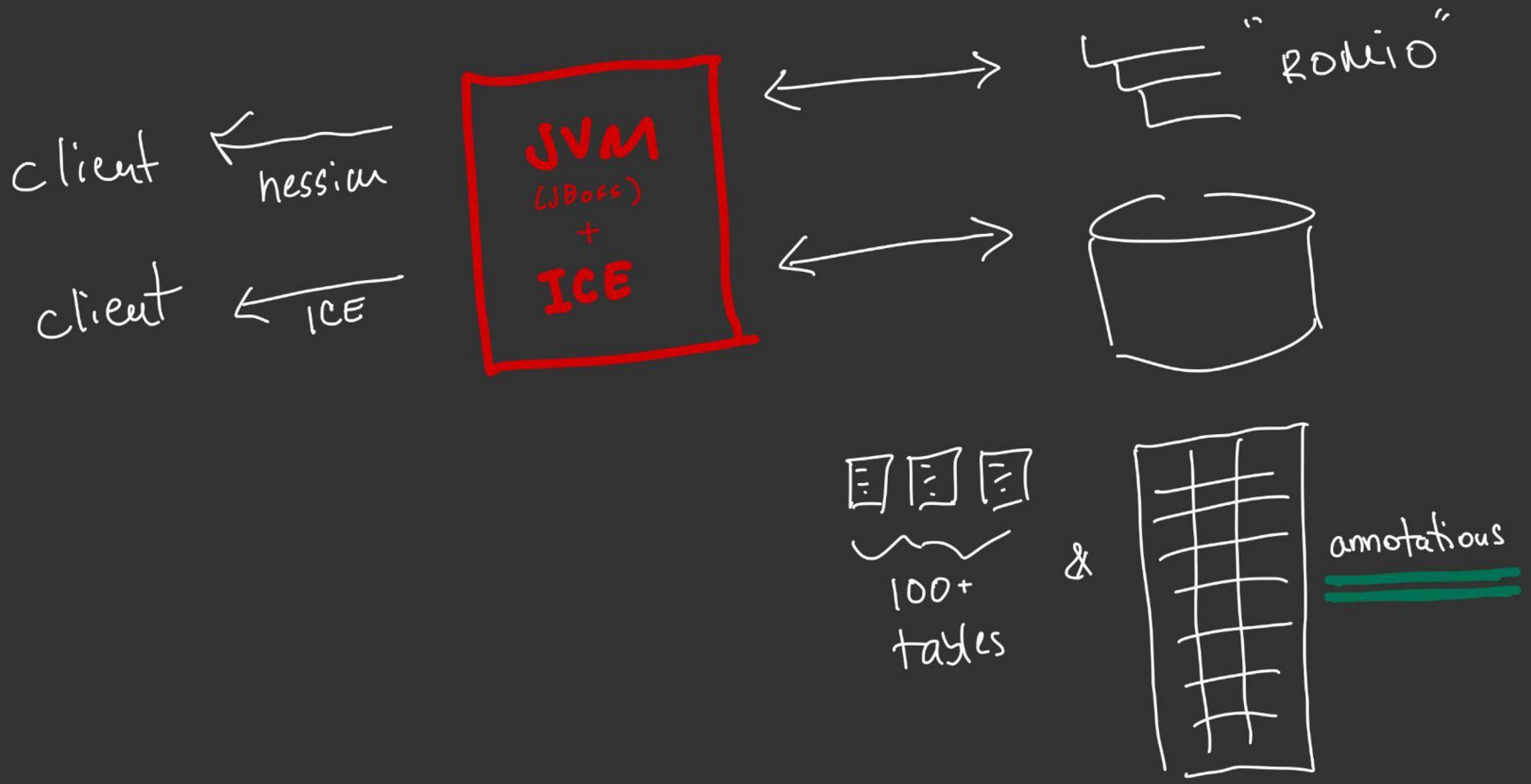
3. OMERO ("remote objects") 2006-2009



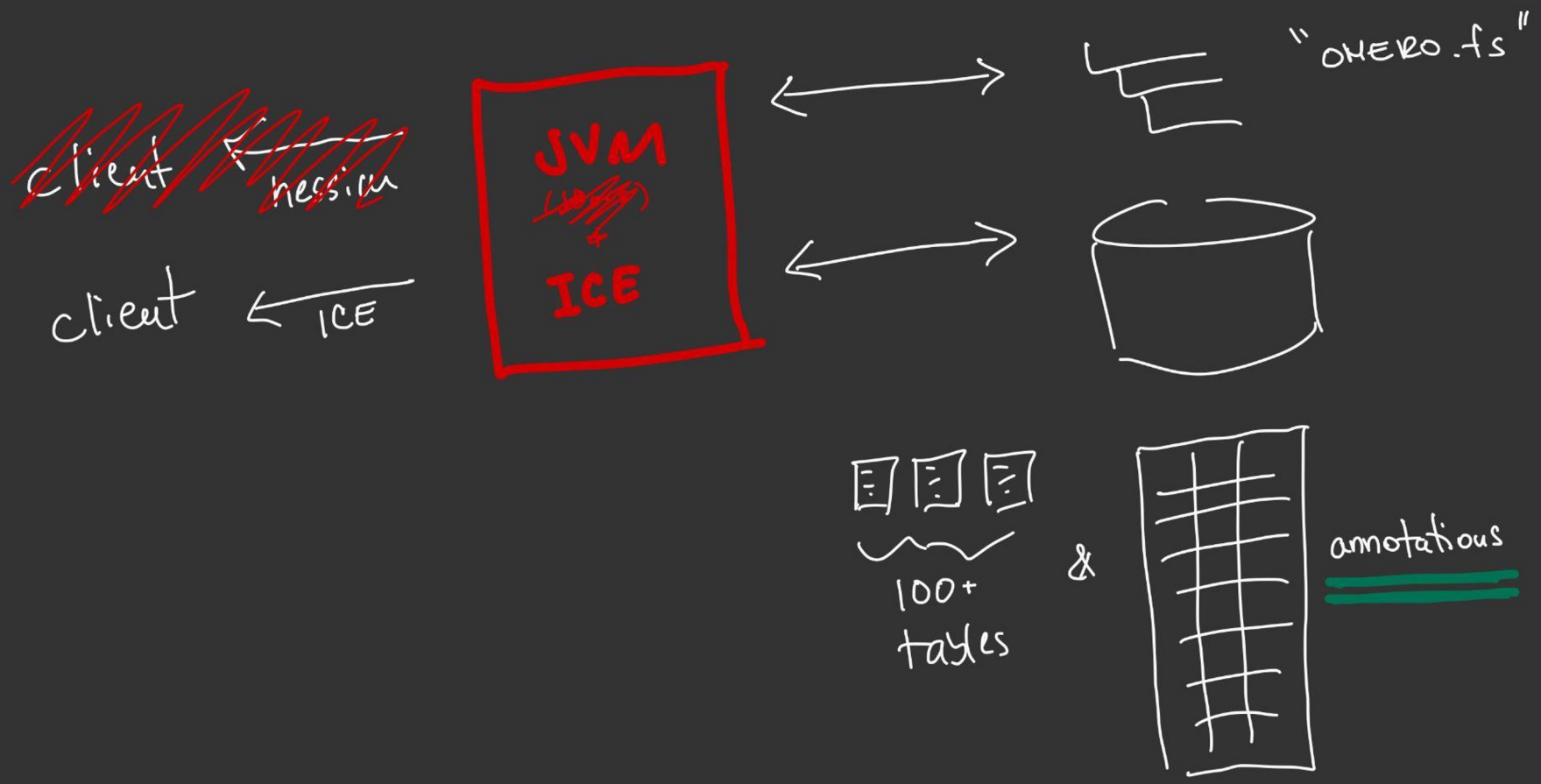
P.S. RDF

NFDI4 BIOIMAGE

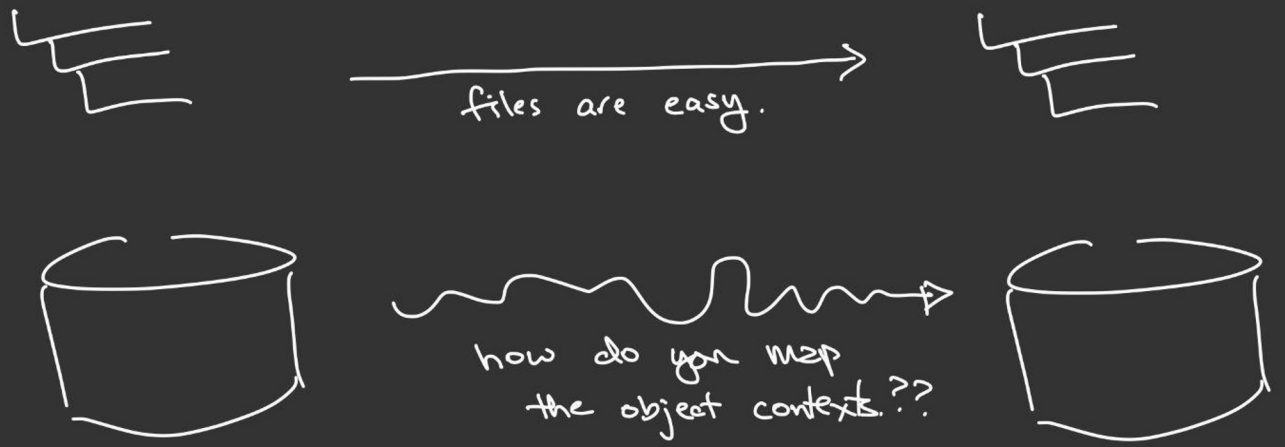
4. OMERO ("remote objects") 2007 - 2012



5. OMERO ("remote objects") 2012 ++



Intermission : transfer use-case



OMERO DB is an overlay!

Intermission : transfer use-case

Solution 1. Solve the whole problem → NGFF

Solution 2. Just do it

XML
+
lots of creative uses of annotations

... RDF?

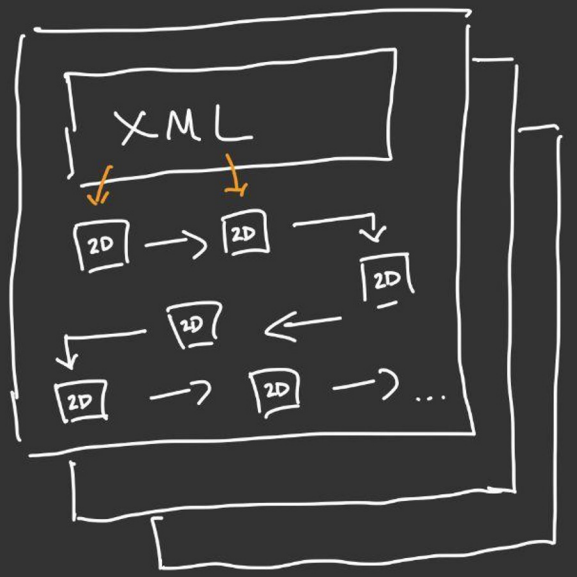
6. OME-Zarr 2018++

filesystem
or collection of files.

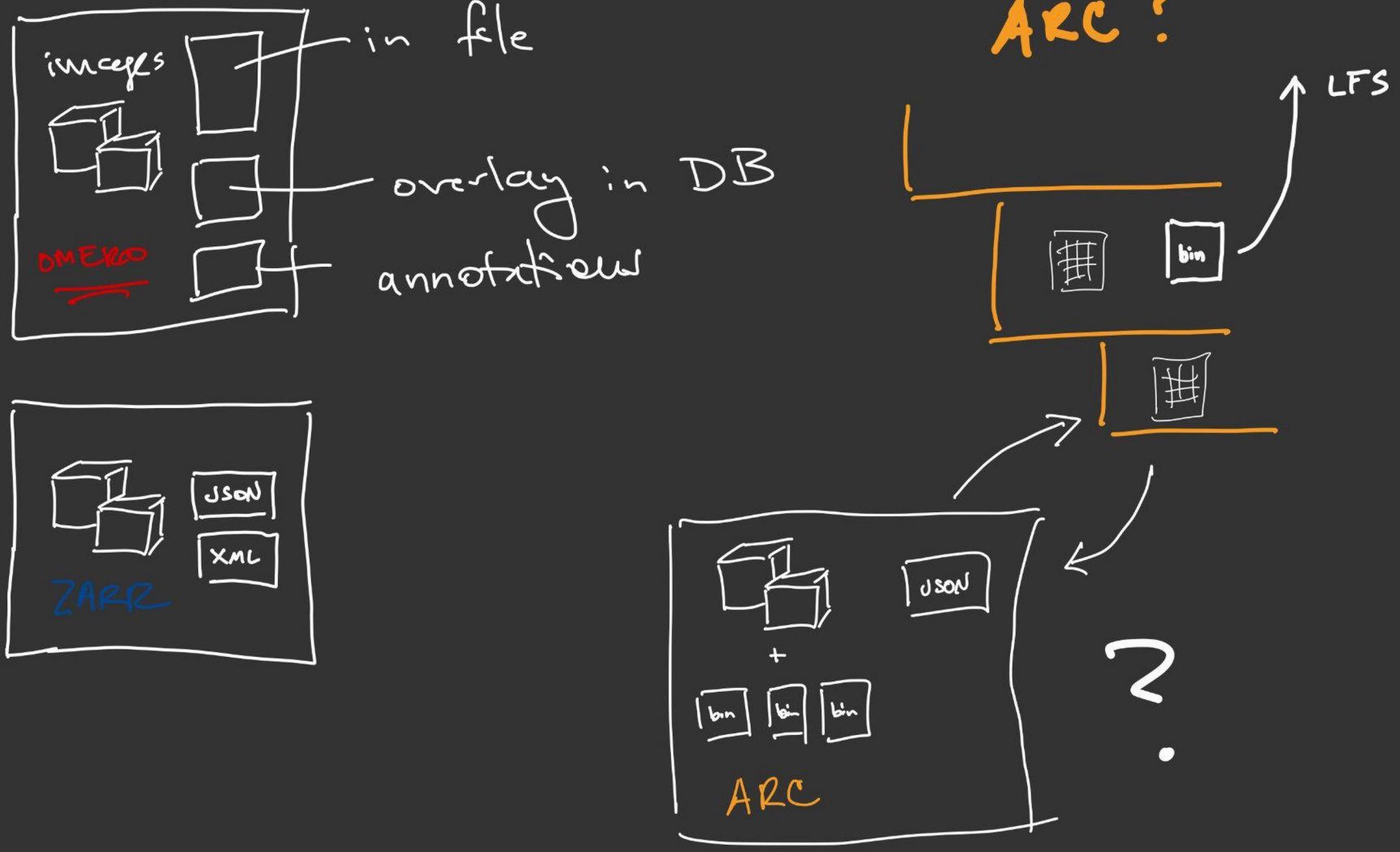
Bio-Formats
(ome.zarr too!)

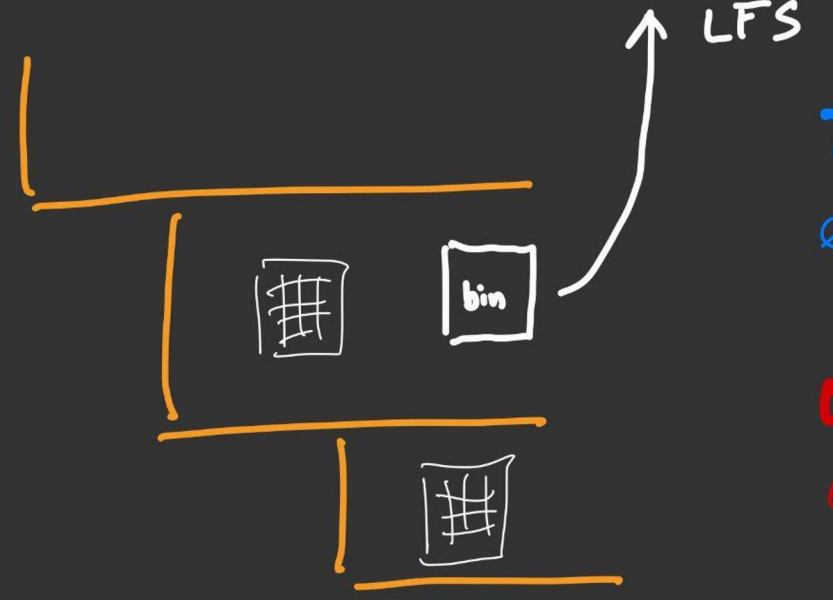
image_0 + metadata
image_1 + metadata
...
image_N + metadata

OME-TIFF



ideography


in file
overlay in DB
annotations
OMERO
JSON
XML
ZARR
ARC?
LFS
bin
JSON
+
bin
bin
bin
ARC
?



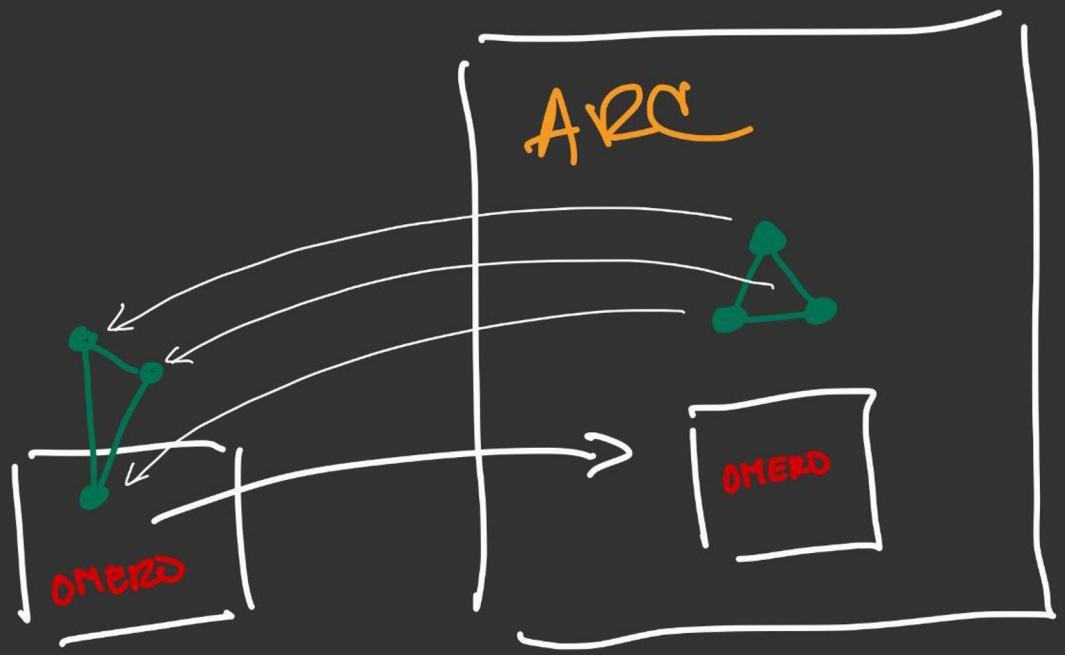
IFF

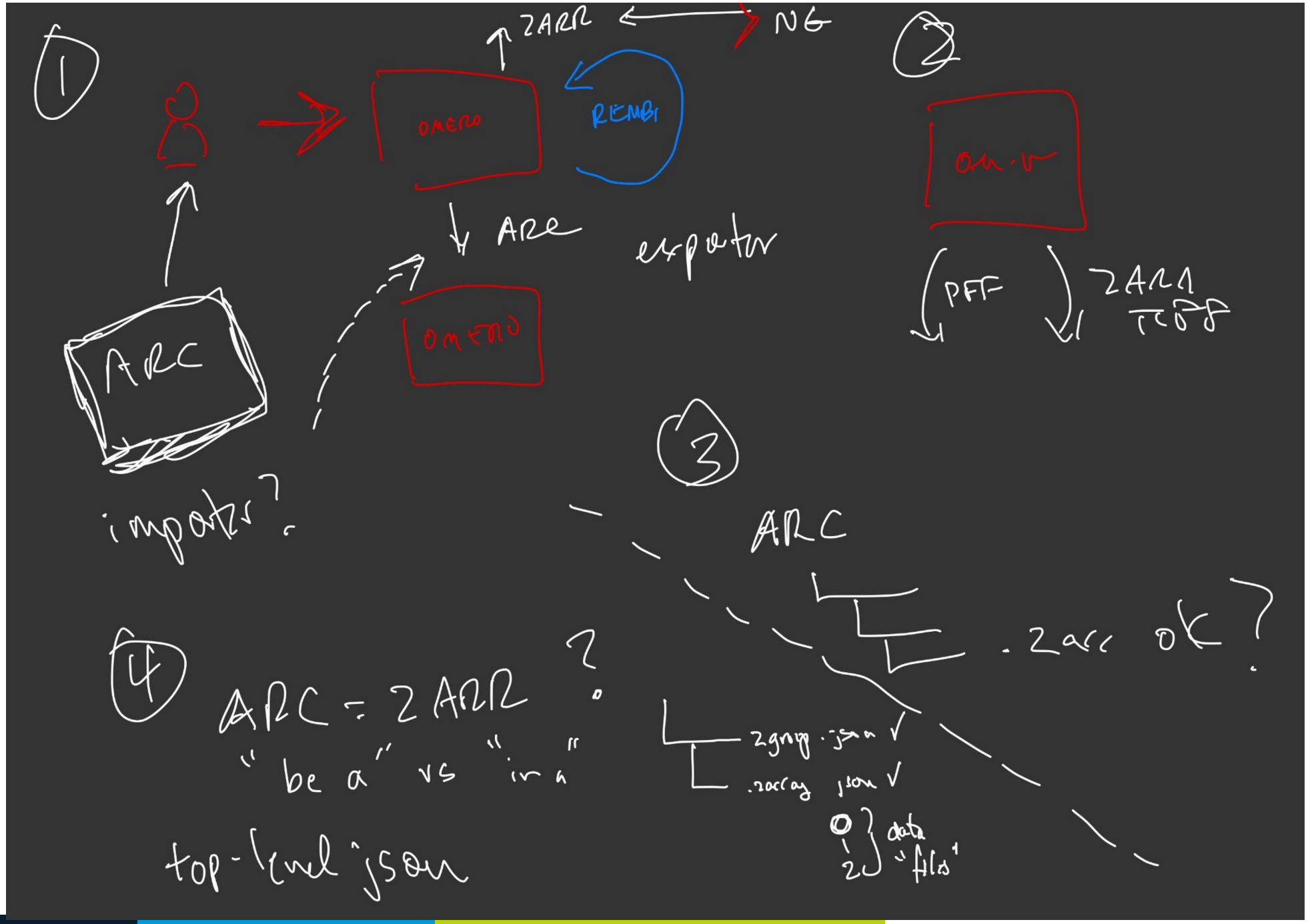
ZARR: ✓

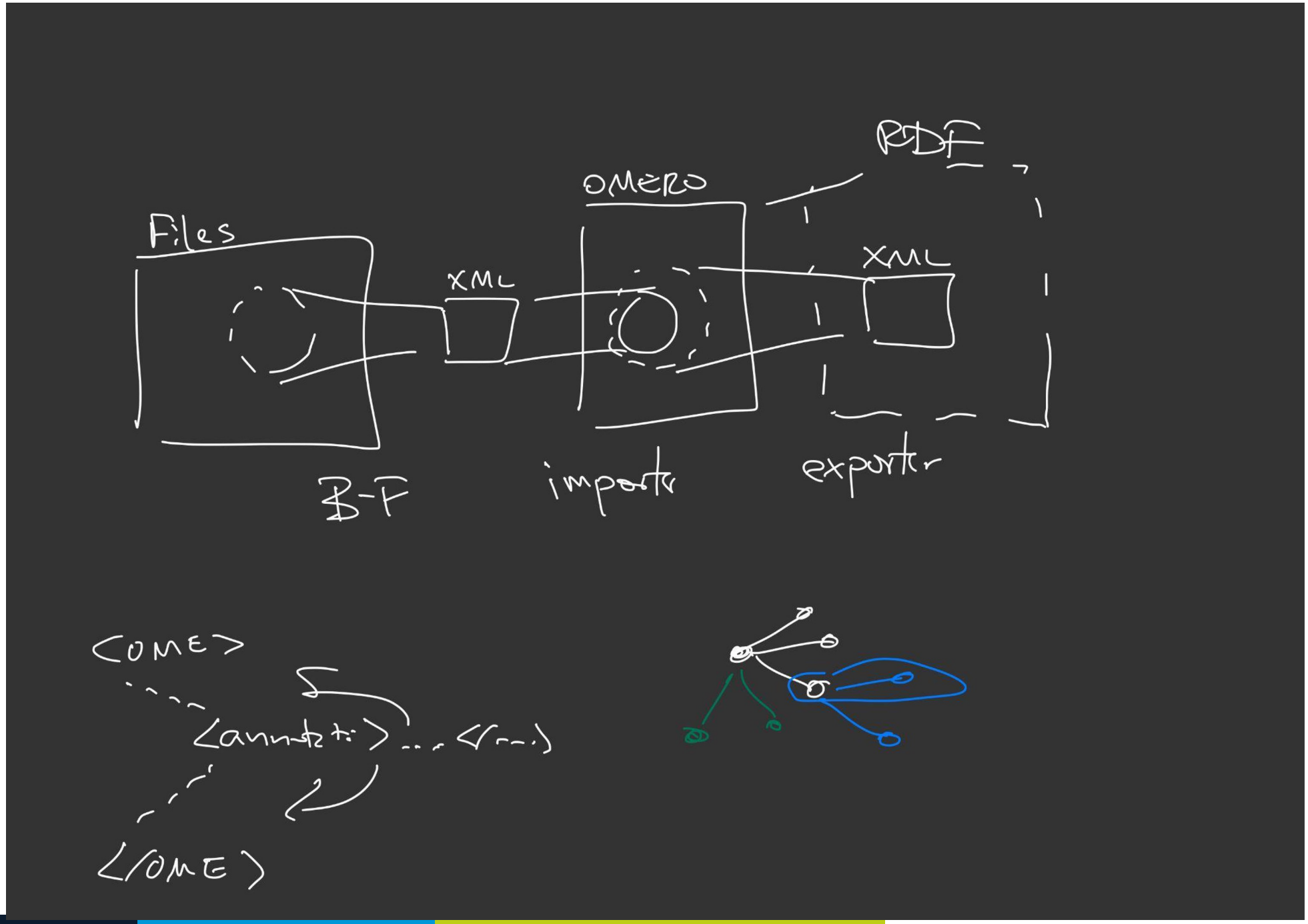
except LOTS of these

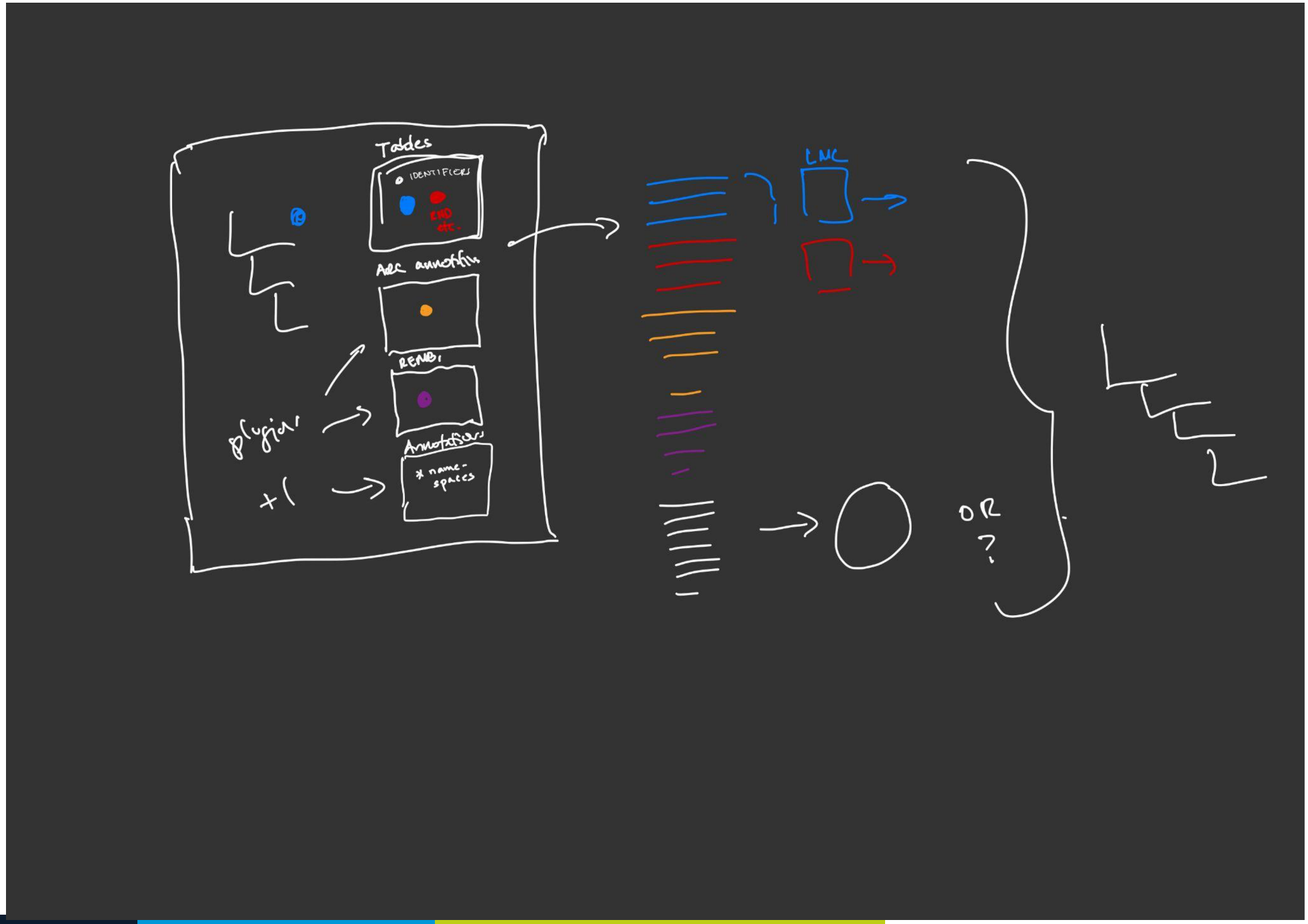
OMERO: ✓

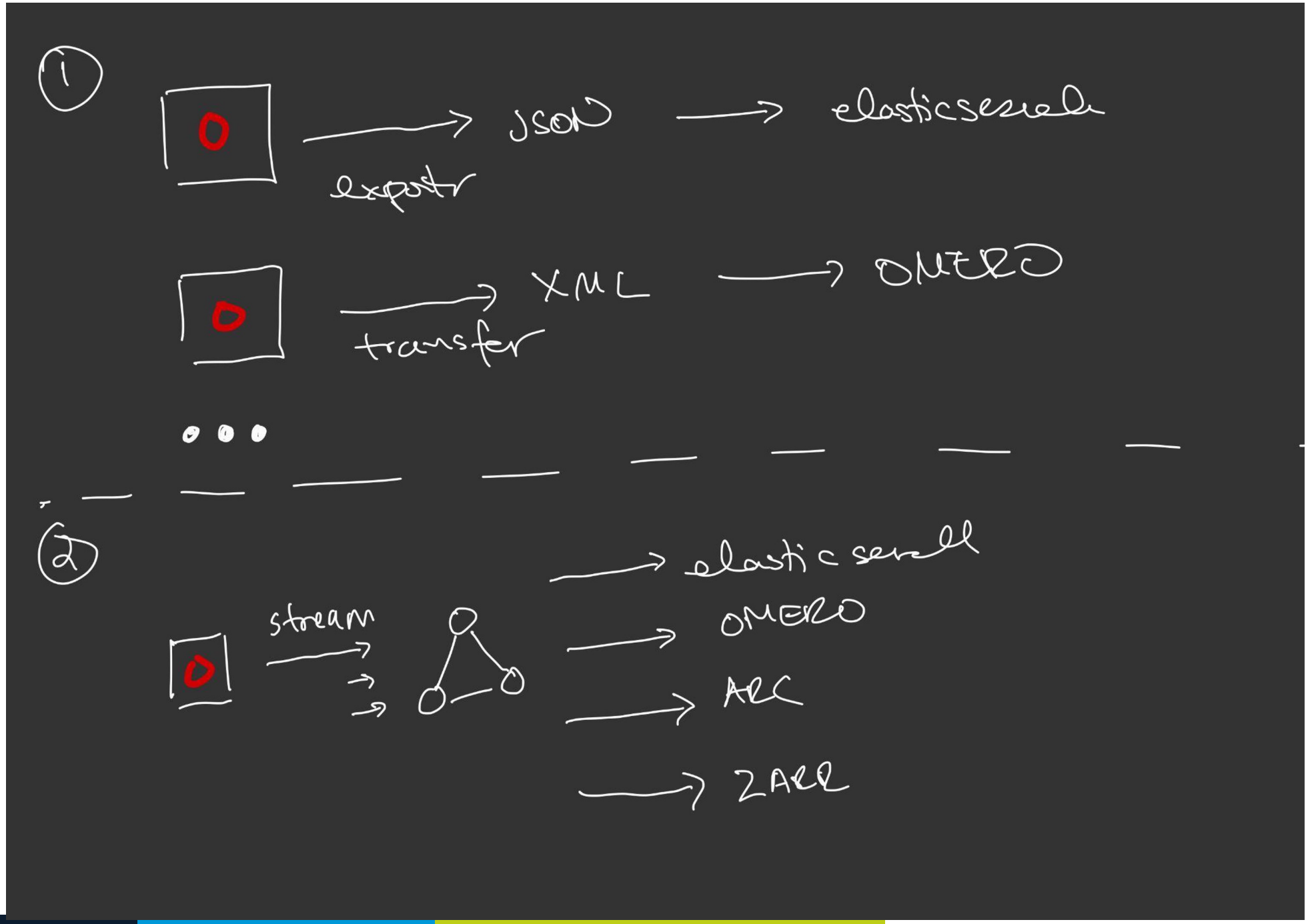
except no management of files


ARC
OMERO
OMERO


1
2ARR
NG
OMERO
REMBI
ARC
2
OME.tif
PFF
2ARR
TIFF
ARE
exporter
OMERO
importer?
3
ARC
.2arc ok?
2group.json ✓
.2array.json ✓
0
1
2
data "files"
4
ARC = 2ARR ?
"be a" vs "in a"
top-level json


RDF
OMERO
Files
XML
XML
B-F
importer
exporter
<OME>
<annotation> ... </...>
</OME>


Todos
IDENTIFIERS
ROI
etc.
Arc annotations
RENDER
plugins
+(
Annotations
* name-spaces
LMC
OR
?


1
JSON
elasticsearch
exporter
XML
OMERO
transfer
2
elasticsearch
stream
OMERO
ARC
ZARR