

CA Service Virtualization on Docker

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CA Service Virtualization on Docker Agenda

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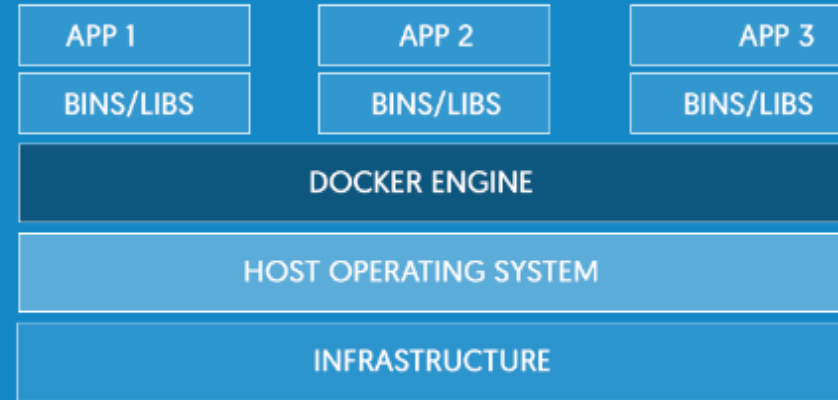
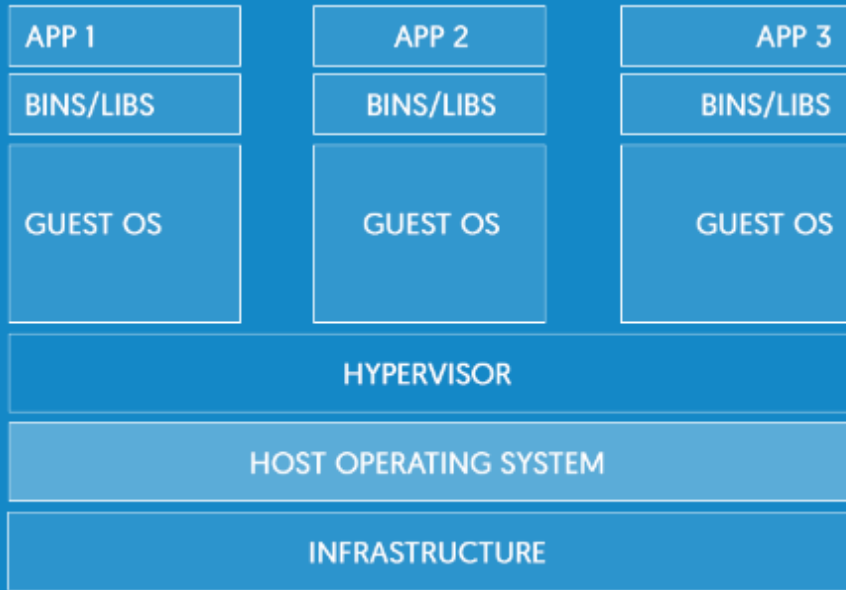
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DEMO

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Q&A

What is Docker?



- Open Standards
- Lightweight
- Secured
- Quickly Scale

Why CA Service virtualization support for Docker?

- CI/CD – create/test Virtual Services
- Performance Testing
- All containers on a single box or individual containers on separate boxes
- Deploy containers –
 - on prem
 - In the cloud
 - On Hybrid

Prerequisites For Docker Support

- Full version of Linux that supports Docker features
- Docker already installed
- DevTest Linux installer (8.3 and above)
- Understanding of Linux
- Understanding of Docker!

Docker Images

- Docker subfolder under DevTest_Home folder
- Run ***gradlew build*** command to build all images

```
~# docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
dradis-licensed	latest	4448df81879a	2 weeks ago	664.7 MB
devtest/portal-base	9.5.1.6	8056c220ba2c	5 weeks ago	1.082 GB
devtest/portal-base	latest	8056c220ba2c	5 weeks ago	1.082 GB
devtest/dradis-base	9.5.1.6	2a47c5d3799a	5 weeks ago	664.7 MB
devtest/dradis-base	latest	2a47c5d3799a	5 weeks ago	664.7 MB
devtest/devtest-base	9.5.1.6	24dceb5a41e8	5 weeks ago	1.575 GB
devtest/devtest-base	latest	24dceb5a41e8	5 weeks ago	1.575 GB
devtest/registry-broker-base	9.5.1.6	ad3a76e75b73	5 weeks ago	1.245 GB
devtest/registry-broker-base	latest	ad3a76e75b73	5 weeks ago	1.245 GB
devtest/servers-base	9.5.1.6	0ff6e83b3ba0	5 weeks ago	831.1 MB
devtest/servers-base	latest	0ff6e83b3ba0	5 weeks ago	831.1 MB
devtest/demoserver	9.5.1.6	591f37132fd4	5 weeks ago	383.7 MB
devtest/demoserver	latest	591f37132fd4	5 weeks ago	383.7 MB
devtest/core-libs	9.5.1.6	fa931ffd7439	5 weeks ago	656.5 MB
devtest/core-libs	latest	fa931ffd7439	5 weeks ago	656.5 MB
devtest/shared-libs	9.5.1.6	1ac0e963c717	5 weeks ago	615.5 MB
devtest/shared-libs	latest	1ac0e963c717	5 weeks ago	615.5 MB
devtest/devtest-jre	9.5.1.6	82fb8b8182a3	5 weeks ago	360.3 MB
devtest/devtest-jre	latest	82fb8b8182a3	5 weeks ago	360.3 MB
ubuntu	latest	45bc58500fa3	6 weeks ago	126.9 MB

Docker Images

- Examples/dradis-licensed folder has prebuilt image 'dradis-licensed' (for Enterprise Dashboard)
- Copy your license file to that folder

```
[root@warko0111915 dradis-licensed]# cp ../../../../devtestlic.xml .  
[root@warko0111915 dradis-licensed]# cat README.md
```

- Build this image which applies the license file and creates a new layer

```
[root@warko0111915 dradis-licensed]# docker build -t dradis-licensed:latest .  
Sending build context to Docker daemon 5.632 kB  
Step 0 : FROM devtest/dradis-base  
----> f4a36e951e6b  
Step 1 : ADD devtestlic.xml /opt/devtest/devtestlic.xml  
----> 5eec1656299a  
Removing intermediate container 9a8a2900d0ba  
Successfully built 5eec1656299a  
[root@warko0111915 dradis-licensed]#
```

Start And Run Docker Containers

■ Start Enterprise Dashboard

```
~# docker ps -a
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS              NAMES
d899a23049ac       dradis-licensed:latest  "/opt/devtest/bin/Ent"  15 seconds ago     Up 13 seconds      0.0.0.0:1506->1506/tcp, 0.0.0.0:2003->2003/tcp  dashboard
~#
```

■ Start Registry

```
~# docker run -d --name registry -p 2010:2010 -p 1505:1505 -p 1528:1528 -e LISA_MORE_VM_PROPS="-Ddevtest.enterprisedashboard.host=warko01n30180" devtest/registry-broker-base /opt/devtest/bin/Registry -n tcp://warko01n30180:2010/Registry
c7038aa10b527a1e1083b09b49d2e34061c06adb72280313457096511a0c0864
~#
```

■ Start Simulator

```
~# docker run -d --name simulator -p 2014:2014 devtest/servers-base /opt/devtest/bin/Simulator -n tcp://warko01n30180:2014/Simulator -m tcp://warko01n30180:2010/Registry
0f329a040e929430a87736749746bd1c14897538b590637dea6675f025bdf317
~#
```

■ Start Coordinator

```
~# docker run -d --name coordinator -p 2011:2011 devtest/servers-base /opt/devtest/bin/CoordinatorServer -n tcp://warko01n30180:2011/Coordinator -m tcp://warko01n30180:2010/Registry
aa53eccd4dcafd2727902079505a6e7e9a1ec0770dbd114c94370845d1602830
~#
```


Start And Run Docker Containers

■ Start Portal

```
~# docker run -d --name portal -p 1507:1507 devtest/portal-base /opt/devtest/bin/Portal -J-Dregistry.host="warko01n30180" -J-DlisaAutoConnect="tcp://warko01n30180:2010/Registry"
76e49bde3d3b2062d0e889fba8eb614fd55cf716515b1e5a5755156c876b5327
~#
```

■ Start VSE

```
~# docker run -d --name vse -p 2013:2013 -p 7001:7001 devtest/servers-base /opt/devtest/bin/VirtualServiceEnvironment -n tcp://warko01n30180:2013/VSE -m tcp://warko01n30180:2010/Registry
0fc43abd3d9c411f25dd380c6d0a1b4805b322dce50d95188a1e66caa940a028
~#
```

■ Start Docker UI

```
~# docker run -d --name mydockerUI -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock uifd/ui-for-docker
a670057782aaef6da948d903ca8ff83e06dca27c01fb25521ccfa35a23349c30
~#
```

Start And Run Docker Containers

- All running DevTest Container & Free Docker UI container

```
~# docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
a670057782aa	uifd/ui-for-docker	"/ui-for-docker"	49 seconds ago	Up 48 seconds	0.0.0.0:9000->9000/tcp	mydockerUI
0fc43abd3d9c	devtest/servers-base	"/opt/devtest/bin/Vir"	About a minute ago	Up About a minute	0.0.0.0:2013->2013/tcp, 0.0.0.0:7001->7001/tcp	vse
76e49bde3d3b	devtest/portal-base	"/opt/devtest/bin/Por"	9 minutes ago	Up 9 minutes	0.0.0.0:1507->1507/tcp	portal
aa53eccd4dca	devtest/servers-base	"/opt/devtest/bin/Coo"	14 minutes ago	Up 14 minutes	0.0.0.0:2011->2011/tcp	coordinator
0f329a040e92	devtest/servers-base	"/opt/devtest/bin/Sim"	15 minutes ago	Up 15 minutes	0.0.0.0:2014->2014/tcp	simulator
c7038aa10b52	devtest/registry-broker-base	"/opt/devtest/bin/Reg"	19 minutes ago	Up 19 minutes	0.0.0.0:1505->1505/tcp, 0.0.0.0:1528->1528/tcp, 0.0.0.0:2010->2010/tcp	registry
d899a23049ac	dradis-licensed:latest	"/opt/devtest/bin/Ent"	22 minutes ago	Up 22 minutes	0.0.0.0:1506->1506/tcp, 0.0.0.0:2003->2003/tcp	dashboard

```
~#
```

```
~# docker ps -a
```

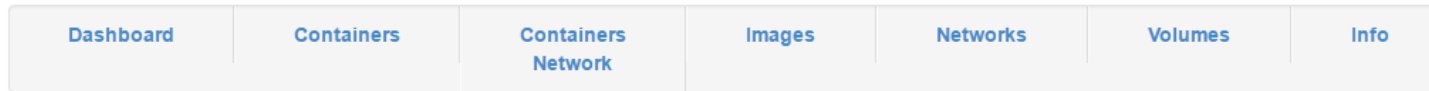
CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
a670057782aa	uifd/ui-for-docker	"/ui-for-docker"	49 seconds ago	Up 48 seconds	0.0.0.0:9000->9000/tcp	mydockerUI
0fc43abd3d9c	devtest/servers-base	"/opt/devtest/bin/Vir"	About a minute ago	Up About a minute	0.0.0.0:2013->2013/tcp, 0.0.0.0:7001->7001/tcp	vse
76e49bde3d3b	devtest/portal-base	"/opt/devtest/bin/Por"	9 minutes ago	Up 9 minutes	0.0.0.0:1507->1507/tcp	portal
aa53eccd4dca	devtest/servers-base	"/opt/devtest/bin/Coo"	14 minutes ago	Up 14 minutes	0.0.0.0:2011->2011/tcp	coordinator
0f329a040e92	devtest/servers-base	"/opt/devtest/bin/Sim"	15 minutes ago	Up 15 minutes	0.0.0.0:2014->2014/tcp	simulator
c7038aa10b52	devtest/registry-broker-base	"/opt/devtest/bin/Reg"	19 minutes ago	Up 19 minutes	0.0.0.0:1505->1505/tcp, 0.0.0.0:1528->1528/tcp, 0.0.0.0:2010->2010/tcp	registry
d899a23049ac	dradis-licensed:latest	"/opt/devtest/bin/Ent"	22 minutes ago	Up 22 minutes	0.0.0.0:1506->1506/tcp, 0.0.0.0:2003->2003/tcp	dashboard

```
~#
```

View and Manage Docker Containers

① warko01n30180:9000/#/

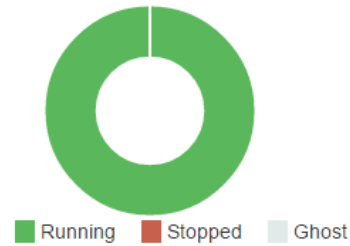
UI For Docker



Running Containers

- mydockerUI Up 11 minutes
- vse Up 12 minutes
- portal Up 20 minutes
- coordinator Up 25 minutes
- simulator Up 26 minutes
- registry Up 30 minutes
- dashboard Up 33 minutes

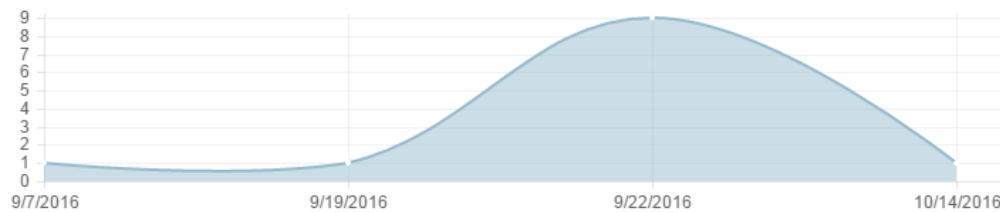
Status




Containers created





Images created




Validate DevTest, Deploy and Test Virtual Services


 Enterprise Dashboard


Product Info ▾ Support ▾ Education ▾ Communities ▾ 


Home 


Peak Counts


11/1/2016 6:56:13 PM  Last 24 Hours ▾

 0
Continuous Application
Insight Power User


 0
Service Virtualization Power
User

 0
Application Test Power User

 0
DevTest Runtime User

 0
VSE(s) in Performance Mode

[More User Info ...](#) [More VSE Info ...](#)

Registry 

All ▾

Display Name	Name	Last Update	Version	Coordinators	Simulators	VSEs	Workstations	Agents	Labs	DevTest Console URL
Registry@c7038aa10b52:2010	tcp://warko01N30180:2010/Registry	11/1/2016 6:42:42 PM	9.5.1 (9.5.1.6)	1	1	1	0	0	1	http://warko01N30180:1505/index....

Validate DevTest, *Deploy* and Test Virtual Services

The screenshot shows the DevTest Portal interface. On the left is a sidebar with navigation links: Home, Create, Manage, All Resources, API Tests, Tests, Test Suites, and Virtual Services. The main content area has tabs for Home and Virtual Services. Under the Virtual Services tab, there is a table with columns: Actions, Project, and Name. The table lists two entries for 'Cars v9': 'loan-offers' and 'cars-rest'. A context menu is open over the 'cars-rest' entry, showing 'Deploy' (highlighted with a red box) and 'Download MAR'.

Actions	Project	Name
	Cars v9	loan-offers
	Cars v9	cars-rest

Deploy
Download MAR

The screenshot shows the VSE (Virtual Service Environment) summary page. It has tabs for Home, Virtual Services, Tests, and VSE. The 'Summary' section displays a status overview for Virtual Services: 1 Total, 1 Running, 0 Offline, and 0 Fail. Below this is a toolbar with various icons. A table lists the virtual services with columns: Actions, Category, Name, Resource/Type, Status, and Txn Count. The 'cars-rest' entry is highlighted with a red box.

Summary

Virtual Services

1	1	0	0
Total	Running	Offline	Fail

Actions	Category	Name	Resource/Type	Status	Txn Count
		cars-rest	7001 : http :: /	Running	0

Validate DevTest, Deploy and *Test Virtual Services*

DevTest Portal

Home x Virtual Services x VSE x Tests x

Actions Project Name

Cars v9

Cars v9 car_demo_template

Cars v9 cars-baseline-rest-test

Run

Run with Options

Download MAR

Home x Virtual Services x VSE x Tests x Monitoring Tests x

Summary (Last 7 Days) Last Refreshed: 11/01/2016 7:24:07 PM

1	1	1	1	0	0
Passed	Failed	Aborted	Errors	Warnings	Running

Suites/Tests Filter by 'Name' Filter by 'Executed By' [x] Tests [x] Suites [x] Passed [x] Failed [x]

Name	Status	Messages	Start Time	Duration	Executed By	Coordinator Server	Description
[x] cars-baseline-rest-test	Passed		11/01/2016 7:24:54 PM	6.5s	admin	Coordinator	

Validate DevTest, Deploy and *Test Virtual Services*

Home x Virtual Services x **VSE** x Tests x Monitoring Tests x

Summary

Virtual Services

1	1	0	0
Total	Running	Offline	Fail

⏮ ⏪ ⏩ ⏭ ⏴ ⏵ ⏶ ⏷ ⏸ ⏹ ⏺ ⏻ ⏼ ⏽ ⏾ ⏿

<input type="checkbox"/>	Actions	Category ▾	Name ▾	Resource/Type ▾	Status ▾	Txn Count ▾
<input type="checkbox"/>	⋮	⚙️	cars-rest ⓘ	7001 : http :: /	Running	7

Demo

Q&A