



# Introduction to Docker images registry and build jobs

Session 1

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# Docker QUICK intro



- › Containers help application to package all its deps and libs into a single package.
- › Docker will ease the build, deploy and run of applications via containers.
- › Packaging structure in a docker is called as an image.
- › Image in action is called as Container.
- › Images can run on any Linux Containers.
- › Not a VM, as it uses the local Kernel for the application support

# Docker INSTALLATION

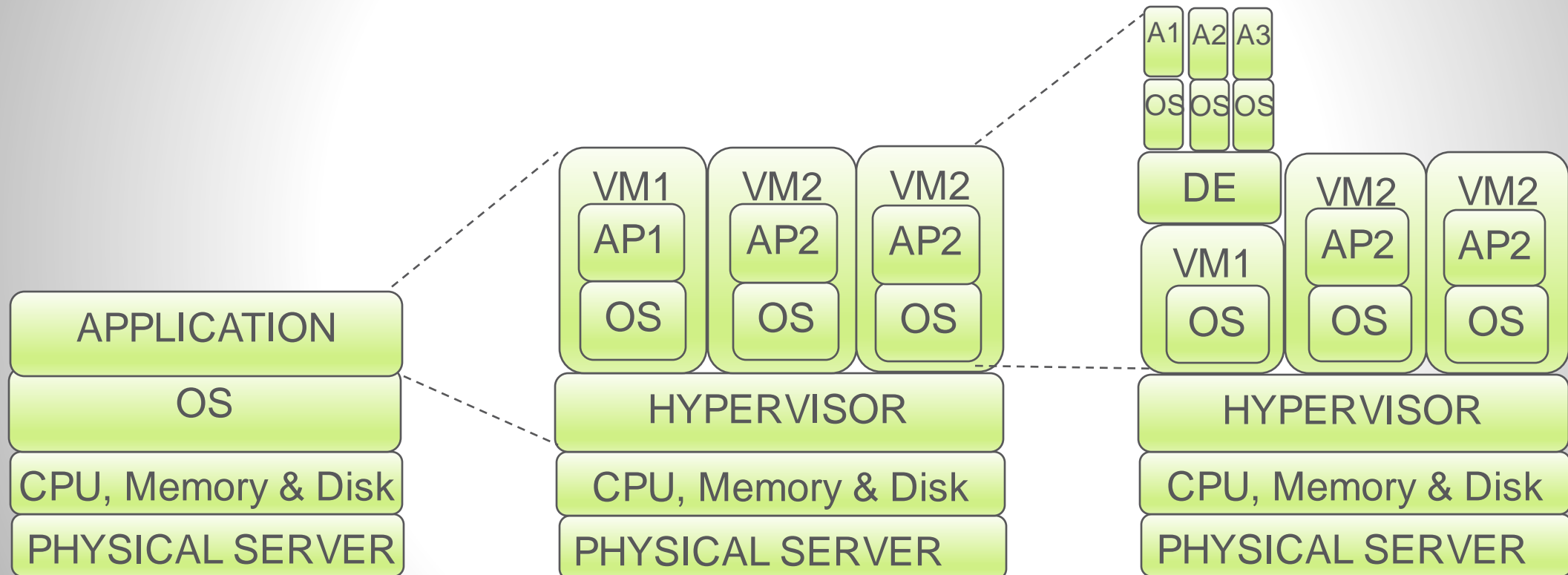


REQ: Docker for Windows runs on 64-bit Windows 10 Pro

1. [Download Docker](#).

- › Double-click InstallDocker.msi to run the installer.
- › Follow the Install Wizard: accept the license, authorize the installer, and proceed with the install.
- › Click Finish to launch Docker.
- › Docker starts automatically.
- › Docker loads a “Welcome” window giving you tips and access to the Docker documentation.

# Physical vs VM vs container



# Docker file, image & container



## › Dockerfile:

- Base for building a docker image
- Contains what to build in a docker image
- Main components are
  - › Dependencies
  - › Installations
  - › Application

## › Image:

- A template created by running Dockerfile
- Layered Architecture
- Each of the above layer is dependent on below ones

## › Container:

- Image in action
- Use the system resources to make it active

```
ARG BASE_IMAGE=armdocker.rnd.ericsson.se/proj-avm/sles15-wildfly-sql:latest
FROM ${BASE_IMAGE}

ARG IMG_NAME=eric-ecm-wildfly-master

LABEL org.label-schema.name=$NAME \

ENV METASPACE_SIZE 96
ENV MAX_METASPACE_SIZE 256

RUN zypper -n --no-gpg-checks install sudo util-linux \
    && mkdir -p /opt/jboss/license \
    && chmod 777 /opt/jboss/license

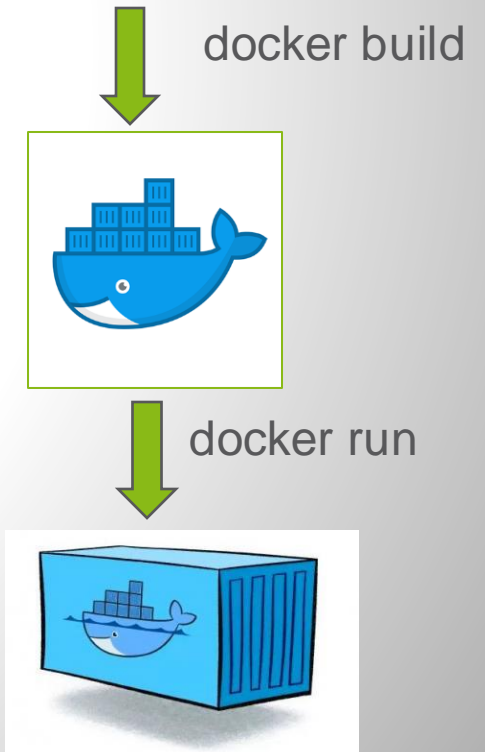
COPY certs/client /certs/client
COPY certs/sip/credentials/certpass.txt /certs/sip/credentials/certpass.txt

# Add JMX user
RUN /opt/jboss/wildfly/bin/add-user.sh $APS_USERNAME $APS_PASSWORD --silent

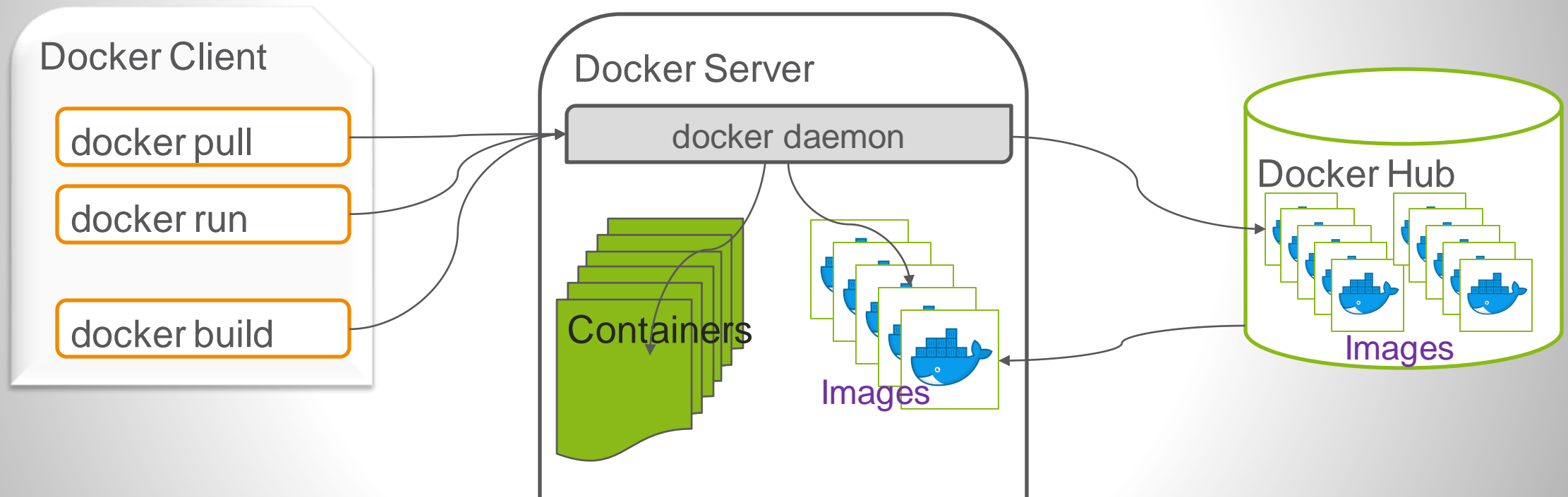
RUN chown -R jboss:0 /opt/ECM_${BUILD_VERSION} \
    && chmod 775 /usr/lib \
    && chown -R jboss:0 ${JBoss_HOME}

USER 1000

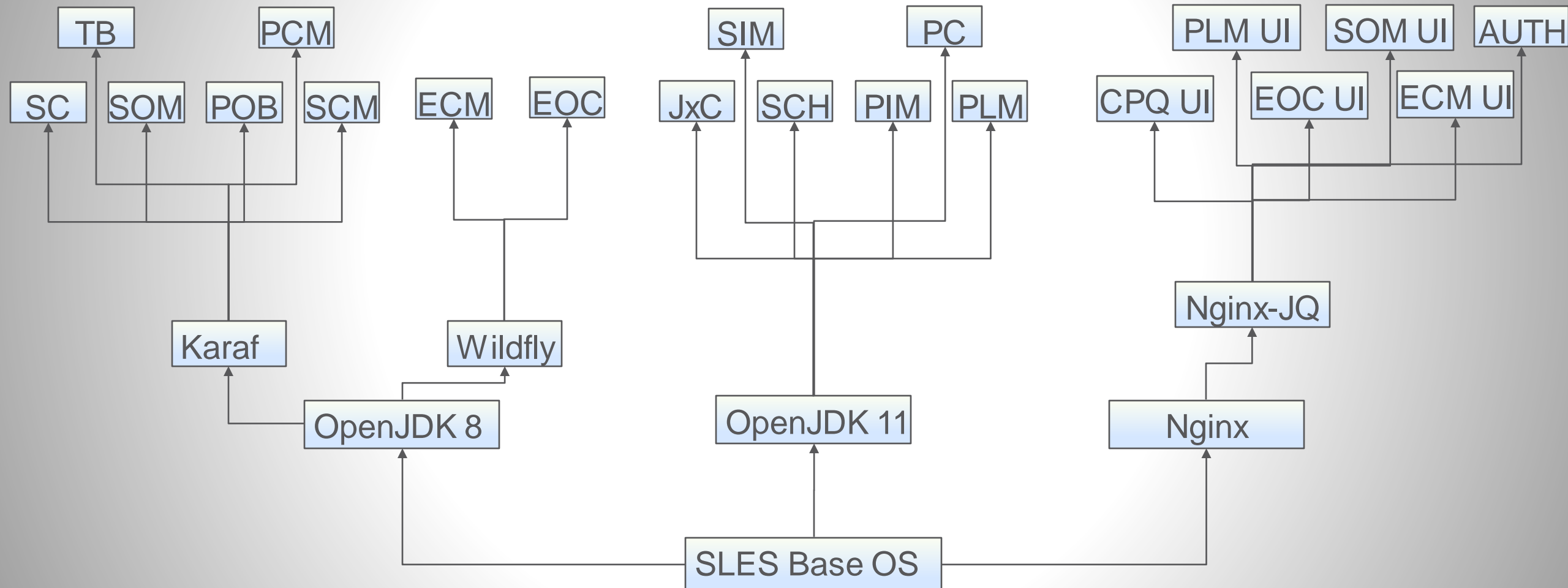
CMD ["sh", "-c", "${INSTALL_PATH}/umi/scripts/init_wildfly.sh"]
```



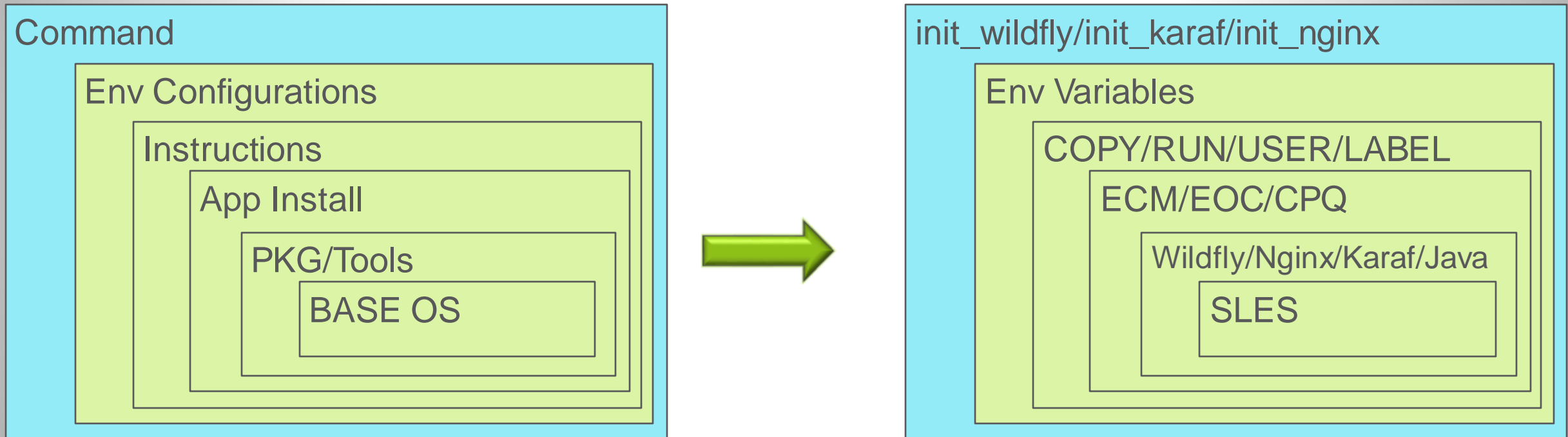
# Working principle



# Product image hierarchy



# Image layer understanding



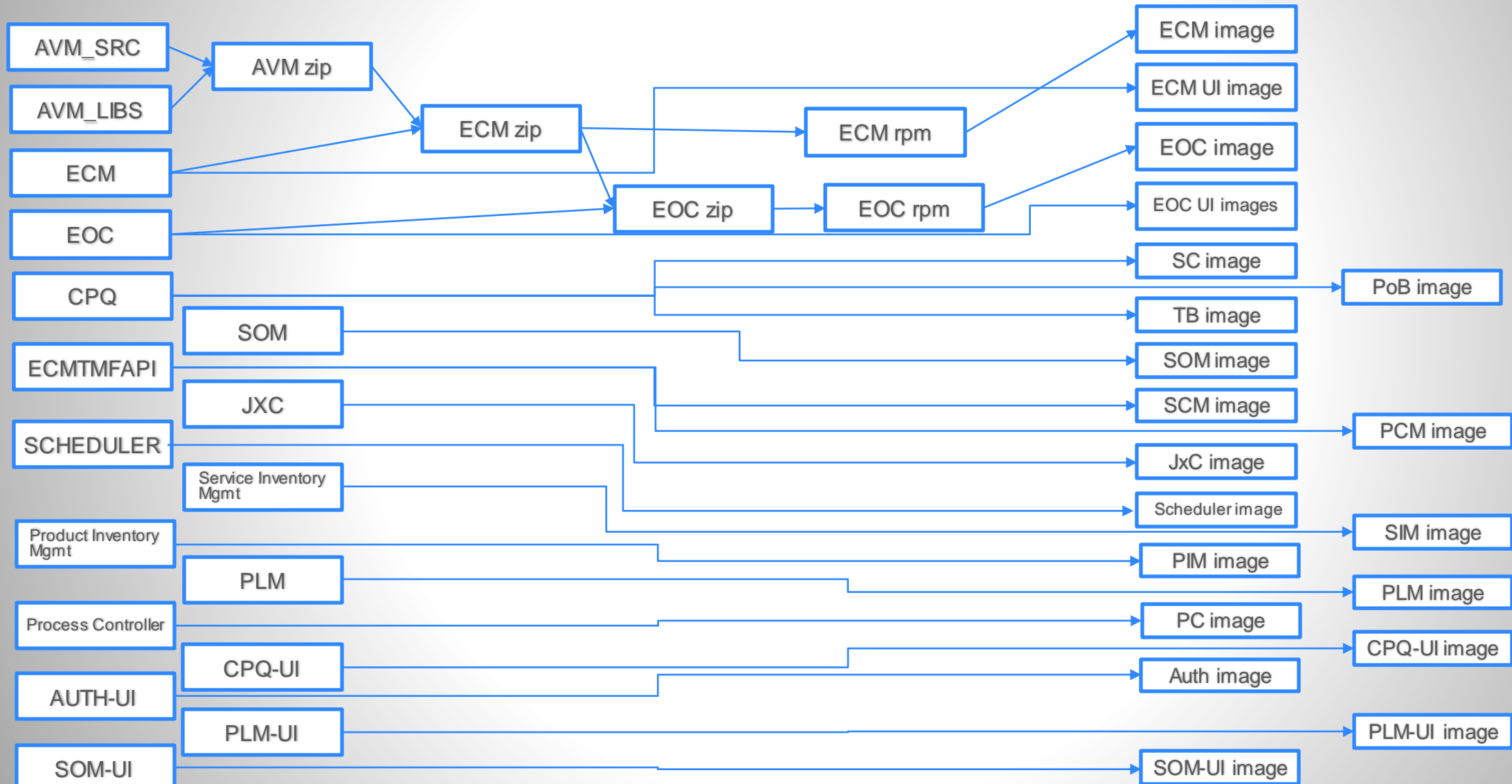


# How container better than vm



- › Image creation is faster in Docker/Container than in VM
- › Container Startup time is faster than VM startup
- › More Portability and Modularity then VM
- › Versioning of Images
- › Containers are Application Centric and VMs are Hardware Centric
- › Due to Layered Architecture Docker Images are less in size
- › Easy Scalability and Maintenance

# Repo and image build process



# Build jobs and registry details



## AVM

Image	Jenkins Job	Registry URL
ECM	<a href="https://river.internal.ericsson.com/jenkins/job/coc-umi/job/develop/job/build-ecm-docker-images/">https://river.internal.ericsson.com/jenkins/job/coc-umi/job/develop/job/build-ecm-docker-images/</a>	armdocker.rnd.ericsson.se/proj-avm/eric-ecm-wildfly-master armdocker.rnd.ericsson.se/proj-avm/eric-ecm-wildfly-worker
EOC	<a href="https://river.internal.ericsson.com/jenkins/job/coc-umi/job/develop/job/build-eoc-docker-images/">https://river.internal.ericsson.com/jenkins/job/coc-umi/job/develop/job/build-eoc-docker-images/</a>	armdocker.rnd.ericsson.se/proj-avm/eric-eoc-wildfly-master armdocker.rnd.ericsson.se/proj-avm/eric-eoc-wildfly-worker

## OSGi/Karaf

Image	Jenkins Job	Registry URL
Shopping Cart	<a href="http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_cpqbe/">http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_cpqbe/</a>	armdocker.rnd.ericsson.se/proj-cpq/eric-eoc-shoppingcart
PoB	<a href="http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_cpqbe/">http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_cpqbe/</a>	armdocker.rnd.ericsson.se/proj-ecm/eric-ecm-pobrowsing
Technical Browsing	<a href="http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_cpqbe/">http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_cpqbe/</a>	armdocker.rnd.ericsson.se/proj-ecm/eric-ecm-technicalbrowsing
SOM	<a href="http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_som/">http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_som/</a>	armdocker.rnd.ericsson.se/proj-eoc/eric-eoc-som
SCM	<a href="http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_ecmTmfApi/">http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_ecmTmfApi/</a>	armdocker.rnd.ericsson.se/proj-ecm/eric-bss-ecm-scm
PCM	<a href="http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_ecmTmfApi/">http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_ecmTmfApi/</a>	armdocker.rnd.ericsson.se/proj-ecm/eric-bss-ecm-pcm

# Build jobs and registry details



## SPRINGBOOT

Image	Jenkins Job	Registry URL
JxC	<a href="http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_jxc/">http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_jxc/</a>	armdocker.rnd.ericsson.se/proj-cpq/eric-eoc-jxc
Scheduler	<a href="http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_cpqbe_scheduler/">http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_cpqbe_scheduler/</a>	armdocker.rnd.ericsson.se/proj-cpq/eric-eoc-scheduler
SIM	<a href="http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_sim/">http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_sim/</a>	armdocker.rnd.ericsson.se/proj-eoc/eric-eoc-sim
PIM	<a href="http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_pim/">http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_pim/</a>	armdocker.rnd.ericsson.se/proj-eoc/eric-eoc-pim
PLM	<a href="http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_plm/">http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_plm/</a>	armdocker.rnd.ericsson.se/proj-ecm/eric-ecm-plm
Process Controller	<a href="http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_process-controller/">http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit_process-controller/</a>	armdocker.rnd.ericsson.se/proj-eoc/eric-eoc-process-controller

## UI/Nginx

Image	Jenkins Job	Registry URL
CPQ-UI	<a href="http://selius25384.seli.gic.ericsson.se:8080/job/postcommit-cpqui/">http://selius25384.seli.gic.ericsson.se:8080/job/postcommit-cpqui/</a>	armdocker.rnd.ericsson.se/proj-cpq/eric-eoc-cpq-ui
Auth	<a href="http://selius25384.seli.gic.ericsson.se:8080/job/postcommit-auth/">http://selius25384.seli.gic.ericsson.se:8080/job/postcommit-auth/</a>	armdocker.rnd.ericsson.se/proj-auth/eric-ecmeoc-login-ui
PLM-UI	<a href="http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit-plm-ui/">http://selius25384.seli.gic.ericsson.se:8080/job/postsubmit-plm-ui/</a>	armdocker.rnd.ericsson.se/proj-ecm/eric-ecm-plm-ui
SOM-UI	<a href="http://selius25384.seli.gic.ericsson.se:8080/job/postcommit-somui/">http://selius25384.seli.gic.ericsson.se:8080/job/postcommit-somui/</a>	armdocker.rnd.ericsson.se/proj-cpq/eric-eoc-som-ui
EOC-UI	<a href="https://river.internal.ericsson.com/jenkins/job/eoc/job/develop/job/ui-docker-images/">https://river.internal.ericsson.com/jenkins/job/eoc/job/develop/job/ui-docker-images/</a>	armdocker.rnd.ericsson.se/proj-avm/eric-eoc-omdashboard-ui armdocker.rnd.ericsson.se/proj-avm/eric-eoc-srviewer-ui armdocker.rnd.ericsson.se/proj-avm/eric-eoc-projectmanager-ui armdocker.rnd.ericsson.se/proj-avm/eric-eoc-iws-ui
ECM-UI	<a href="https://river.internal.ericsson.com/jenkins/job/ecm/job/build-offer-manager/">https://river.internal.ericsson.com/jenkins/job/ecm/job/build-offer-manager/</a>	armdocker.rnd.ericsson.se/proj-avm/eric-ecm-offermanager-ui

