



# ibi Golden Summit

**WebFOCUS Container Edition (CE) –  
All about - What you need to know ...**

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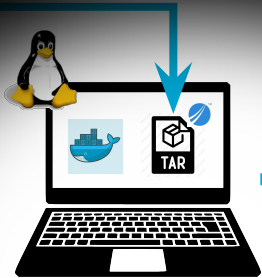
# Agenda

- High Level Overview of WebFOCUS Container Edition (CE)
- Quick Tour: Download to Deployment
- Deployment Considerations
- Deployment Scenarios
- Local Setup
- Deploying to Remote Kubernetes
- Deploying in the Cloud (EKS)
- Quick Peek Inside the WebFOCUS CE Tar File

# The Big Picture

ibi WebFOCUS Container Edition (CE) provides a scalable, microservices-based analytical platform designed for container-based deployments.

This offering provides packages ibi WebFOCUS software components in a container image, including all required OS components and libraries, which can be deployed and run in a Kubernetes cluster.



Build server

16 GB RAM  
4 CPU 3.x Ghz  
50 GB Free disk  
Docker

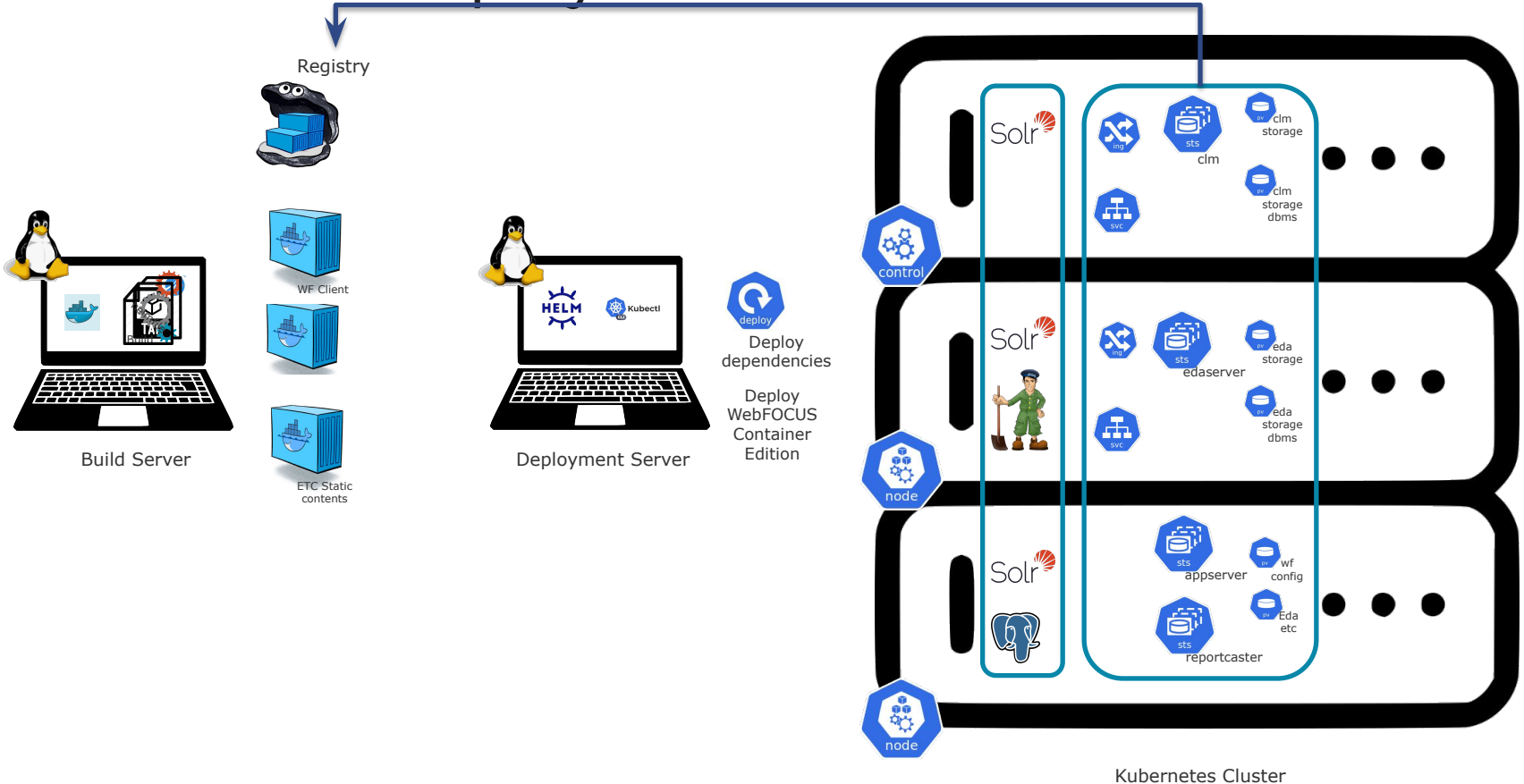


Deployment server

16 GB RAM  
4 CPU 3.x Ghz  
50 GB Free disk  
Docker

# Quick Tour

# Download to Deployment



# Things to Know Before You Start

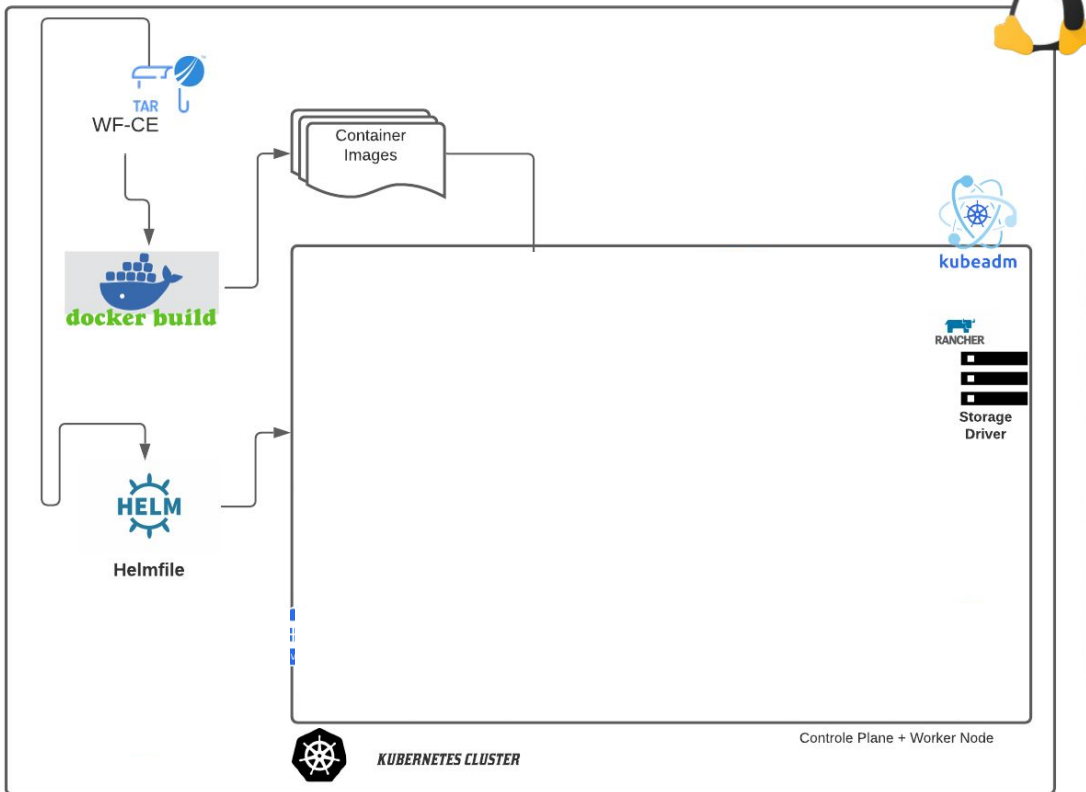
# What you should have handy before you start

(You will need to choose several components as well)

Required Component		Notes
TIBCO WebFOCUS CE	<ul style="list-style-type: none"><li>Request WebFOCUS CE <b>tar</b> file from TIBCO.<ul style="list-style-type: none"><li>RHEL 8.x – UBI based images</li><li>Webserver Jetty</li></ul></li></ul>	
Build Server (Linux)	<ul style="list-style-type: none"><li>Needs to be a reasonably fast machine.</li><li>Need to have Docker (19+) installed.</li><li>Needs access to Internet (to pull base images).</li><li>30+GB free disk space.</li><li>TIBCO WebFOCUS <b>CE</b> tar file downloaded.</li></ul>	
Deployment Server (Linux)	<ul style="list-style-type: none"><li>Kubectl installed and configured against cluster.</li><li>Helm and Helmfile installed.</li><li>TIBCO WebFOCUS <b>CE</b> tar file (or just the <i>scripts</i> folder copied from the Build server).</li></ul>	
Kubernetes	<ul style="list-style-type: none"><li>Local or remote Kubernetes (1.19+) cluster created using Kubeadm or any other supported method.</li><li>Container runtime – Docker</li><li>If the cluster is a multimode cluster, then a NFS based storage driver is needed that supports the <i>ReadWriteMany</i> access mode.</li><li>CNI that supports TCP and UDP traffic.</li></ul>	
Image Repository	<ul style="list-style-type: none"><li>Any image repository that can be accessed from your Kubernetes cluster (e.g., Docker, ECR).</li></ul>	
EKS ( <i>optional</i> )	<ul style="list-style-type: none"><li>Created using eksctl or any other method.</li><li>Need EFS CSI storage driver installed and enabled (backed by EFS volume).</li></ul>	
Load Balancer ( <i>optional</i> )	<ul style="list-style-type: none"><li>NGINX Ingress load balancer front ended by Network load balancer.</li></ul>	

# Deploying Locally

## Build + Deploy + Run on same box

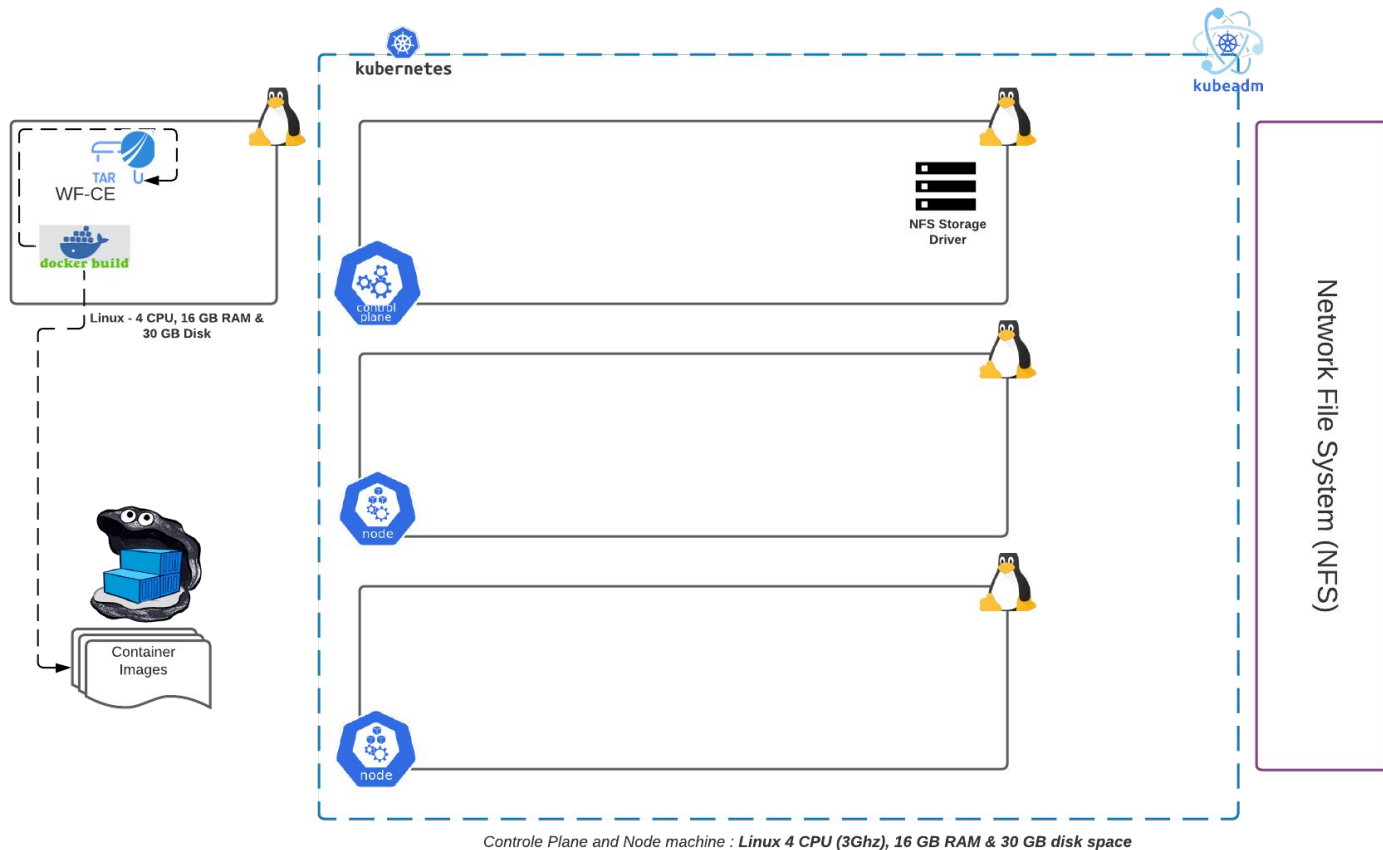


- ✓ Download WF-CE tar file?
- ✓ Container Images built?
- ✓ Local Kubernetes cluster ready?
- ✓ Is there a K8s Default Storage Class?
- ✓ Run Helmfile to deploy ancillary software – Solr, Zookeeper & PostgreSQL
- ✓ Run Helmfile to deploy WebFOCUS Container Edition
- ✓ Access WebFOCUS GUI in browser

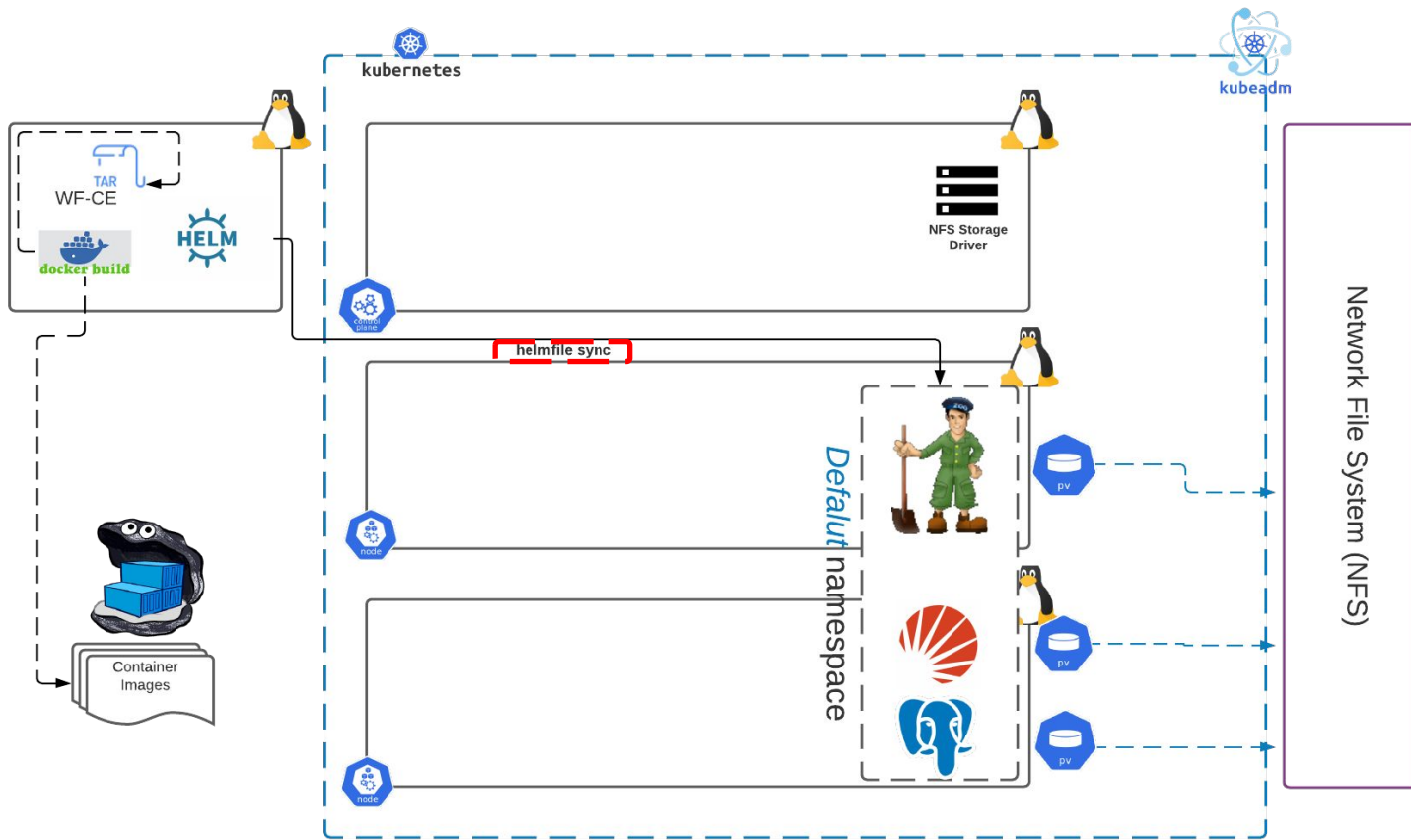
Linux machine with 4 CPU (3 Ghz), 16 GB RAM & 30 GB disk space

# Deploying to a Local Datacenter

# Deploy to remote kubernetes cluster

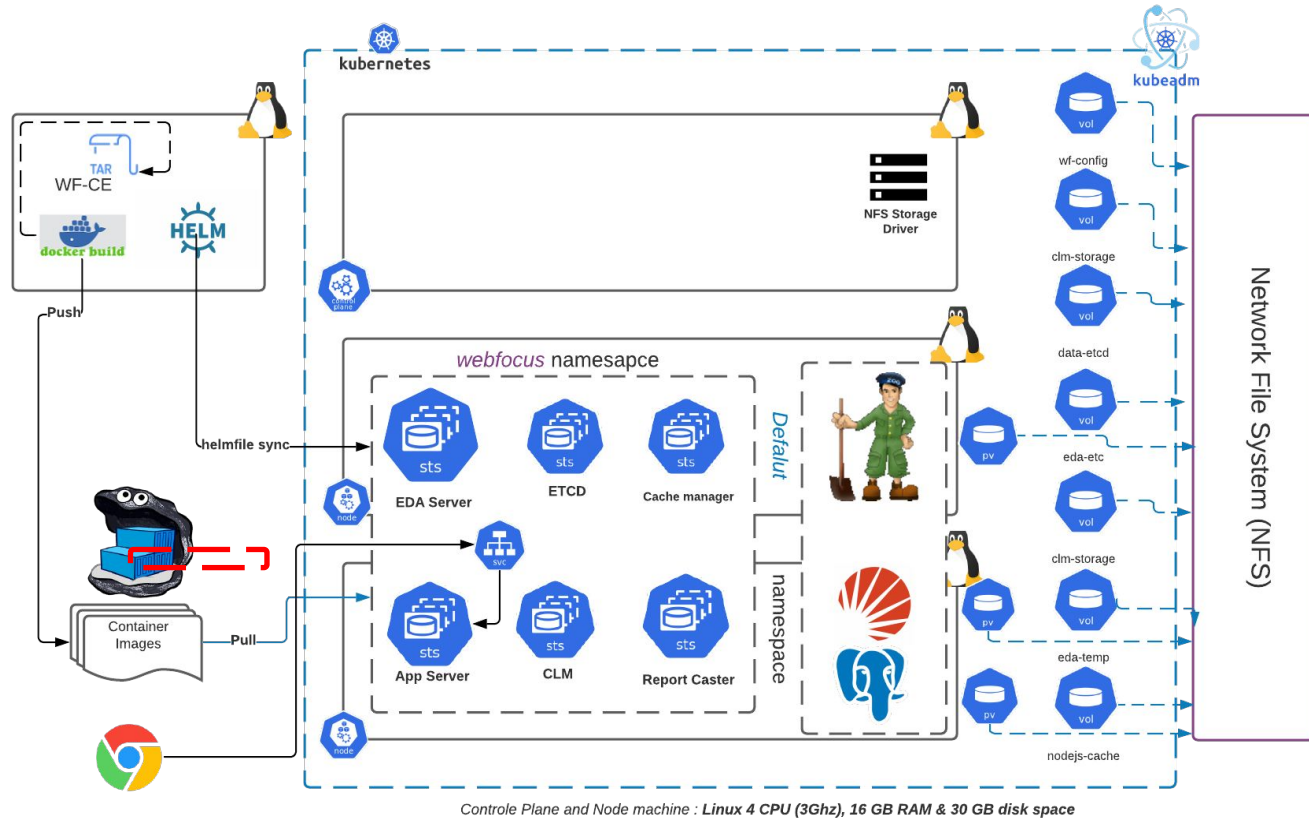


# Deploy to remote kubernetes cluster



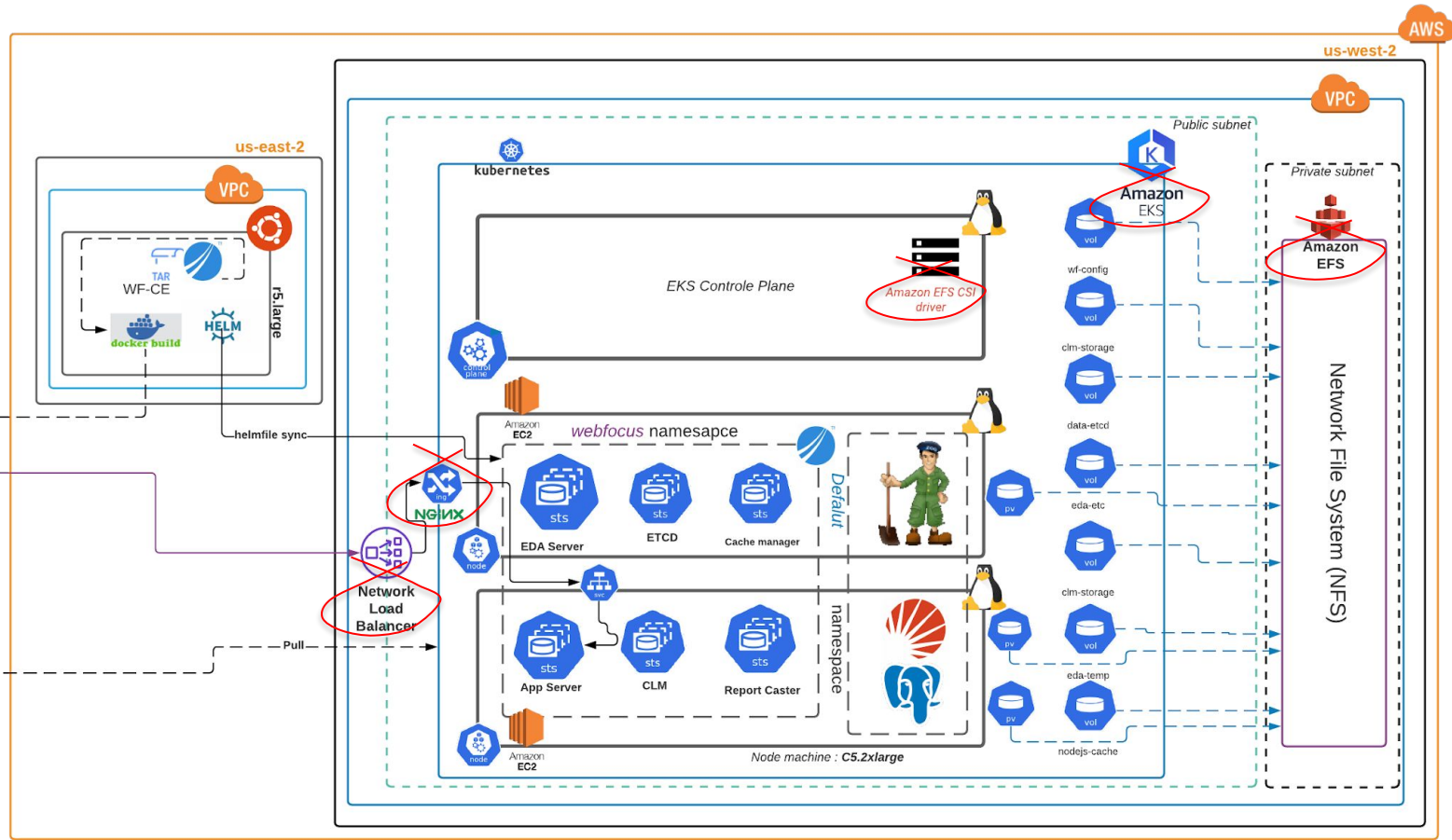
Control Plane and Node machine : Linux 4 CPU (3Ghz), 16 GB RAM & 30 GB disk space

# Deploy to remote kubernetes cluster



# Deploying in the Cloud

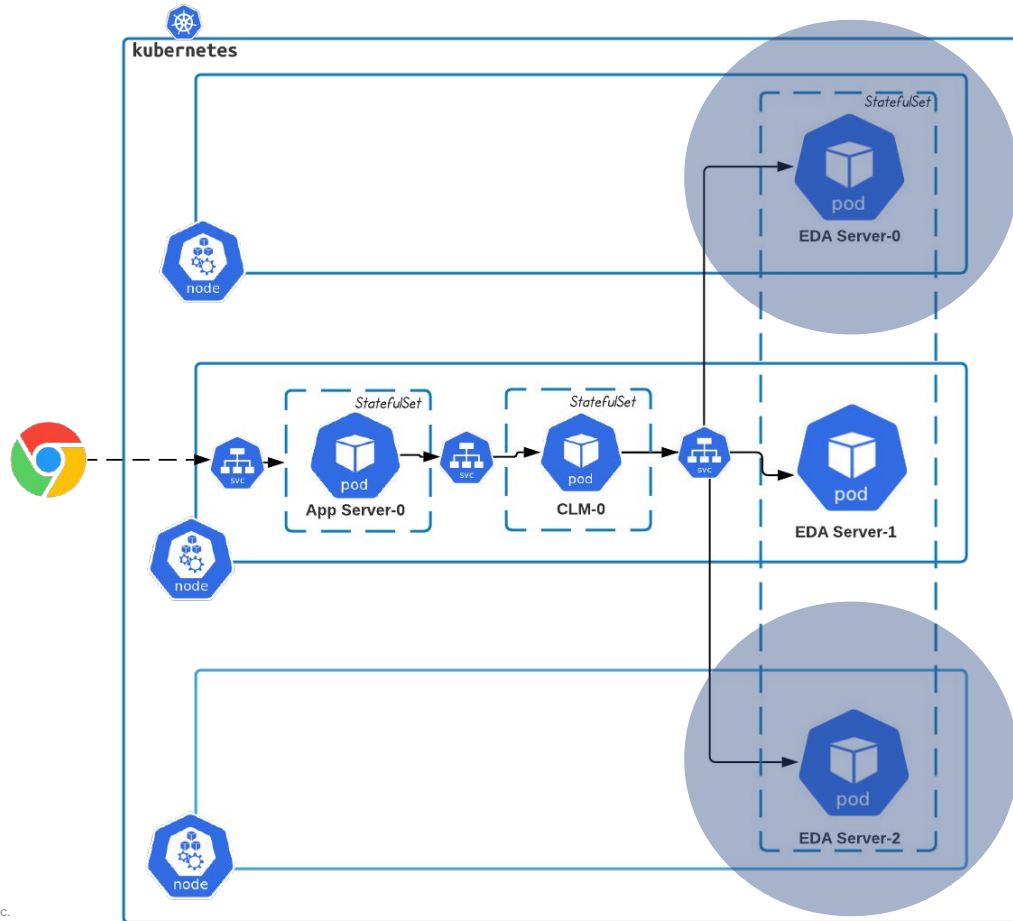
# Deploy to EKS kubernetes cluster



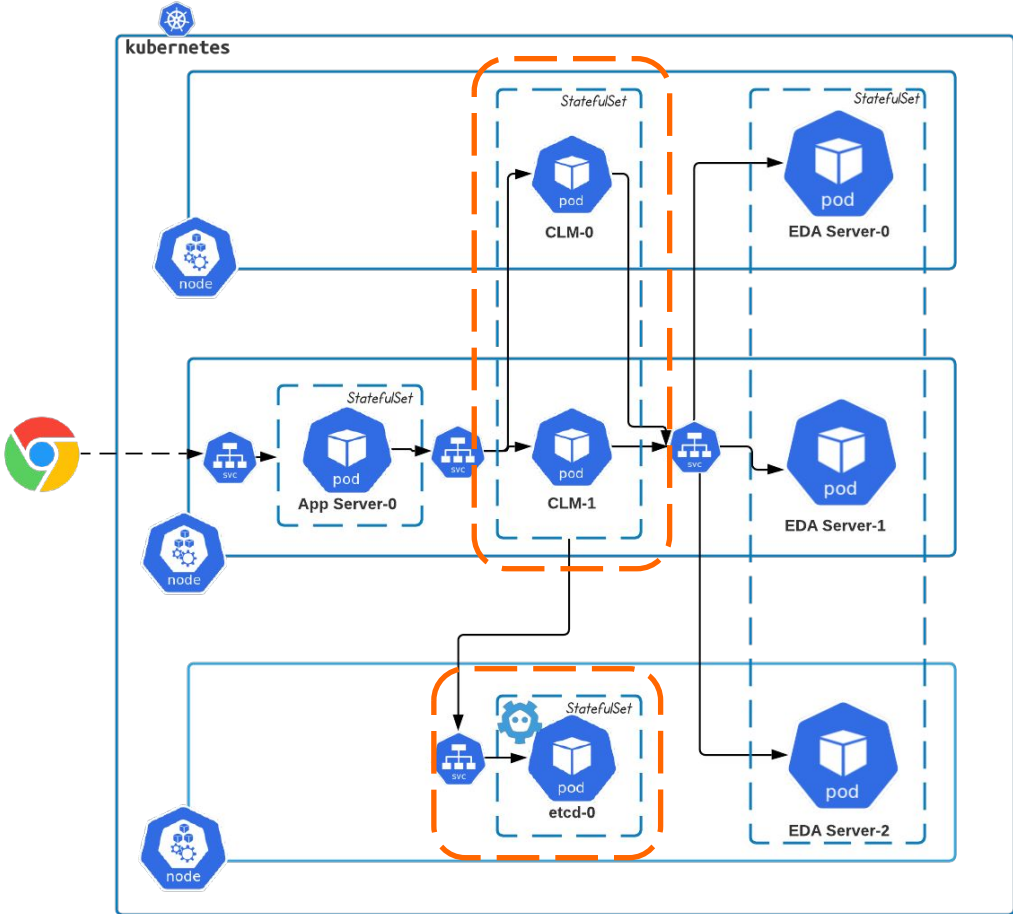
# Scaling for Capacity

# Scaling WebFOCUS components

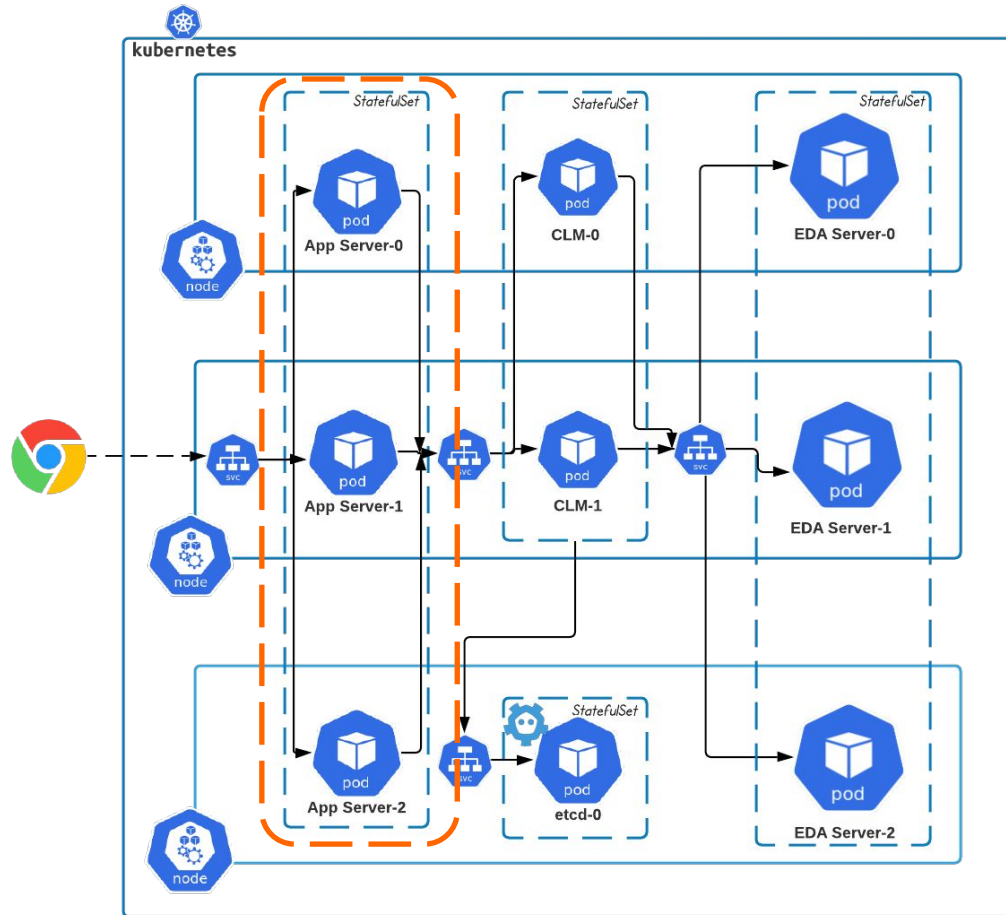
kubectl **scale** -n webfocus statefulset edaserver --replicas=3



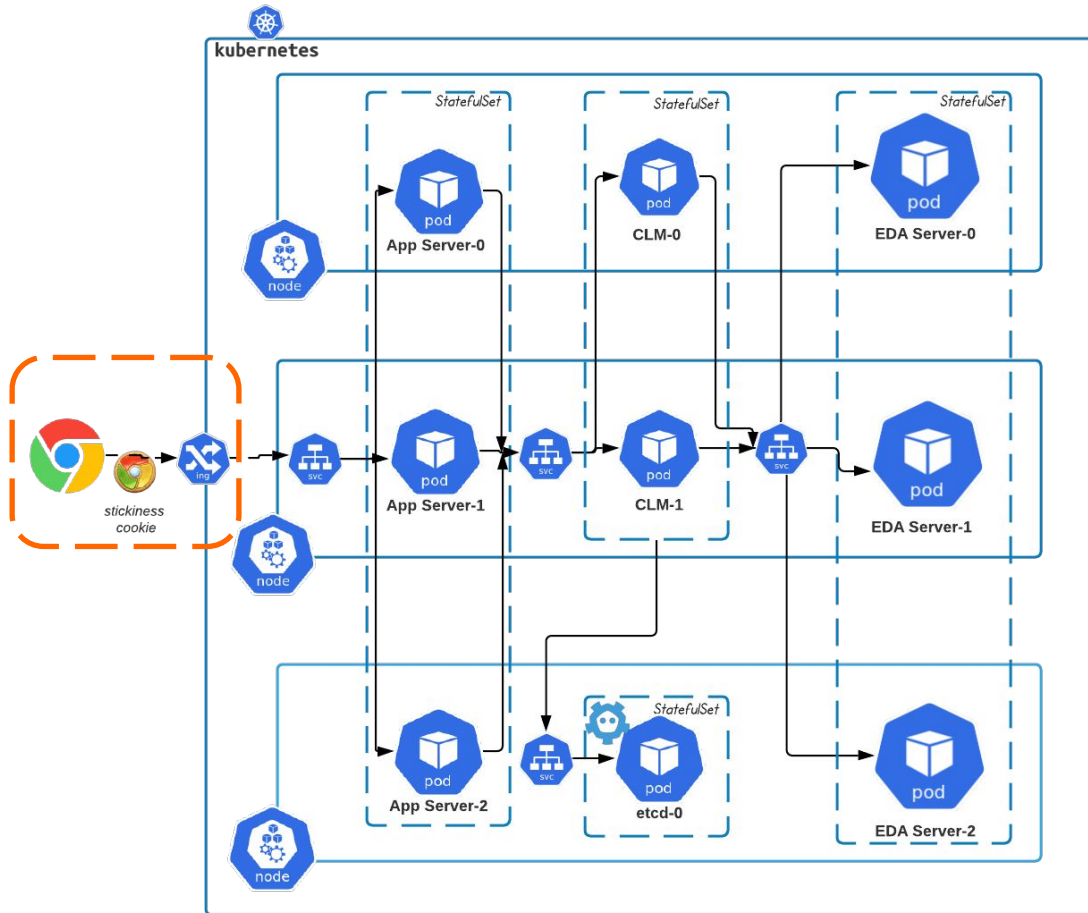
# Scaling WebFOCUS components



# Scaling WebFOCUS components



# Scaling WebFOCUS components



# Quick Peek Inside the WebFOCUS CE *Tar* File

# Inside the tar file

```
ubuntu@ip-172-31-45-198:~/webfocus-ca$ tree -c 4
├── readme.md
├── scripts
│   ├── build-images.sh
│   └── charts
│       ├── appserver
│       │   ├── Chart.yaml
│       │   ├── charts
│       │   ├── templates
│       │   └── values.yaml
│       ├── cachemanager
│       │   ├── Chart.yaml
│       │   ├── templates
│       │   └── values.yaml
│       ├── edaserver
│       │   ├── Chart.yaml
│       │   ├── templates
│       │   └── values.yaml
│       └── swego
│           ├── Chart.yaml
│           ├── templates
│           └── values.yaml
├── helmfile
│   ├── common
│   │   ├── _lib
│   │   ├── appserver
│   │   ├── clm
│   │   ├── copy-etc
│   │   ├── create-pv
│   │   ├── edaserver
│   │   └── init-tenant
│   ├── environments
│   │   ├── dev-local-intg.yaml.gotmpl
│   │   └── helmfile.yaml
│   ├── local-infra
│   │   ├── charts
│   │   ├── helmfile-infra.yaml
│   │   └── helmfile.yaml
├── version.properties
├── wfc
│   ├── Dockerfile
│   ├── files
│   │   ├── collections.xmltemplate
│   │   ├── deploy-and-run.sh
│   │   ├── endpoint.sh
│   │   ├── jetty-logging.xml
│   │   └── languages.xml
│   ├── package.data
│   └── pkg_src.tar
└── wfs
    ├── iserver
    │   ├── Dockerfile
    │   ├── files
    │   │   ├── endpoint.sh
    │   │   ├── iserver.tar
    │   │   ├── iserver_etc
    │   │   ├── Dockerfile
    │   │   └── iserver_etc.tar
    └── version.cfg
```

Builds WebFOCUS Client, Server & wfs-etc images

```
├── version.properties
├── wfc
│   ├── Dockerfile
│   ├── files
│   │   ├── collections.xmltemplate
│   │   ├── deploy-and-run.sh
│   │   ├── endpoint.sh
│   │   ├── jetty-logging.xml
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    │   │   ├── endpoint.sh
    │   │   ├── iserver.tar
    │   │   ├── iserver_etc
    │   │   ├── Dockerfile
    │   │   └── iserver_etc.tar
    └── version.cfg

29 directories, 29 files
ubuntu@ip-172-31-45-198:~/webfocus-ca$ cat wfs/version.cfg
gen_num = 2139
inrl = 8728
inrl_extended = 8207_28
release = R7287280
source_date = 07/15/2021 13:34:17
gen_build_date = 07/15/2021 14:37:14
gen_build_date_utc = 07/15/2021 18:37:14
buildsys = Linux Kernel-3.10.0-glibc-2.17 x86_64 64bit
supportsys = Linux Kernel-3.10.0-glibc-2.17 and up x86_64 64bit
dlExtension = so
c_compiler = g++
c_version = gcc version 4.8.5 20150623 (Red Hat 4.8.5-28) (GCC)
var_c_flags_rlx = -DRIX_LINUX -DRIX_LINUX -DRIX_LINUXR7 -DRIX_64 -DRIX_X86_64 -DRIX_SVR4
var_c_flags_optimization_nodbug = -O -muntinitialized
var_c_flags_code_generation = -std=c++11
var_c_flags_errors = -ffloat-store -Wno-write-strings -Wformat -Wimplicit -Wuninitialized -Werror-narrowing -Wvla -Werror-uninitialized -Werror-wla -Werror-format
jni_version = 1.8.0_45-b14
media_type = 309508308851C9C2
wfsjar_repository = webfocus-product
wfsjar_rel = 8207_28
wfsjar_seq_num = 13
media_build_date = 07/15/2021 14:35:41
ubuntu@ip-172-31-45-198:~/webfocus-ca$ cat wfc/package.data
PACK_ID=wf072021a
PACK_DATE=072021
PACK_TIME=013238
PACK_PLATFORM=unix
PACK_NODE=wfbuild
REL=0207
PACK_LYCS=/bigscm/admin/pkg1/8207/wf072021a
PACK_INSTALL=yes
JAVA_CDBASE=src
JAVA_DATE=20210719-231602
JAVA_TRACK=branch0207
JAVA_NUM=16
ubuntu@ip-172-31-45-198:~/webfocus-ca$
```





