

Wide Field Astronomy Unit (WFAU)

Docker deployment

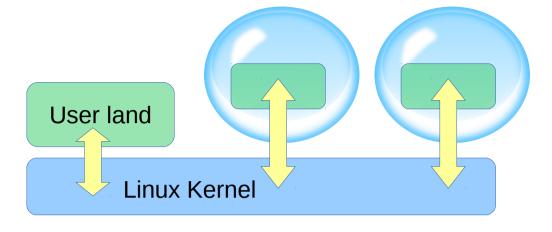




What is a container?







Linux name space = bubble

What it is not





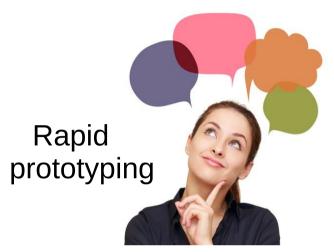


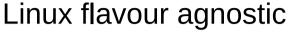


- Standard shape
- Standard connectors



Why use Docker ...







Platform independent







Documented configuration



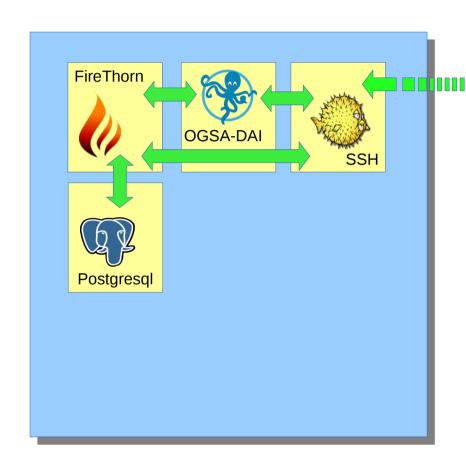
- Version info
- Dependencies

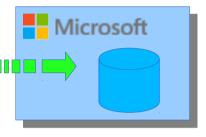


Webapp – service deployment



Docker containers inside a virtual machine





Separate container for each Component

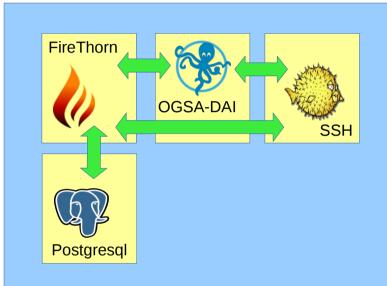
- PostgreSQL
- SQLServer proxy
- OGSA-DAI in Tomcat
- FireThorn in Tomcat



- Basic shell script to launch
- Not using Docker Compose (yet)



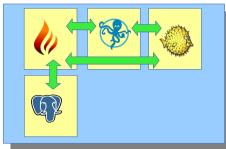
Reproducible testing (in testing)

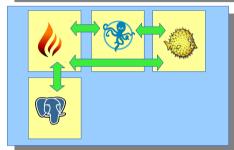


- 30 sec to create VM
- 30 sec to create containers

Quick and easy developer testing

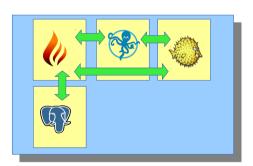


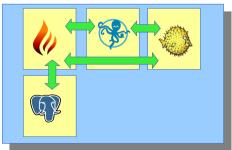




Long duration testing



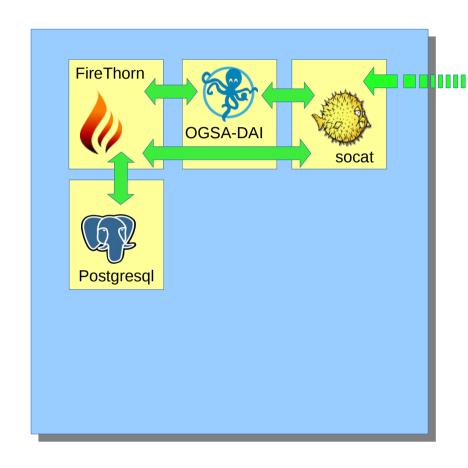


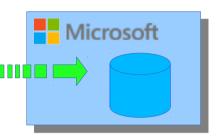






Reproducible deployment (in development)





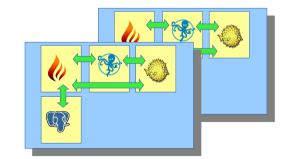
Documented configuration



- Version info
- Dependencies
- Historical archive









Maven - application deployment (in use)











Maven running in a container, deploying our webaps into Tomcat in containers





IvoaTex - application deployment (in use)













https://github.com/ivoa/ivoatex





Future

UWS job runner

LSST tools



Issues

Resources – logging to stdout

Security – root access to the host

Tracking – who is running what



Tricks and tips

Ambassador – socat or ssh

Unix sockets – Docker, SSH and X

Normal user - notroot