

Docker DevOps

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Procedures for pulling/creating/updating/pushing Docker images.

[Docker Image Build Guidelines](#)

Questions

What is the difference between the 10001 and 10003 port versions for nexus3?

Which version of the maven plugin? <https://gerrit.onap.org/r/#/c/8509/>

[Docker Image Build Guidelines](#)

Docker Run

Docker Pull

Check your login first

```
$docker login -u docker -p docker nexus3.onap.org:10001
```

Login Succeeded

Docker Exec

```
root@vm1-aai-inst1:~# docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
a0b610740d689502->9502/tcp	nexus3.onap.org:10001/openecomp/data-router	testconfig_datarouter_1	15 hours ago	Up 15 hours	0.0.0.0:	
90b36b769927 hours	nexus3.onap.org:10001/openecomp/search-data-service	testconfig_aai.searchservice.simplifiedemo.openecomp.org_1	15 hours ago	Up 15		
b347cb91e6c2 hours	nexus3.onap.org:10001/openecomp/model-loader	testconfig_model-loader_1	15 hours ago	Up 15		
0dca1d420750 /tcp	aaionap/haproxy	testconfig_aai.api.simplifiedemo.openecomp.org_1	15 hours ago	Up 15 hours	0.0.0.0:8443->8443	
cf82f991a05b>8446/tcp	nexus3.onap.org:10001/openecomp/aai-traversal	testconfig_aai-traversal.api.simplifiedemo.openecomp.org_1	15 hours ago	Up 15 hours	0.0.0.0:8446-	
b3284622c0aa8447->8447/tcp	nexus3.onap.org:10001/openecomp/aai-resources	testconfig_aai-resources.api.simplifiedemo.openecomp.org_1	15 hours ago	Up 15 hours	0.0.0.0:	
245da2cf6bb80.0.0.0:9517->9517/tcp	nexus3.onap.org:10001/openecomp/sparkly-be	testconfig_sparkly-be_1	15 hours ago	Up 15 hours	8000/tcp,	
ca140c25bb91 /tcp	attos/dmaap	dockerfiles_dmaap_1	15 hours ago	Up 15 hours	0.0.0.0:3904-3905->3904-3905	
d3dcbe8b3dd6 /tcp	dockerfiles_kafka	dockerfiles_kafka_1	15 hours ago	Up 15 hours	0.0.0.0:9092->9092	
52f929f6aa06 /tcp, 0.0.0.0:2181->2181/tcp	wurstmeister/zookeeper	dockerfiles_zookeeper_1	15 hours ago	Up 15 hours	22/tcp, 2888/tcp, 3888	

Docker log

LOG-47 - Getting issue details...

STATUS

```
docker logs -f testconfig_aai-resources.api.simplifiedemo.openecomp.org_1
```

Docker Build

```
docker build -t nexus3.onap.org:10001/openecomp/dcae/pgaas -f Dockerfile .
```

Step 29/29 : ENTRYPOINT usr/local/bin/entrypoint.sh

---> Using cache

---> d3cf07a80918

Successfully built d3cf07a80918

Successfully tagged nexus3.onap.org:10001/openecomp/dcae/pgaas:latest

obrienbiometrics:pgaas michaelobrien\$ docker images

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
nexus3.onap.org:10001/openecomp/dcae/pgaas	latest	d3cf07a80918	9 minutes ago	1.03GB

Docker Registry Image Search

where the image name is "dcae-controller"

```
obrienbiometrics:pgaas michaelobrien$ curl -Ss -u docker:docker https://nexus3.onap.org:10001/v2/dcae-controller/tags/list | jq
{
  "name": "dcae-controller",
  "tags": [
    "0.1.0-SNAPSHOT",
    "1.0.0"
  ]
}
```

Docker Push

Dockerhub

```
root@obriensystemskub0:~/oom/kubernetes/dcae/pgaas# export DOCKER_ID_USER="obrienlabs"
root@obriensystemskub0:~/oom/kubernetes/dcae/pgaas# docker login
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to
https://hub.docker.com to create one.
Username: obrienlabs
Password:
Login Succeeded
root@obriensystemskub0:~/oom/kubernetes/dcae/pgaas# docker build -t obrienlabs/pgaas -f Dockerfile .
Sending build context to Docker daemon 23.55 kB
Step 1 : FROM ubuntu:16.04
--> d355ed3537e9
....
Successfully built 257430a38254
root@obriensystemskub0:~/oom/kubernetes/dcae/pgaas# docker tag obrienlabs/pgaas obrienlabs/pgaas:1
root@obriensystemskub0:~/oom/kubernetes/dcae/pgaas# docker push obrienlabs/pgaas:1
The push refers to a repository [docker.io/obrienlabs/pgaas]
ee716c896001: Pushed
....5a4c2c9a24fc: Pushed
cb11ba605400: Pushed
1: digest: sha256:fb09855b323fe83aaa161725910cd2f6d7ff6306035e6f5f2df40b99149e8fed size: 6157

pull on separate machine
obrienbiometrics:oom michaelobrien$ docker pull obrienlabs/pgaas:1
1: Pulling from obrienlabs/pgaas
23a6960fe4a9: Extracting [==>] 3.441MB/45.89MB
e9e104b0e69d: Download complete
cd33d2ea7970: Download complete
534ff7b7d120: Download complete
```

Docker save/load

TODO: document - use case for a bulk preload pull of docker images to pass to machines that are behind a firewall where the 10001 port of nexus3.onap.org is inaccessible

Thanks [Mohsen Ansari](#)

Docker cleanup

Stop all containers

```
docker stop $(docker ps -a -q)
```

Remove all containers

```
docker rm $(docker ps -a -f status=exited -q)
```

Remove all images

```
docker rmi $(docker images -a -q) --force
```

Remove all volumes

```
docker volume rm $(docker volume ls)
```

ONAP nexus3

We cannot push directly to nexus3 - we need to do a staged release -

CIMAN-22 - Getting issue details... STATUS

Not currently working

```
obrienbiometrics:pgaas michaelobrien$ docker push nexus3.onap.org:10001/openecomp/dcae/pgaas
The push refers to a repository [nexus3.onap.org:10001/openecomp/dcae/pgaas]
b4f440dc89cd: Preparing
b1a91ac0378f: Preparing
a6ab361d9284: Preparing
01d34e08a9e0: Preparing
67166bc93a3a: Preparing
f0cc66c45ab4: Waiting
d09c777e7ae4: Waiting
e30c66e473f0: Waiting
01b1f5510a52: Waiting
94f82c263b44: Waiting
a1df65c04630: Waiting
3c8596501eba: Waiting
17ba7123d342: Waiting
1fcfa71c715c: Waiting
7ed908687894: Waiting
764d7670ed3c: Waiting
28868d65df7c: Waiting
a55b0c3f0a89: Waiting
372ceae4f0a6: Waiting
63a268fe22b1: Waiting
28312f9d3023: Waiting
ef1d2d917acc: Waiting
a09947e71dc0: Waiting
9c42c2077cde: Waiting
625c7a2a783b: Waiting
25e0901a71b8: Waiting
8aa4fcad5eeb: Waiting
error parsing HTTP 404 response body: invalid character '<' looking for beginning of value: "\n<!DOCTYPE
html>\n<html>\n<head>\n  <title>404 - Nexus Repository Manager</title>\n  <meta http-equiv=\"Content-Type\"
content=\"text/html; charset=UTF-8\"/>\n\n\n  <!--[if lt IE 9]>\n    <script>(new Image).src=\"https://nexus3.
onap.org/favicon.ico?3.2.0-01\"/>\n  <![endif]-->\n  <link rel=\"icon\" type=\"image/png\" href=\"
https://nexus3.onap.org/favicon-32x32.png?3.2.0-01\" sizes=\"32x32\"/>\n  <link rel=\"mask-icon\" href=\"
https://nexus3.onap.org/safari-pinned-tab.svg?3.2.0-01\" color=\"#5bbad5\"/>\n  <link rel=\"icon\" type=\"image
/png\" href=\"https://nexus3.onap.org/favicon-16x16.png?3.2.0-01\" sizes=\"16x16\"/>\n  <link rel=\"shortcut
icon\" href=\"https://nexus3.onap.org/favicon.ico?3.2.0-01\"/>\n  <meta name=\"msapplication-TileImage\"
content=\"https://nexus3.onap.org/mstile-144x144.png?3.2.0-01\"/>\n  <meta name=\"msapplication-TileColor\"
content=\"#00a300\"/>\n\n  <link rel=\"stylesheet\" type=\"text/css\" href=\"https://nexus3.onap.org/static/css
/nexus-content.css?3.2.0-01\"/>\n</head>\n<body>\n<div class=\"nexus-header\">\n  <a href=\"https://nexus3.
onap.org\">\n    <div class=\"product-logo\">\n      <img src=\"https://nexus3.onap.org/static/images/nexus.
png?3.2.0-01\"/>\n    </div>\n    <div class=\"product-id\">\n      <div class=\"product-id_line-1\"
>\n        <span class=\"product-name\">Nexus Repository Manager</span>\n      </div>\n      <div class=\"
product-id_line-2\">\n        <span class=\"product-spec\">3.2.0-01</span>\n      </div>\n    </div>\n  <
/a>\n</div>\n\n<div class=\"nexus-body\">\n  <div class=\"content-header\">\n    <img src=\"https://nexus3.
onap.org/static/rapture/resources/icons/x32/exclamation.png?3.2.0-01\"/>\n    <span class=\"title\">Error 404<
/span>\n    <span class=\"description\">Not Found</span>\n  </div>\n  <div class=\"content-body\">\n    <div
class=\"content-section\">\n      Not Found\n    </div>\n  </div>\n</body>\n</html>\n\n"
```

Updating WARs/JARs

Attaching to a Debug Port

UCA-25 - Getting issue details...

STATUS

```
-Xrunjdpw:transport=dt_socket,server=y,suspend=y,address=5432
```

List Docker Mounts

Example retrieving docker mounts for the CDAP Collector VM

```
root@zldciad4vicoll00:~# df

Filesystem      1K-blocks    Used Available Use% Mounted on
none            41251136 5354876   34097432  14% /opt/app/docker/data/aufs/mnt
/14a5fd911ae442f1041a51f05d760dcd75969f455e6e6471e5f62eb102e400ff

shm             65536         0     65536    0% /opt/app/docker/data/containers
/98bdea201c182d68f95e814a0f9b8667e3cd38e6017fb632368b995920bda825/shm

none            41251136 5354876   34097432  14% /opt/app/docker/data/aufs/mnt
/86e5d7ccec8b8cb80d934baa0259c1aa582526495fb4fa004afe6f49e0cde3ec

shm             65536         0     65536    0% /opt/app/docker/data/containers
/c12cf4f98007316e0ed9f11bf70ebf2db8969e1a2426a65144f023d7db477131/shm

none            41251136 5354876   34097432  14% /opt/app/docker/data/aufs/mnt
/03e8aaf09316cda6a17063b6ae6d0ecfc0e6c1420a804f627d895f1b3305b803

shm             65536         0     65536    0% /opt/app/docker/data/containers
/5d5fb7726fb34150b5a188570bcb10359e254d68161f7b545936e5ed8980e047/shm

none            41251136 5354876   34097432  14% /opt/app/docker/data/aufs/mnt
/4bd2a7e73e86618a5c547d33758a9d7c9e402b4db108b823614a0319b320e62b

shm             65536         0     65536    0% /opt/app/docker/data/containers
/53bba60de57d924780913f75e4ca815c83a7c7e51e890b661df3f70b818d283d/shm

none            41251136 5354876   34097432  14% /opt/app/docker/data/aufs/mnt
/e01ab748cc467704e874f7240b72bfc26e85e10897fae565028bb66189e31683

shm             65536         0     65536    0% /opt/app/docker/data/containers
/72956fb48e80ad39c56d30e181e22e42865723f265eefd1975d31cb182bef416/shm

root@zldciad4vicoll00:~# docker ps

CONTAINER ID      IMAGE
COMMAND          CREATED          STATUS
PORTS            NAMES

72956fb48e80      nexus3.onap.org:10001/openecomp/dcae-collector-common-event:1.0-STAGING-latest  "/opt/app
/manager/..."  20 hours ago    Up 20 hours    0.0.0.0:8080->8080/tcp, 0.0.0.0:8443->8443/tcp, 0.0.0.0:
32768->9999/tcp   dcae_docker-common-event_iad4
```

```

53bba60de57d      nexus3.onap.org:10001/openecomp/dcae-dmaapbc:1.0-STAGING-latest      "/bin
/dmaapbc deploy"  20 hours ago      Up 20 hours      0.0.0.0:18080->8080/tcp, 0.0.0.0:18443->8443
/tcp              dcae_docker-databus-controller_iad4

5d5fb7726fb3      attos/dmaap      "/bin/sh -
c ./star..."    21 hours ago      Up 21 hours      0.0.0.0:3904-3905->3904-3905
/tcp              dockerfiles_dmaap_1

c12cf4f98007      wurstmeister/zookeeper      "/bin/sh -
c '/usr/...'     21 hours ago      Up 21 hours      22/tcp, 2888/tcp, 3888/tcp, 0.0.0.0:2181->2181
/tcp              dockerfiles_zookeeper_1

98bdea201c18      dockerfiles_kafka      "start-
kafka.sh"        21 hours ago      Up 21 hours      0.0.0.0:9092->9092
/tcp              dockerfiles_kafka_1

root@zldciad4vicoll00:~# docker inspect -f '{{ .Mounts }}' 98bdea201c18

[{{bind /opt/app/message-router/docker_files/start-kafka.sh /start-kafka.sh rw true }} {{bind /var/run/docker.
sock /var/run/docker.sock rw true }} {{bind /opt/app/message-router/docker_files/data-kafka /kafka rw true }}]

root@zldciad4vicoll00:~# docker inspect -f '{{ .Mounts }}' c12cf4f98007

[{{bind /opt/app/message-router/docker_files/data-zookeeper /opt/zookeeper-3.4.9/data rw true }} {{volume
786f3819c8cfee7ff5a2d22fc644563d78b550fb05977573ea663550f2356f43 /opt/app/docker/data/volumes
/786f3819c8cfee7ff5a2d22fc644563d78b550fb05977573ea663550f2356f43/_data /opt/zookeeper-3.4.9/conf local true }}]

root@zldciad4vicoll00:~# docker inspect -f '{{ .Mounts }}' 5d5fb7726fb3

[{{bind /opt/app/message-router/docker_files/MsgRtrApi.properties /appl/dmaapMR1/bundleconfig/etc/appprops
/MsgRtrApi.properties rw true }} {{bind /opt/app/message-router/docker_files/mykey /appl/dmaapMR1/etc/keyfile
rw true }} {{bind /opt/app/message-router/docker_files/cadi.properties /appl/dmaapMR1/etc/cadi.properties rw
true }}]

root@zldciad4vicoll00:~# docker inspect -f '{{ .Mounts }}' 53bba60de57d

[{{volume 6f8c7044b305bf02c8d0cdf7656e0d1bd446ef0799c825387ee2a7ec0b322c35 /opt/app/docker/data/volumes
/6f8c7044b305bf02c8d0cdf7656e0d1bd446ef0799c825387ee2a7ec0b322c35/_data /opt/app/dmaapbc/log local true }}
{{bind /var/log/DCAE/docker-databus-controller/iad4/manager /opt/app/logs true }} {{bind /var/config/DCAE
/docker-databus-controller/iad4/manager /opt/app/config true }} {{bind /opt/app/dcae-certificate /opt/app/dcae-
certificate true }} {{bind /opt/app/groovy /opt/app/groovy true }} {{bind /etc/hosts /opt/app/etc/hosts
true }}]

root@zldciad4vicoll00:~# docker inspect -f '{{ .Mounts }}' 72956fb48e80

[{{bind /var/log/DCAE/docker-common-event/iad4/app /opt/app/SEC/logs true }} {{bind /var/log/DCAE/docker-
common-event/iad4/manager /opt/app/manager/logs true }} {{bind /var/config/DCAE/docker-common-event/iad4
/manager /opt/app/manager/config true }} {{bind /opt/app/dcae-certificate /opt/app/dcae-certificate true }}
{{bind /opt/app/groovy /opt/app/groovy true }}]

```

Docker fails to start on OSX

<https://github.com/docker/for-mac/issues/989>

reset to defaults

Links

View docker images (don't sign in)

<https://nexus3.onap.org/#browse/browse/components:docker.public>

<https://github.com/moby/moby/issues/22910>

SDC-277 - Getting issue details...

STATUS

