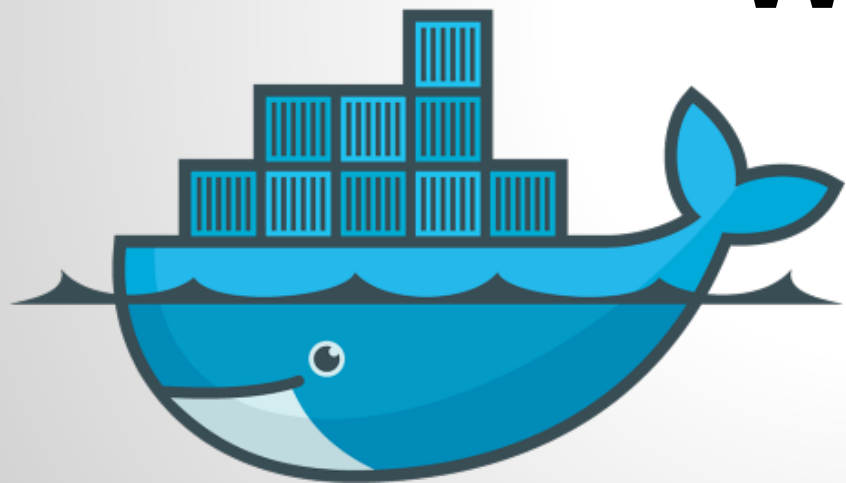


Who

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What

DOCKER

Build, Ship and Run
Any App, Anywhere

Why

Shipping code to the server is too hard

Why

Cargo Transport Pre-1960: Another Matrix from Hell

Multiplicity of Goods



Do I worry about
how goods interact
(e.g. coffee beans
next to spices)

Multiplicity of
methods for
transporting/storing



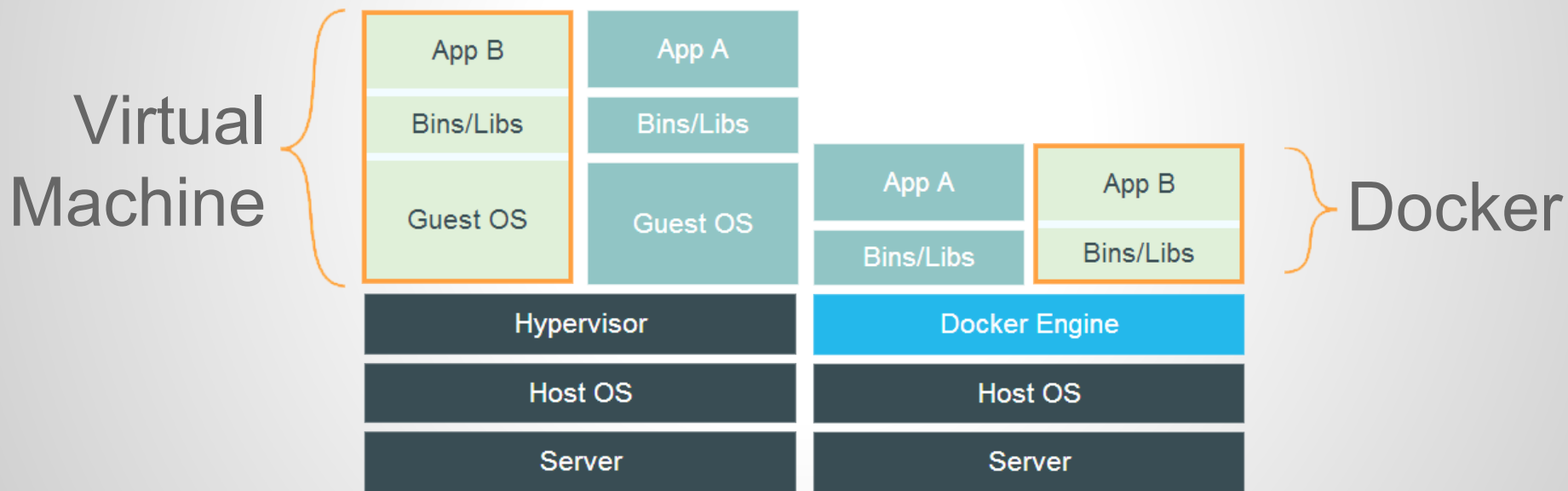
Can I transport quickly
and smoothly
(e.g. from boat to train
to truck)

Why

Solution: Intermodal Shipping Container



How



How

Linux Containers (LCX)

From inside it looks like a VM

chroot on steroids

How

Dockerfiles

```
FROM ubuntu:13.10
```

```
MAINTAINER Anton "anton@deadlock.se"
```

```
RUN apt-get update
```

```
RUN apt-get install -y python
```

```
EXPOSE 80
```

```
CMD ["python", "-m", "SimpleHTTPServer"]
```


Django

Writing a Dockerfile to deploy Django

Django Setup

FROM ubuntu:13.10

MAINTAINER Anton "anton@deadlock.se"

RUN apt-get update

RUN apt-get install -y build-essential python python-dev \
python-pip openssh-server supervisor

RUN pip install virtualenv uwsgi

Django SSH

EXPOSE 22

ADD public_key /root/.ssh/authorized_keys

RUN sed -i 's/UsePAM yes/UsePAM no/g' /etc/ssh/sshd_config

RUN mkdir /var/run/sshd

Django Supervisor

```
ADD supervisor.conf /etc/supervisor/supervisord.conf  
EXPOSE 8000
```

supervisor.conf:

```
[program:deadlock_web]  
stopsignal=QUIT  
priority=10  
directory=/etc/apps/deadlock_web
```

Django Supervisor

supervisor.conf:

command=uwsgi

```
--http-socket 0.0.0.0:8000 -p 4 -b 32768 -T --master  
--max-requests 5000 -H /etc/ve/deadlock_web/  
--static-map /static=/etc/apps/deadlock_web/static_root  
--static-map /static=/etc/ve/deadlock_web/lib/python2.7/\  
                site-packages/django/contrib/admin/static  
--module deadlock.wsgi:application  
--env DJANGO_SETTINGS_MODULE="deadlock.local_settings"
```

user=root

autostart=true

autorestart=true

Django Upload

```
RUN virtualenv /etc/ve/deadlock_web
```

```
RUN mkdir -p /etc/apps/deadlock_web
```

```
ADD manage.py /etc/apps/deadlock_web/  
ADD requirements.txt /etc/apps/deadlock_web/  
ADD deadlock/ /etc/apps/deadlock_web/deadlock/  
ADD blog/ /etc/apps/deadlock_web/blog/  
ADD ckeditor/ /etc/apps/deadlock_web/ckeditor/  
ADD templates/ /etc/apps/deadlock_web/templates/  
ADD static/ /etc/apps/deadlock_web/static/  
ADD local_settings_deploy.py \  
    /etc/apps/deadlock_web/deadlock/local_settings.py  
ADD adminpass.txt /etc/apps/deadlock_web/adminpass.txt
```

Django Deploy

```
RUN /etc/ve/deadlock_web/bin/pip install -r \  
    /etc/apps/deadlock_web/requirements.txt
```

```
RUN (cd /etc/apps/deadlock_web/ &&  
/etc/ve/deadlock_web/bin/python  
    \ manage.py syncdb --noinput --settings=deadlock.  
local_settings)
```

```
RUN (cd /etc/apps/deadlock_web/ &&  
/etc/ve/deadlock_web/bin/python    manage.py collectstatic --  
noinput    --settings=deadlock.local_settings)
```

Django Deploy

```
RUN (cd /etc/apps/deadlock_web/ && echo \  
    "from django.contrib.auth.models import User;  
    User.objects.create_superuser('anton', 'anton@deadlock.com',  
    '`cat adminpass.txt`')" \  
    | /etc/ve/deadlock_web/bin/python manage.py shell  
    --settings=deadlock.local_settings)
```

```
RUN (cd /etc/apps/deadlock_web/ && rm adminpass.txt)
```


Django Run

CMD ["supervisord", "-n"]

Django Demo

Let's try a demo!

Questions?

Code

<https://github.com/Lingonsylt/deadlock/tree/dockerpresentation>

Anton Blomberg

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