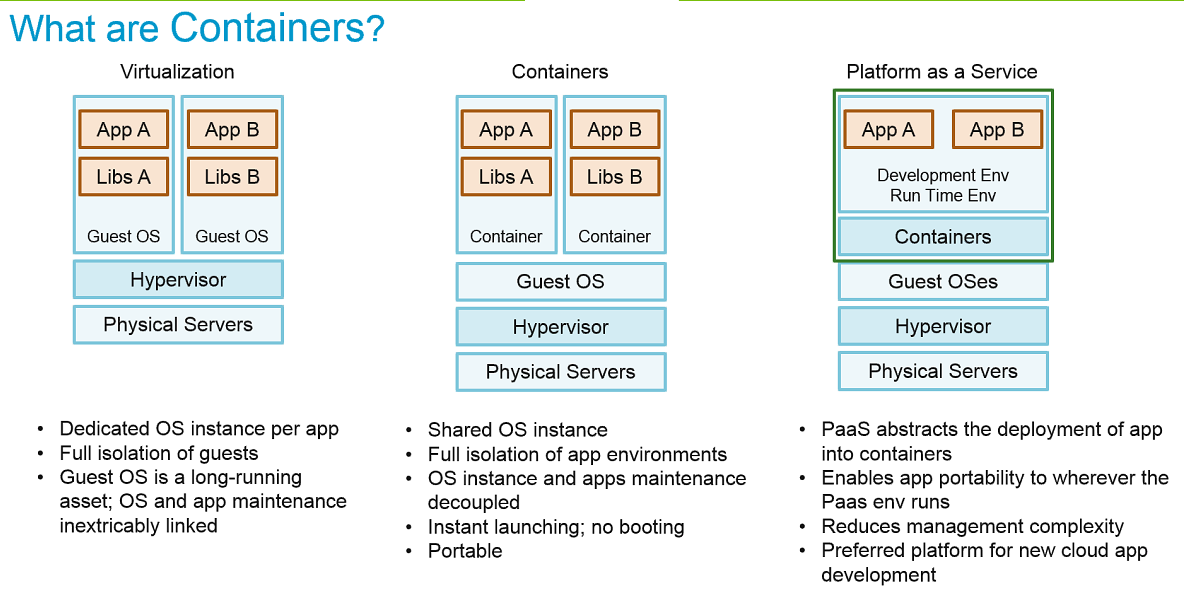
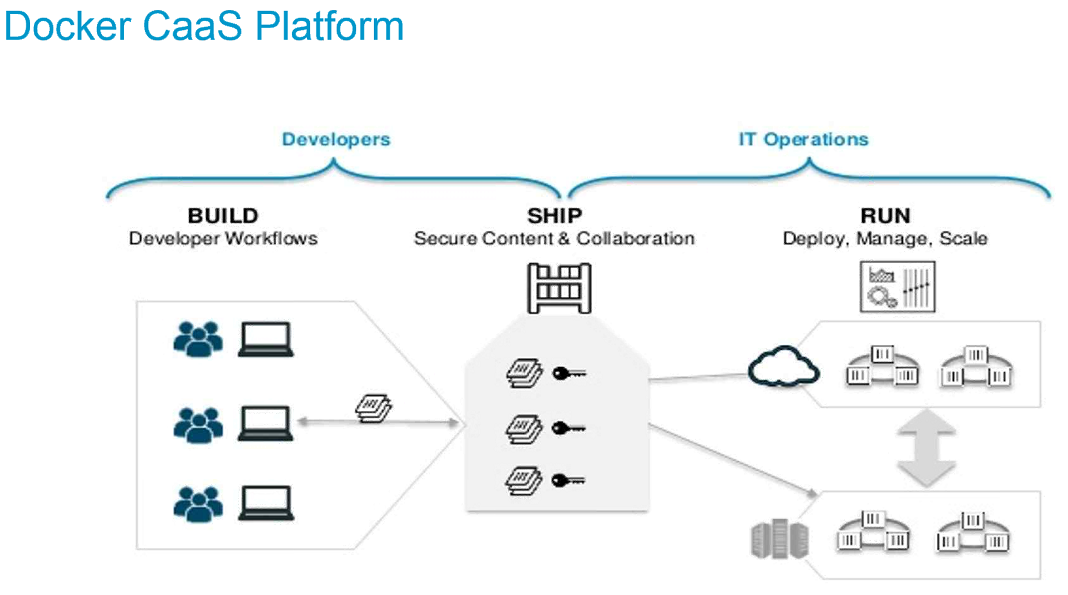
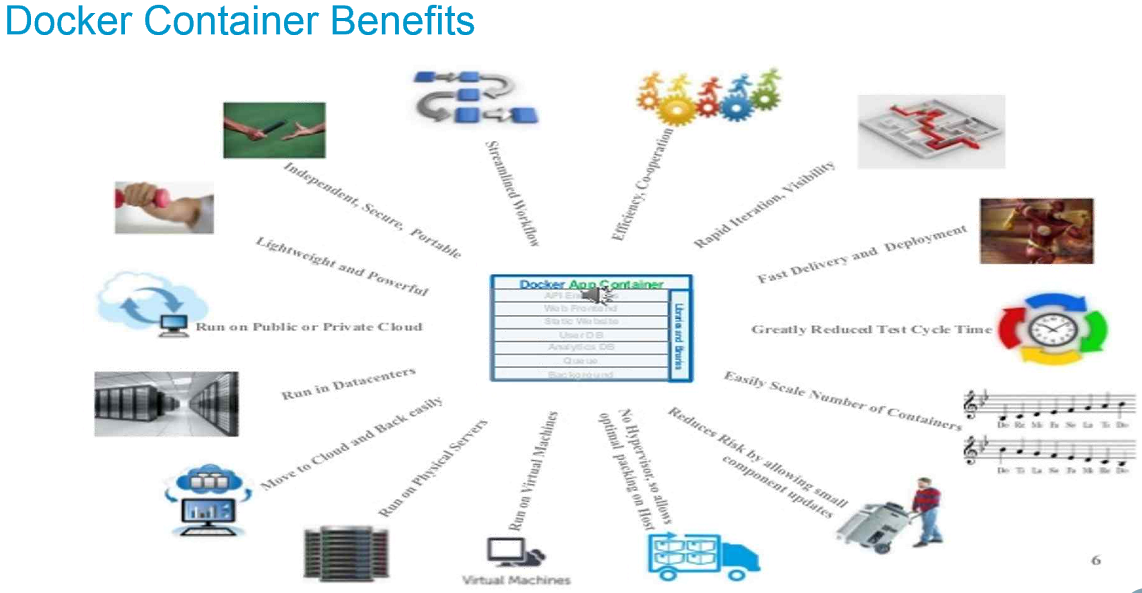
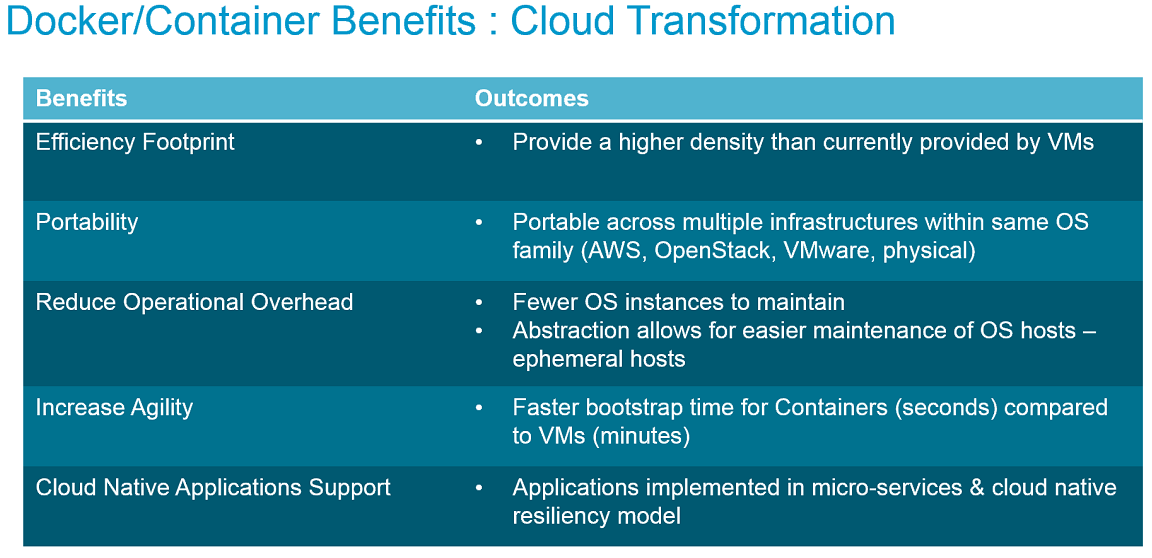
**Container as a Service (Docker)**

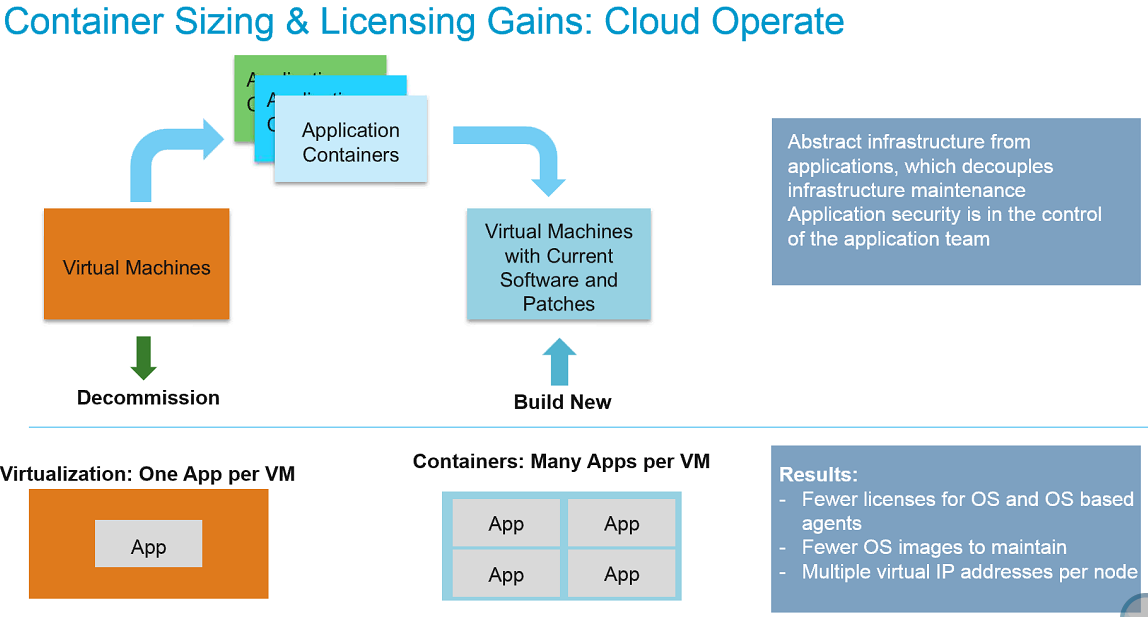
**Suresh durairajan chief arch**

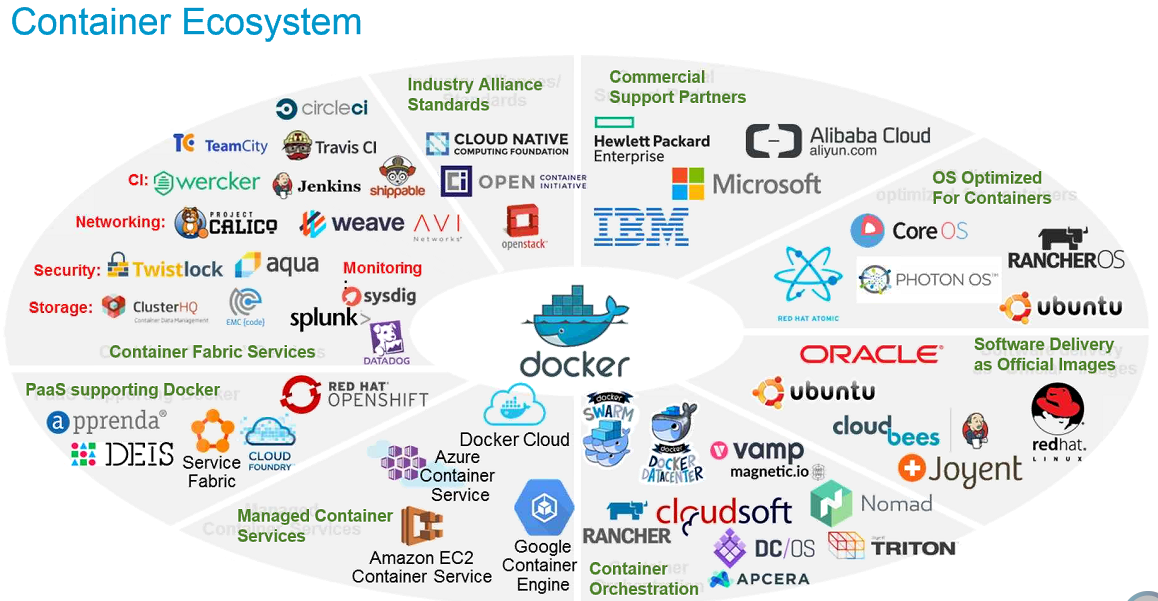


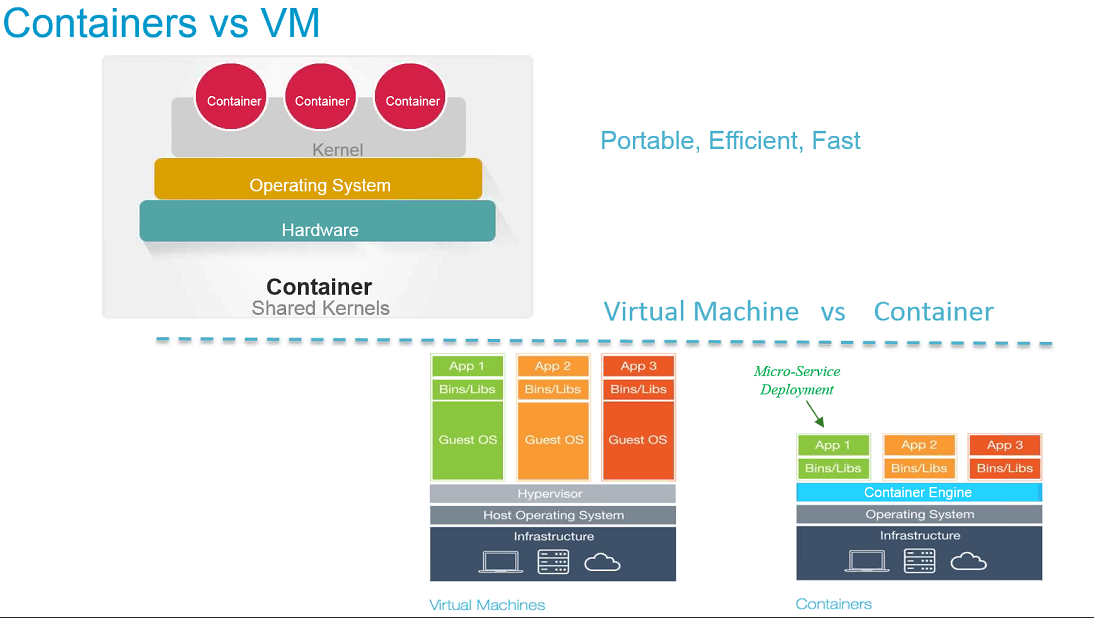


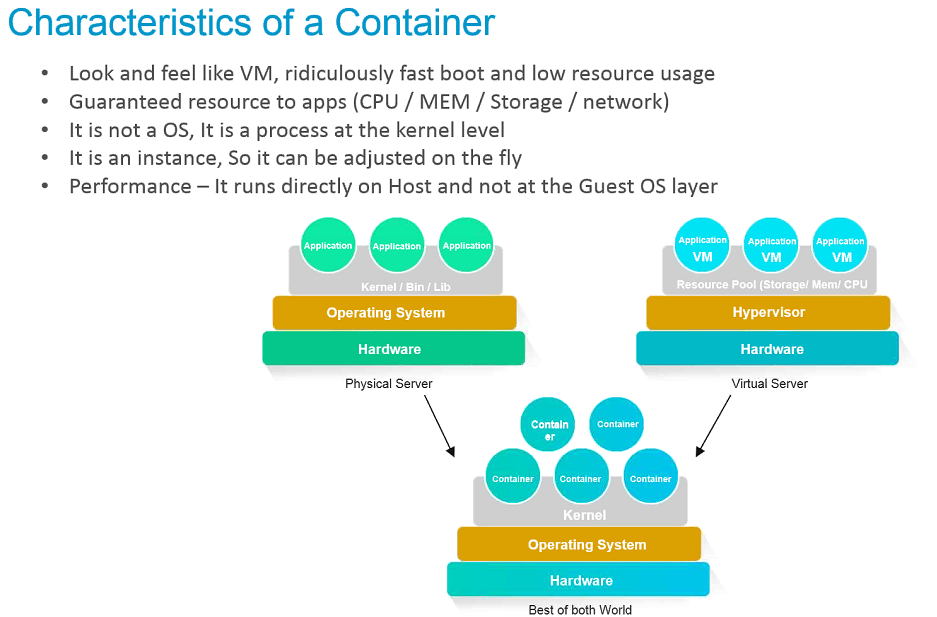


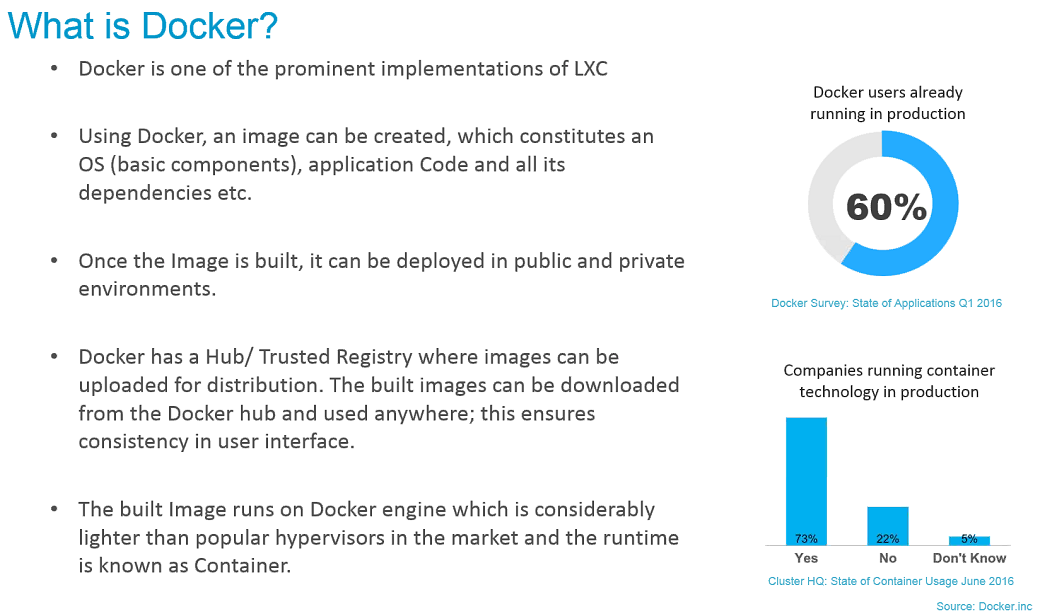


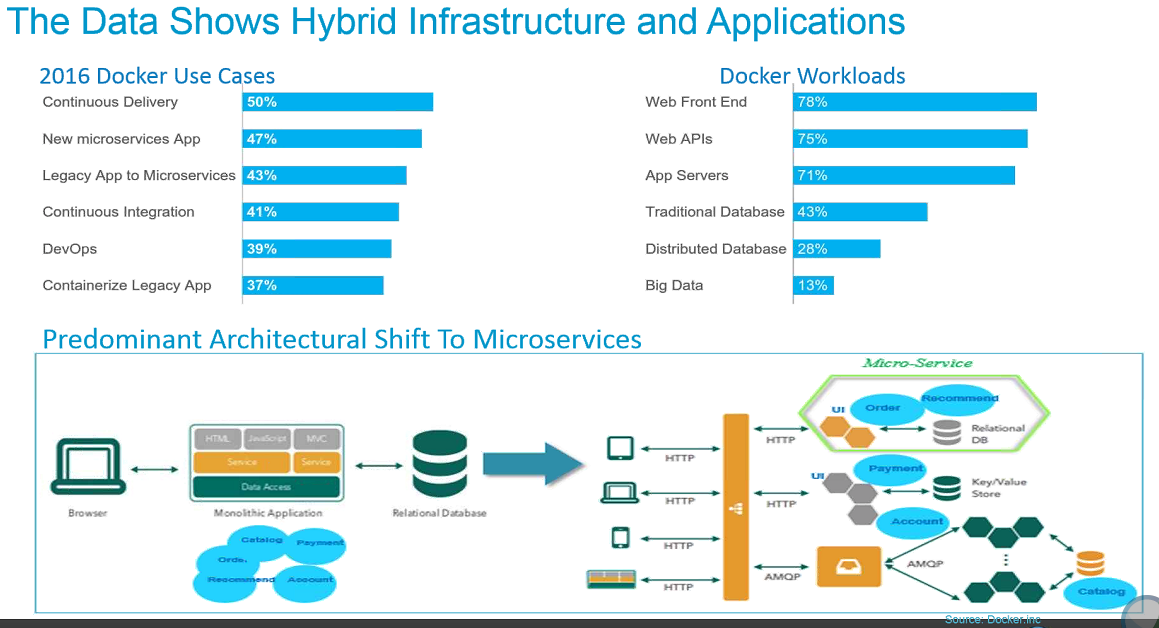


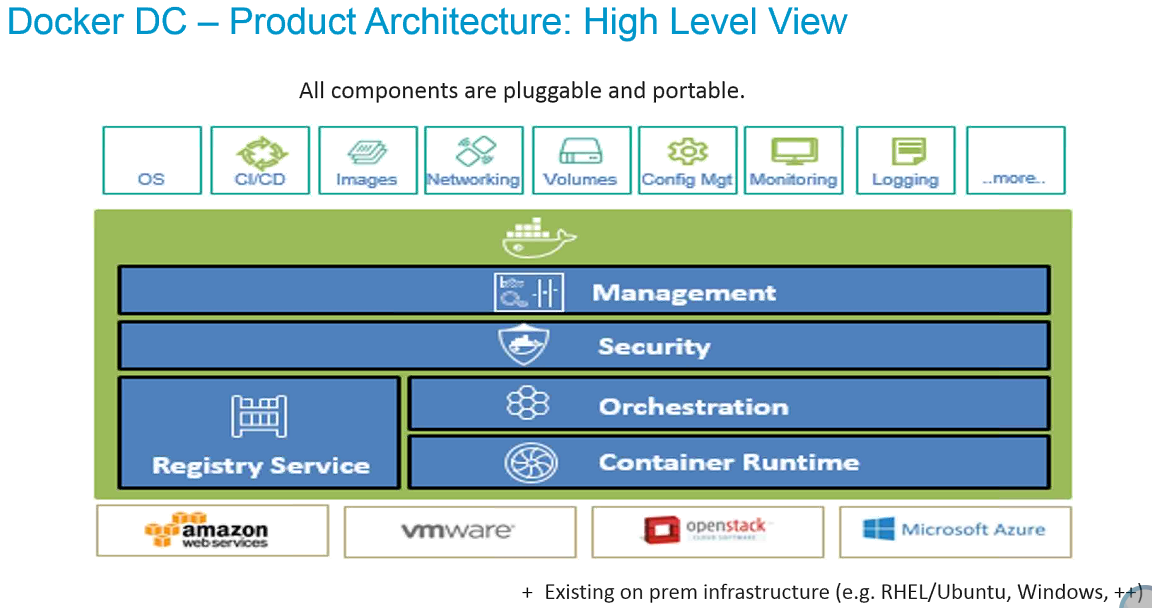


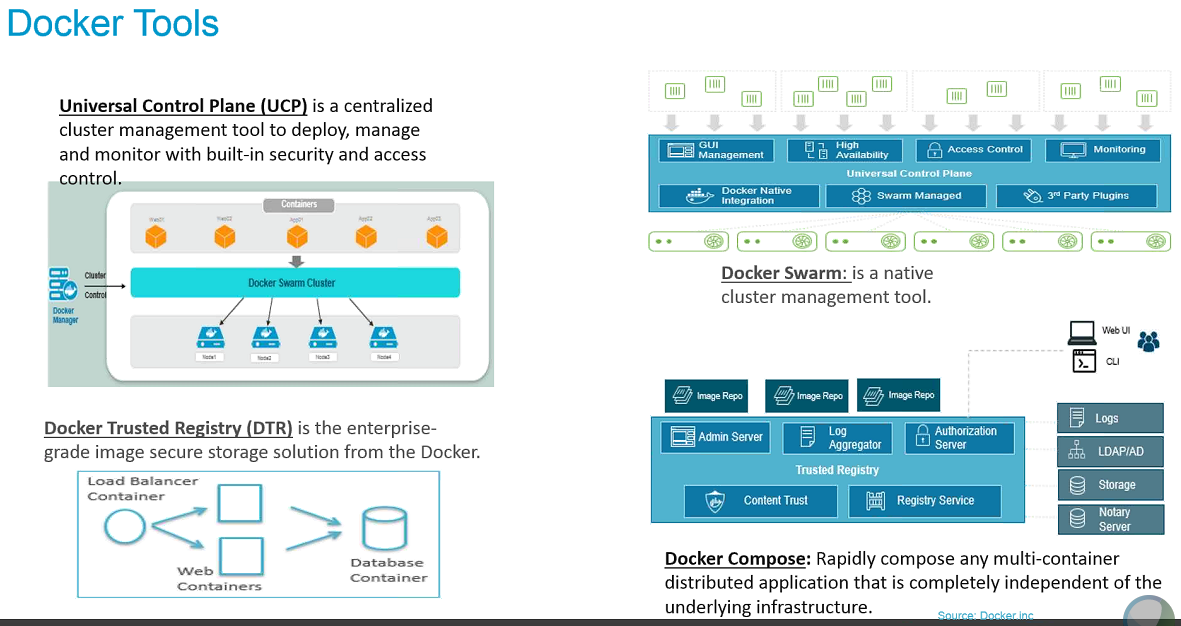


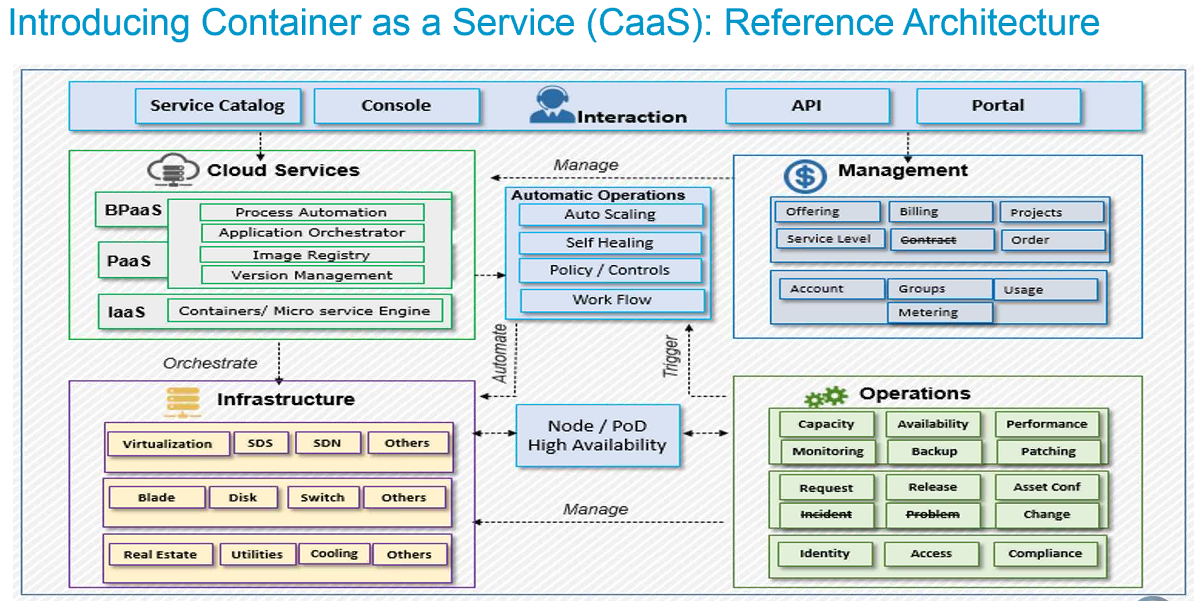


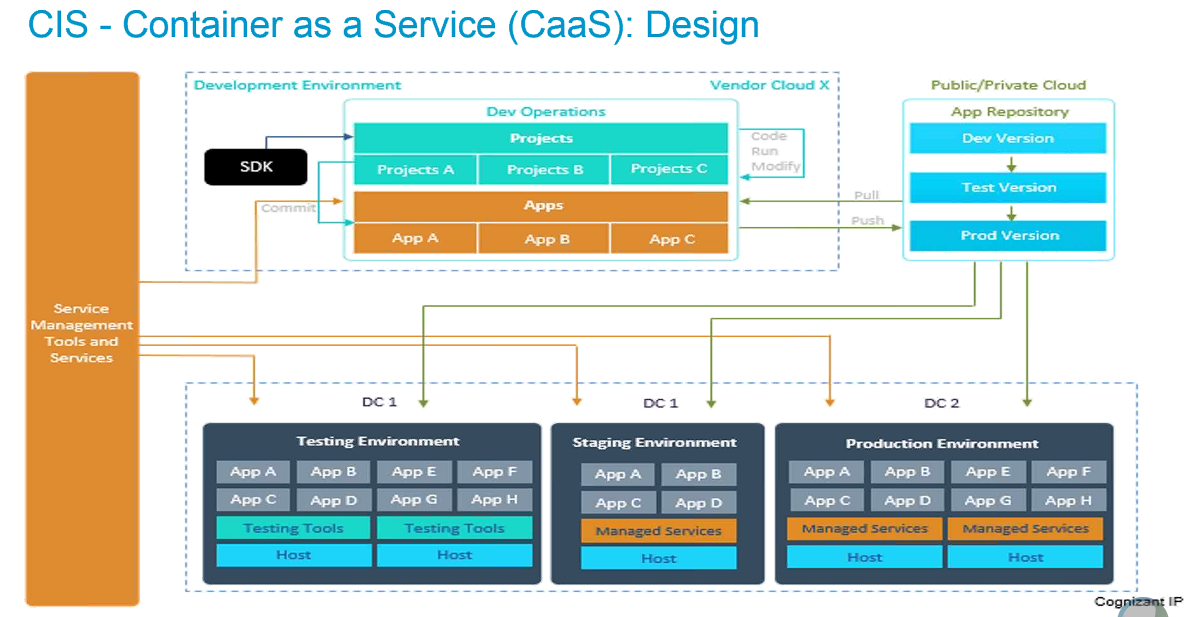


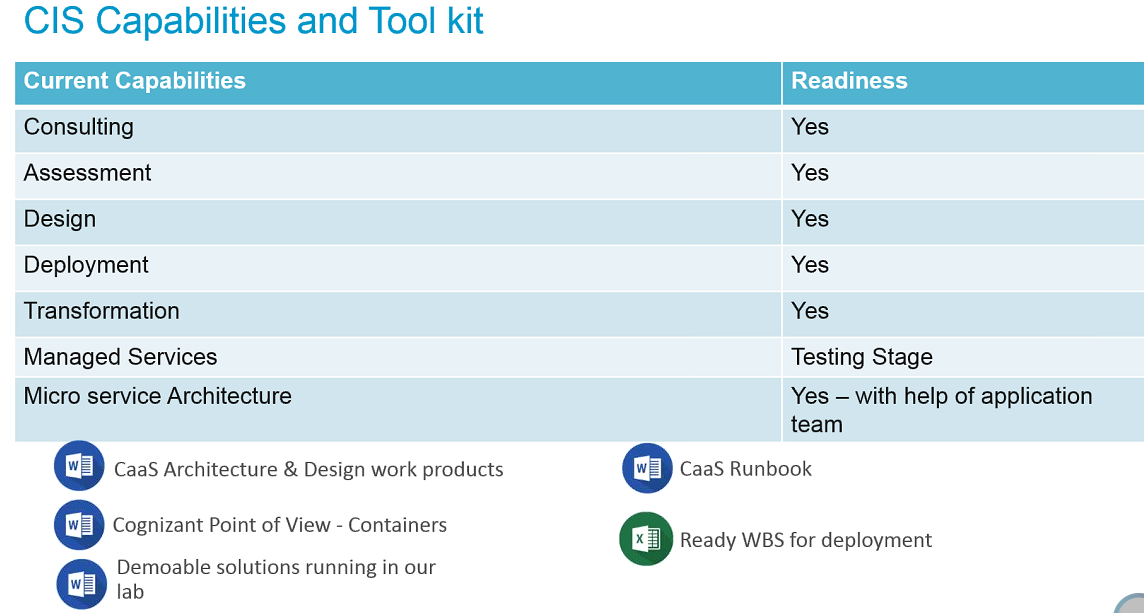


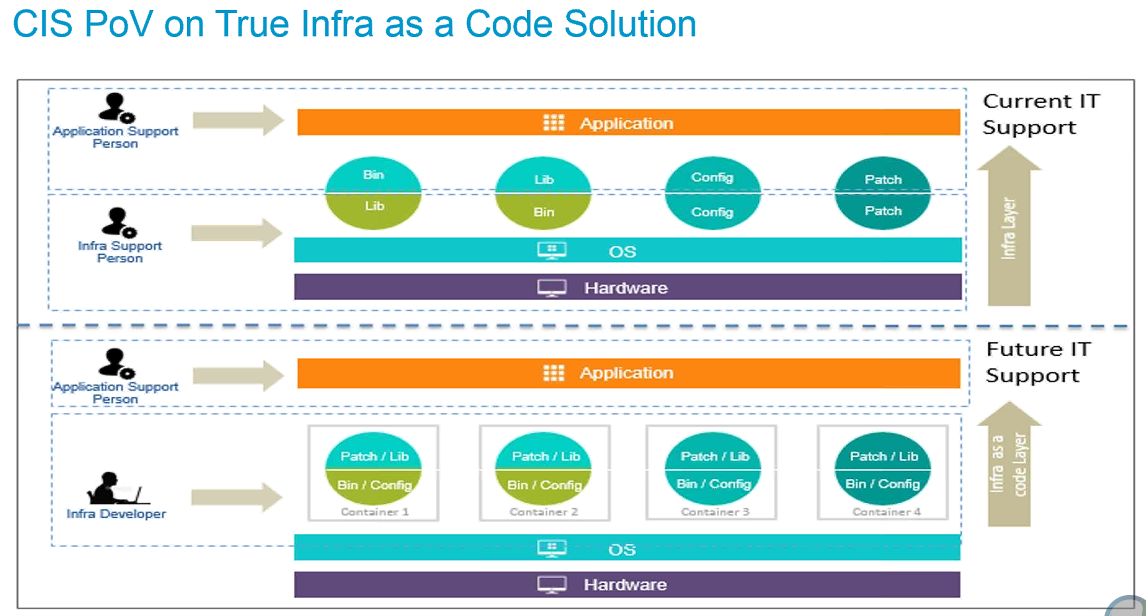


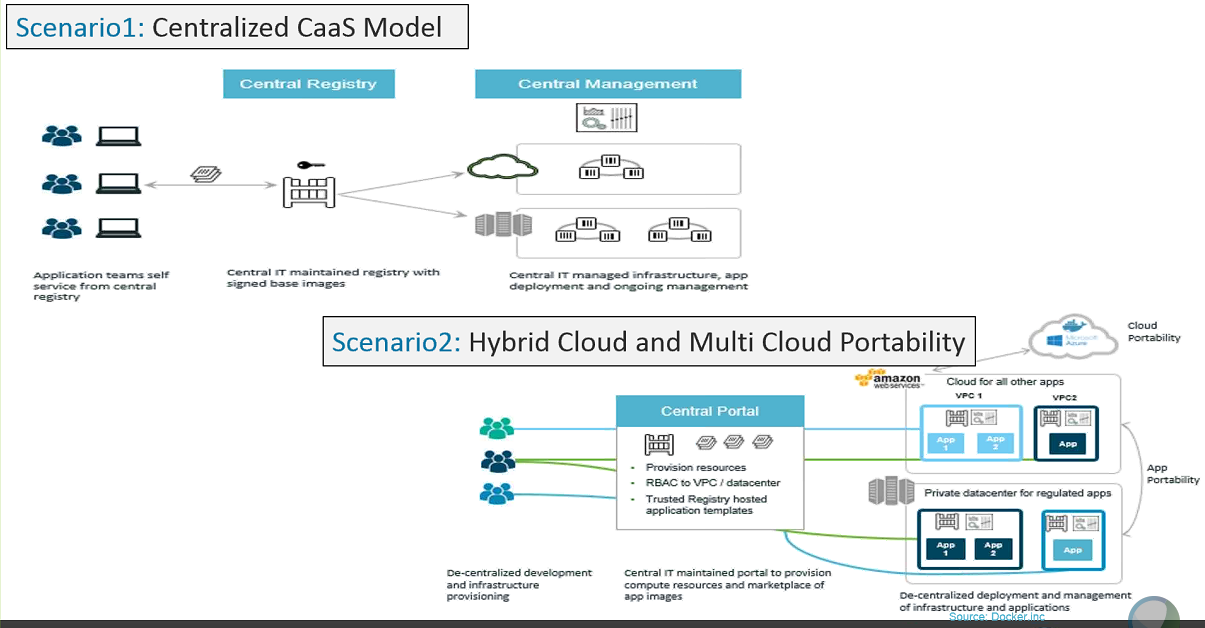


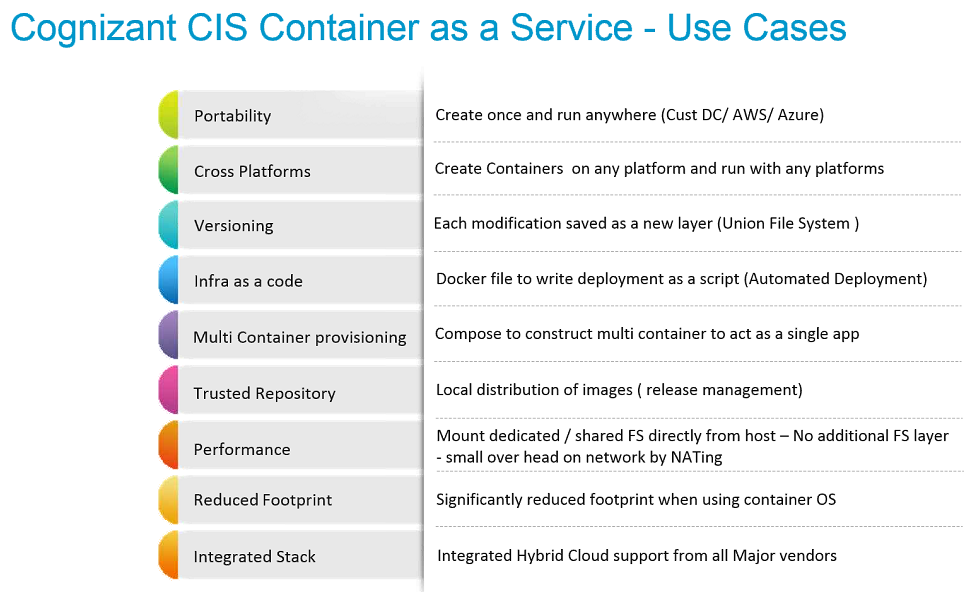




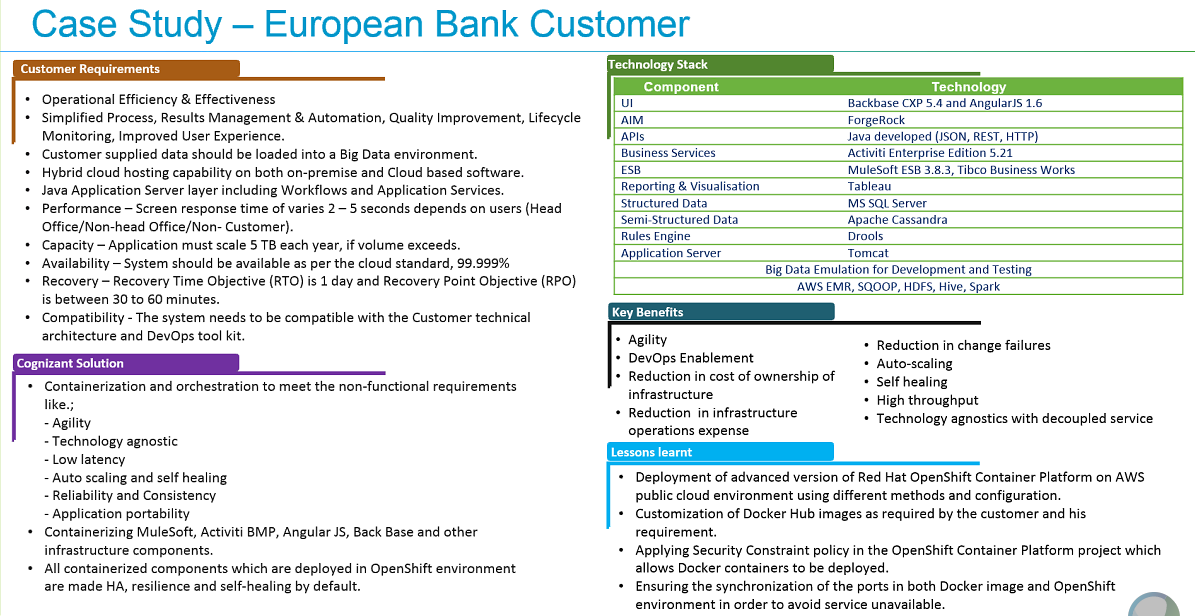


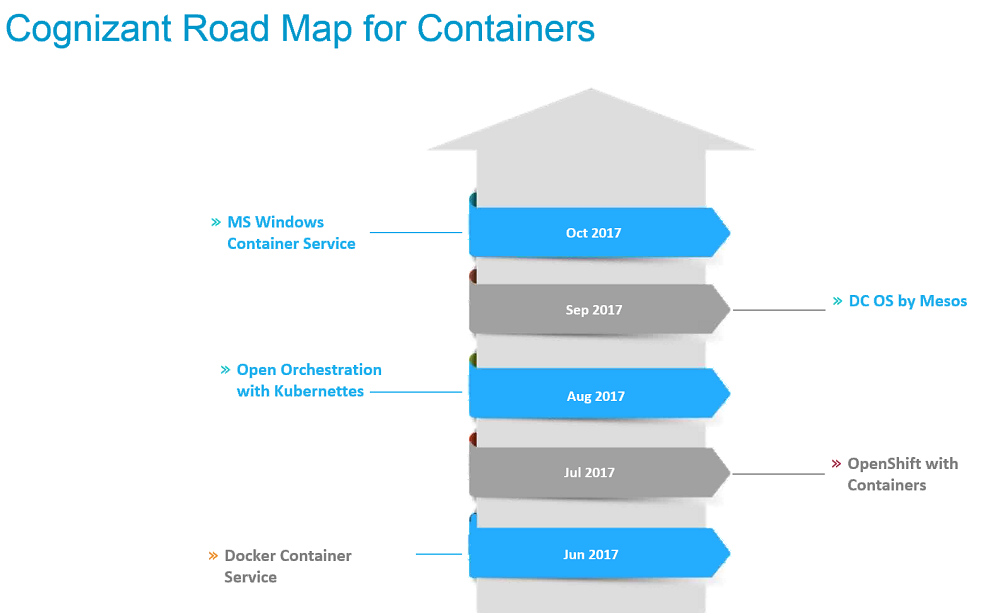


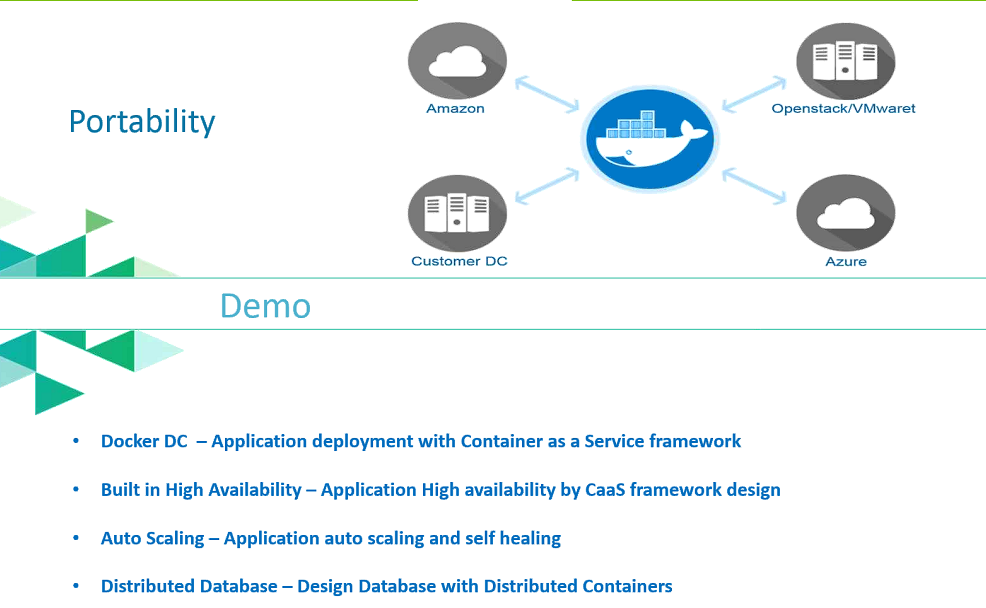












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Containers and serverless (like AWS lambda) computing, how are they different

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Both Docker & AWS Lambda can be used to build microservices, but the two serve different needs. Container orchestration isn't used to build serverless(not cost effective) and Lambda can't be used exclusively to build most apps bein worked on. They're two different tools. HTH.

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How is container different from JVM ?

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JVM is a container to run the app in the "client machine"

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so,.. is docker comparable to JVM ?

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Docker is for full stack applicatiaon that can take inputs from external interfaces viz network sockets and SAN device pointers

from Ataur Rahman to everyone:

if OS is shared in containers, and only one OS can be used at a time. then won't the solution prove costly having multiple containers for different OS in comparison with traditional VIRTUALIZATION

from Raja to everyone:

Every Container will have a Separate Executables hence any monolithic app can be compartmentalized for better management

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Containers share the library with the base OS, that's how they are OS dependent, so container created based on RHEL will need the same version of RHEL it was created from to run & will not run on Ubuntu or on Suse.

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Visualize container as a process running in the OS except that it has everything such as libraries, application within

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usually a client does not run different applications on different version of OS - the standard practice is to use same OS for administration benefit.

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the same concept was introduced in solaris 10 - zones almost 10 years back.. isnt it ?

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but the agility container technology provides will off set all other aspects including the cost.

from Ashish Ratnu to everyone:

That is correct

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but it is not a solution to all scenarios or problems. It is particularly useful for small application that fits micro architecture model......

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LAMP, Lower level applications..

from rajarajan.kannan to everyone:

WPAR -Workload partitions

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you'll need to develop your architecture & implement using Kubernetes

from jagdish to everyone:

How the sizing works over here? I mean on 1 server (32 core, 2TB) memory, how many containers I can fit?

from Karthik Rajasekaran to everyone:

how do we manage the presistance data ?

from Niladri Mukherjee to everyone:

it should be depending on the size of the application you'll be hosting using your containers.... Remember containers are very good candidate for hosting small applications & not good for Heavy Duty applications

from Niladri Mukherjee to everyone:

it has the ability to use persistant storage volume

from Abhay Patil to everyone:

True

from Madhava to everyone:

Is there any restriction on what appliactions can be installed on containers?

from Niladri Mukherjee to everyone:

by its nature every container is ephemeral in nature meaning it will loose all data upon restart - so for real life application we must use persistant storage

from Arun Kumar to everyone:

Licensing is a key aspect. Basically its the software vendor who will comeup with the charging strategy for using their products. Monitoring is one of the important aspect in telling the consumption and based on that vendors can charge to the customers

from Madhava to everyone:

Is it only Webservers, Application Servers...

from Madhava to everyone:

??

from Niladri Mukherjee to everyone:

no

from Niladri Mukherjee to everyone:

not just web application but it is a very good candidate for we application

from Niladri Mukherjee to everyone:

you can host any applications

from Madhava to everyone:

For e.g. Database can be installed on docker?

from Niladri Mukherjee to everyone:

Docker swarm is like Kubernetes but in industry Kubernets is preffered

from Arun Kumar to everyone:

Yes, DB can be installed on containers

from jagdish to everyone:

Is SAP, Hadoop, Oracle DB as well supports by Container?

from Niladri Mukherjee to everyone:

yes, it can be but again the feasibility has to be determied whether it makes sense to use a Oracle DB on a container

from Madhava to everyone:

Even after installing DB on docker..still it will have image size 40-50MB?

from Niladri Mukherjee to everyone:

even en entire openstack environment can be run on container...... so it is capable

from Abhay Patil to everyone:

40-50 Mb size of docker not application

from Arun Kumar to everyone:

Madhava, there is a base OS image called Alpine which is 5MB in size

from Arun Kumar to everyone:

you can install anything on top of Alpine image. So if DB size is 50MB then image size will be 55MB

from Madhava to everyone:

K..my question is..when docker containers moved from one cloud to another....that will take app with it right?

from Niladri Mukherjee to everyone:

yes, it should

from Arun Kumar to everyone:

Yes. its like an appliance so everything move together

from Niladri Mukherjee to everyone:

that's the idea of being shipable

from Madhava to everyone:

So how come it will be just 40MB after DB in it?

from Niladri Mukherjee to everyone:

the data vlume is seprate

from sswaroop to everyone:

How about DR setup

from Niladri Mukherjee to everyone:

container does not contain data within it - it is ephemeral

from Arun Kumar to everyone:

just the binary plus whatever space Data takes

from Arun Kumar to everyone:

Niladri, container can contain data, we loose data only when we remove the container

from jagdish to everyone:

How containers migrate from 1 DC to another DC environmrent? Is there any tool for the same?

from Arun Kumar to everyone:

Jagadish, Docker Hub or Docker Trusted registry is used for it

from Aman Chowdhary to everyone:

DBs usually have high upstream/ downstream dependencies / interact with multiple apps. In such a scenario is it recommended to containerize DB? Also, are there any restrictions on communication among containers?

from Madhava to everyone:

Our client also exploring docker containers..i see its an oppertunity for Cognizant to pitch in...

from Arun Kumar to everyone:

We have achieved Data persistence by using 3rd party tool to persist data. we'll demo that in this session if time permits

from Madhava to everyone:

whom to contact for that from Cognizant?

from Niladri Mukherjee to everyone:

@Arun - ok, but that the base container we have build, my understanding is if we write something in the container during operation - gets lost if we bounce the container, that's why we need to have persistant storage volme attached to the container for retaining the data.

from jagdish to everyone:

Can container supports 3rd. party tool install like platespin, zenoss etc?

from Niladri Mukherjee to everyone:

@Arun - That's a great news!!

from Arun Kumar to everyone:

Bouncing a container does not remove data. Deleting a container only removed the data

from Niladri Mukherjee to everyone:

ok ok

from Karthik Rajasekaran to everyone:

Would someone share the deck .. i think it has more info in it.. which needs more time to go through..

from jagdish to everyone:

Is Exchange, sharepoint as well get install on container pplatform?

from Arun Kumar to everyone:

Jagadish, we can install many applications and even start them using a single script. but thts a bad design, not recommended

from Niladri Mukherjee to everyone:

Windows containers are very newly launced by Microsoft - not sure how mature & stable Server 2016 container platfor is now.

from Arun Kumar to everyone:

Zenoss and such monitoring tools are not much relevant because container monitoring is a completely different ball game and new tools are evolving for monitoring in resonable way

from Niladri Mukherjee to everyone:

The technology is more mature on Linux platform as of now

from jagdish to everyone:

Many thanks Arun, appreciate for your quick responses :)

from GOWRISH S to everyone:

howz kafka and docker are different

from Arun Kumar to everyone:

just like kafka and a physical server

from jairo to everyone:

Jagadish, think about business applications, not infra applications. Reduce the TCO of SDLC and operations of the infra needed for an application. Embrace DevOps to reduce TCO, reduce risk via standardization, increase automation. Applications get simplified, and automatically become elastic. without worrying about the underlying infrastructure any more.

from jagdish to everyone:

Point noted @jairao, thx

from manoj sinha to everyone:

Do we any work space that we can login to expore docker container?

from Sreekanth Sreekumar to everyone:

can you deploy a docker created for Linux on a Windows OS ?

from Raja to everyone:

Folks if you are managing client project and see a heavy dominance of VM it is time to move them to a Container based model as part of Cloud Transformation. Proactive pitch we need to make...This is poised to rule for next 5 years or so unless something new comes and disrupt

from Niladri Mukherjee to everyone:

But the point to remember is containers is not a 100% replacement for VMs but I 100% agree to the note that it is going to rule the market for next 5+ years

from Baranidharan.S to everyone:

do we have auto scaling options as well ?

from Niladri Mukherjee to everyone:

yes, it can be implemented using some orchestration tool

from Niladri Mukherjee to everyone:

btw i mean adding more container but not increasing the size of the container itself

from Sreekanth Sreekumar to everyone:

how to keep the CMDB updated in such scenarios ? Also how will to develop the application dependency mapping ?

from jagdish to everyone:

nice feature :)

from jairo to everyone:

in my mind, the main questions clients will have are: how are CMDB updates and how is container proliferations being managed ?.

from pragnesh to everyone:

when you scal app. to multiple container - those container will be scaled across different physical host or same physical host in backend ?

from Ram Krishna Ghildiyal to everyone:

April 14th?

from SANDEEP ASHTEKAR to everyone:

i am from Infra side , in plans to do lot of technology refresh. how much denifit it will give me there ? any case study on Data Center and Branch Office steup ?

from Brendan Holmes to everyone:

Pls summarise why I should use this rather than Kubernetes.