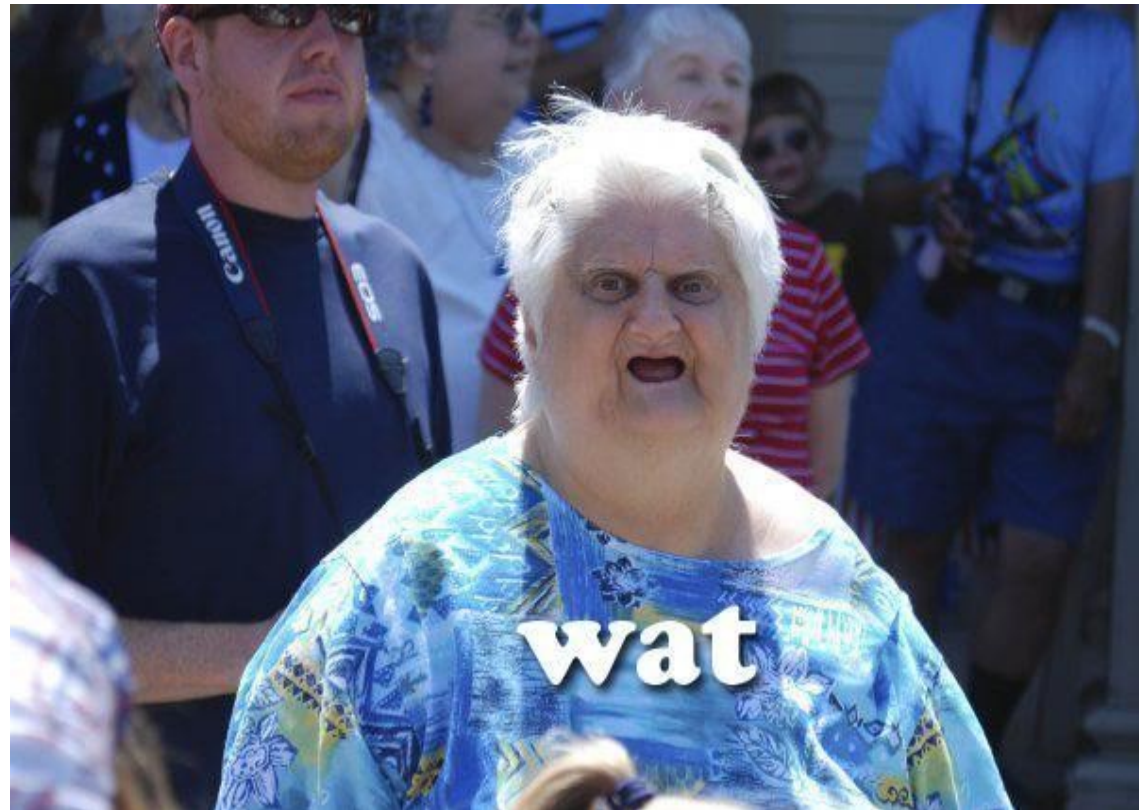

HIPSTER BINGO - OR HOW TO USE DOCKER/KUBERNETES/CRI-O TO DEPLOY LIBREOFFICE ONLINE WITH STYLE

CIB SOFTWARE GMBH
LIBREOFFICE CONFERENCE ROME
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„I HAVE 30 MINUTES TO SETUP LOOL“





The problem?

- > multiple server instances
 - > multiple services
 - > needs SSL really
 - > available documentation rather for larger/classical enterprise setups
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Setup docker

- > see <https://docs.docker.com/engine/installation/linux/docker-ce/debian/>
 - > i.e. add <https://download.docker.com/linux/<release>> to sources.list
 - > `$ apt-get install docker-ce`
 - > but hmm - then on debian 8 (jessie), your default storage driver is AUFS
 - > for a variety of reasons (see later), you want to switch this to devicemapper:
 - `$ vi /etc/docker/daemon.json`
 - `-> "storage-driver": "devicemapper"`
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Setup docker (2)

- > meh, then needs re-pulling all images..
- > make this persistent:
 - \$ `systemctl start docker.service`
 - \$ `systemctl enable docker.service`



Are we lucky yet?

- > we need a file management / frontend anyway:
 - `$ git clone https://github.com/nextcloud/docker.git`
 - `less README.md`
 - oh dear oh dear - fpm, reverse proxies, SSL certs
 - but wait!



There's more to docker (and kubernetes/cri-o)

- > `$ cd examples; docker-compose up`
 - > hmm, debian does not have it...
 - > getting docker-compose to run on debian8:
 - <http://blog.programster.org/debian-8-install-docker-compose/>
 - `$ pip install --user docker-compose`
 - > good, there we go
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There's more to docker-compose...

- > read up here: <https://docs.docker.com/compose/>
 - > or here:
<https://blog.codeship.com/orchestrate-containers-for-development-with-docker-compose/>
 - > do some custom stuff then:
 - environment:
 - domain=\${DOMAIN}
 - username= <admin>
 - password= <password>
 - DONT_GEN_SSL_CERT=true
 - server_name=\${DOMAIN}
-

Custom stuff so far

- > `$ git remote add thb
git@github.com:thorstenb/docker.git`
 - newer letsencrypt-companion
 - add some container links
 - merged nginx proxy changes from collabora
 - move lool rewrites up, so funny url encodings don't get picked up
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Now decide on the LibreOffice Online flavour

- > <https://hub.docker.com/r/libreoffice/online/>
 - > <https://hub.docker.com/r/thedarkknight/libreoffice-online-unlimited/>
 - > or roll your own (slightly simplified):
 - FROM <base_image>
 - RUN bash install-libreoffice.sh
 - so this simply needs to stick the binaries somewhere - no need for packaging
 - CMD bash start-libreoffice.sh
 - > they both need capabilities (and thusly extended FS attributes), so you need a reasonably recent Linux base (Debian Jessie *does* work though)
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Time to kick it off!

- > `$ DOMAIN=vm184.documentfoundation.org`
`docker-compose up`
 - > test instance:
<https://vm184.documentfoundation.org/>
 - > enable richdocuments plugin
 - `$ docker exec -it nextcloud_fpm /bin/bash`
 - `$./occ app:enable richdocuments`
 - `$./occ config:app:set richdocuments wopi_url --value="https://app"`
-



Remaining issues

- > external vs. internal networking
 - > SSL certificate only for the external domain
 - > WOPI host is 'app' host, not the public url for loolwsd
 - > some hacks here:
<https://github.com:thorstenb/richdocuments>
-

Changes to richdocuments php app

> Load denied by X-Frame-Options

- ah - so wsd/FileServer uses a hack to set X-Frame-Options from WOPIsrc, if referer is not set
 - that looks like a nice fix:
<https://help.nextcloud.com/t/solved-restore-http-referer-inside-an-app/6266>
 - added that fix to nginx config - just don't mess with referrer
 - more tweaks in the richdocuments repo
 - set referrer to origin
 - wopi file host hardcoded for the moment - since it's tied to frontend urls
 - hardcode frontend url as allowed frame domain
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Demo!

- > let's see if we butter-fingered it :)
 - > <https://vm184.documentfoundation.org/>
 - > <https://cloud.google.com/container-engine/> - free trial
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Hosting options

- > idiot-proof docker hosting - <https://sloppy.io/>
 - > GKE - <https://cloud.google.com/container-engine/>
 - > kubernetes help:
 - <https://tutorials.ubuntu.com/tutorial/install-kubernetes-with-conjure-up?backURL=%2F>
 - <https://tutorials.ubuntu.com/tutorial/get-started-canonical-kubernetes?backURL=%2F>
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Random others links & pointers

- > oh nice load balancing for nginx -
https://nginx.org/en/docs/http/nginx_http_upstream_module.html#upstream
 - > kompose - convert from docker-compose to kubernetes:
 - <https://github.com/kubernetes/kompose>
 - <http://blog.kubernetes.io/2016/11/kompose-tool-go-from-docker-compose-to-kubernetes.html>
 - > cri-o - container runtime initiative - if you want to run this in your private cloud
 - > plus <https://github.com/virt-manager/virt-bootstrap> from Cedric - extracting the meat out of docker images & run the workload via libvirt-lxc
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THANK YOU!



OUR PRODUCTS:

[HTTP://LIBREOFFICE.CIB.DE/](http://libreoffice.cib.de/)

WE CAN HELP:

[HTTP://LIBREOFFICE.CIB.DE/SUPPORT](http://libreoffice.cib.de/support)



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