

SYN413 - Microsoft Containers in a Citrix World

#SYN413 #citrixsynergy

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For the users, by the users

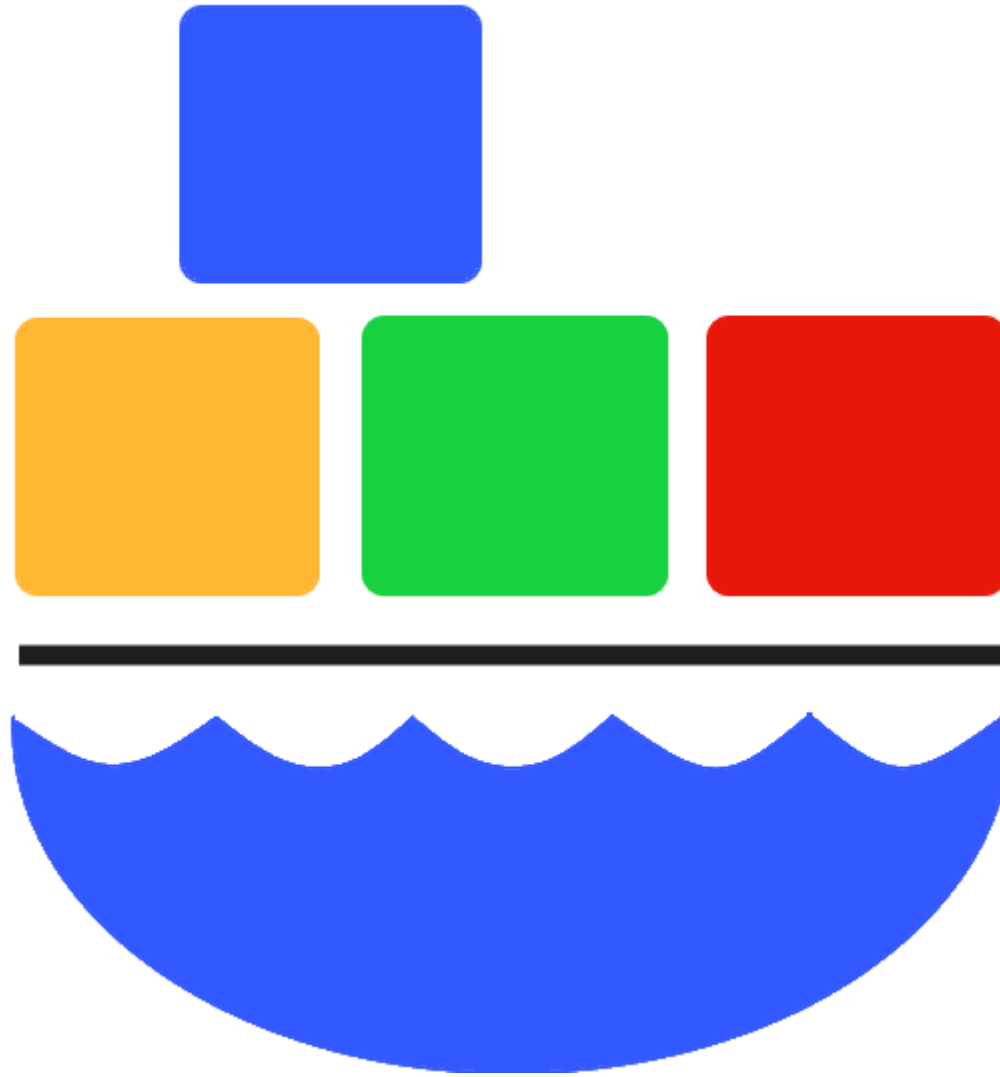
- 16,000+ members globally
- 60+ local user groups and special interest groups (SIGs)
- Knowledge sharing, expert discussion
- Networking at local meetings, conferences and technology events
- Technical webinars, forums and blogs
- Opportunities to share, learn, mentor and lead

"It was an opportunity to bring together like-minded people, network, share stories, and help each other." – CUGC Member



Topics

Windows and Docker
Containers and Citrix
Some Alternatives



Why Are YOU Here?

DevOps or ITPro?

"As a system Administrator, one of the scariest things I ever encounter is a server that has been running for ages. If you absolutely know a system has been created via automation and never changed since the moment of creation, most of the problems disappear."

- Chad Fowler, *Trash Your Servers and Burn Your Code*, 2013

VMs and Containers



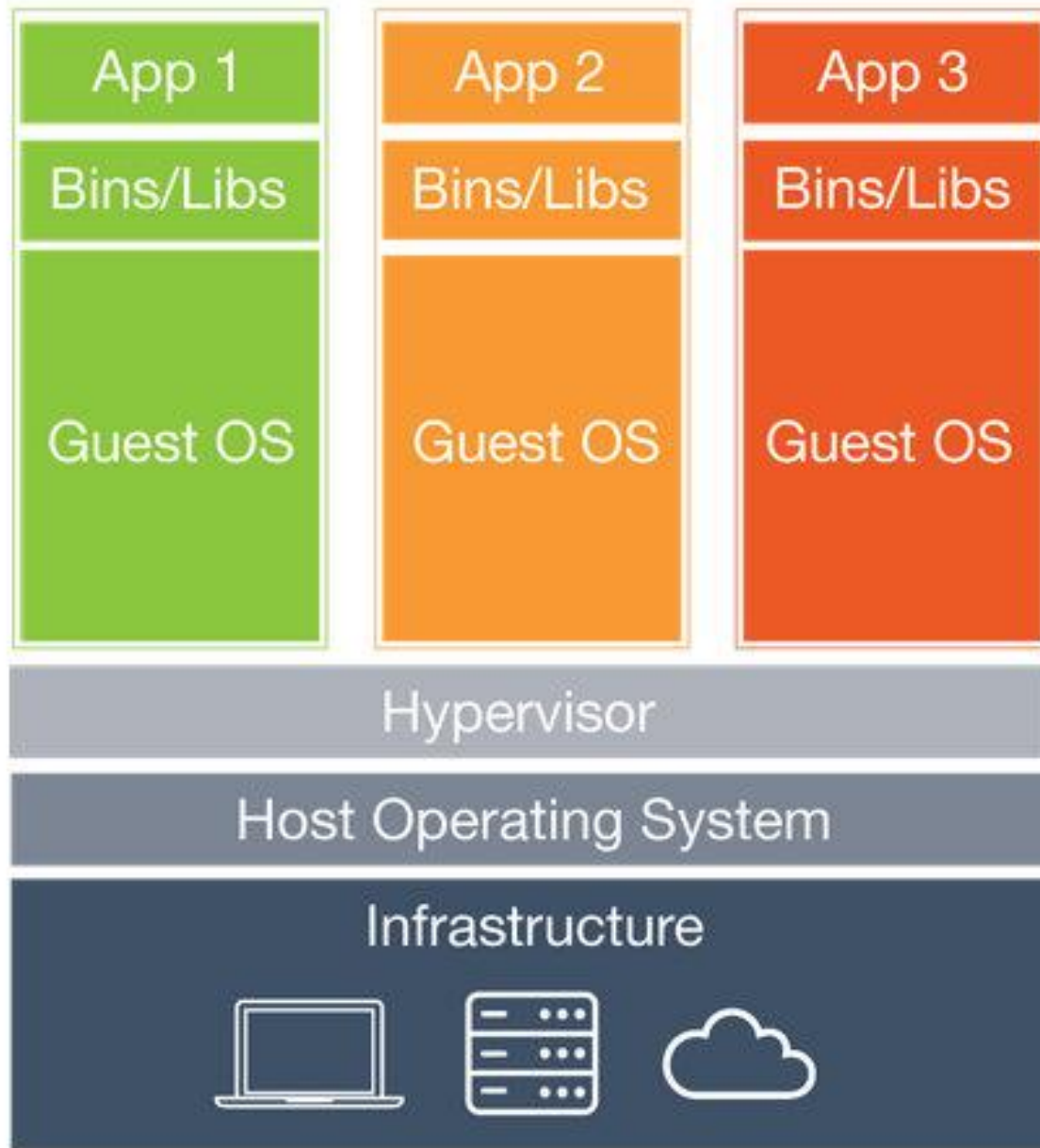
VM's



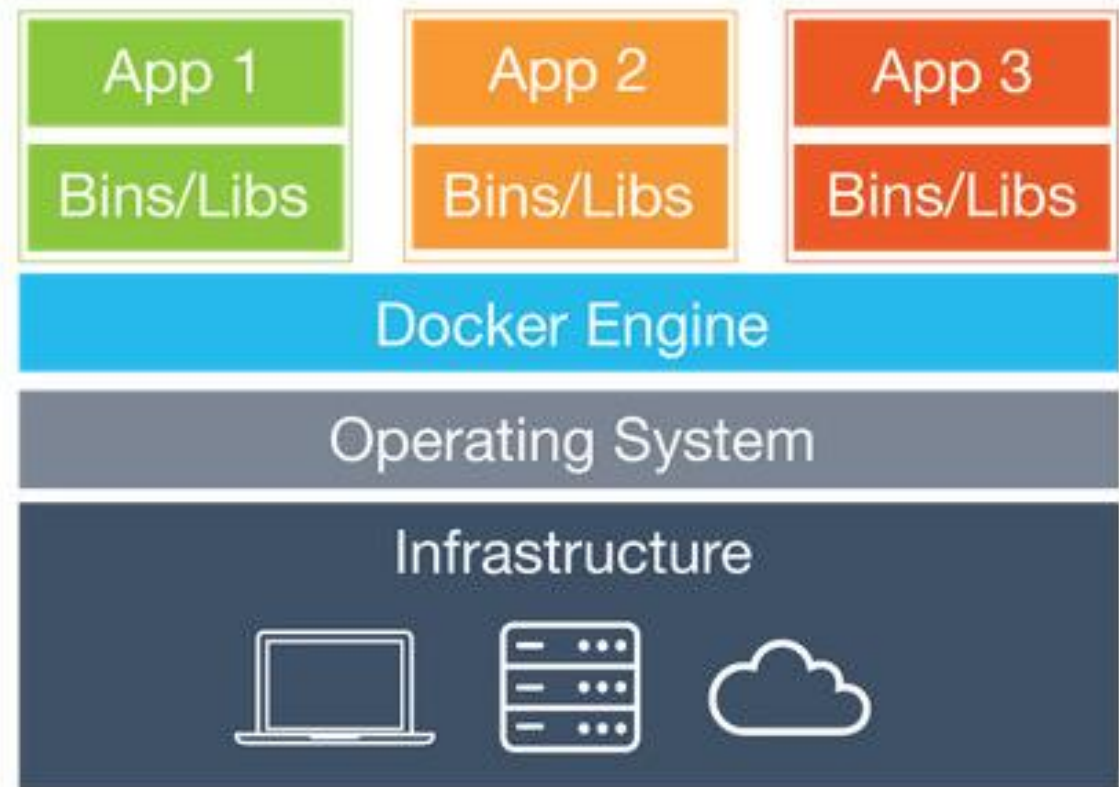
Containers

“Will containers replace VM's?” No.

Containers are not a virtualization technology.
Containers are an application deployment & delivery technology.



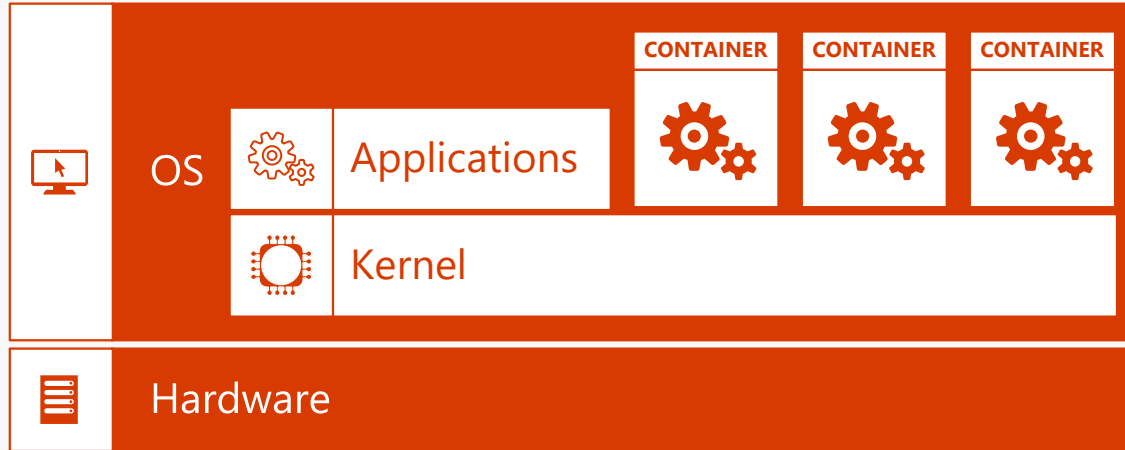
Virtualization



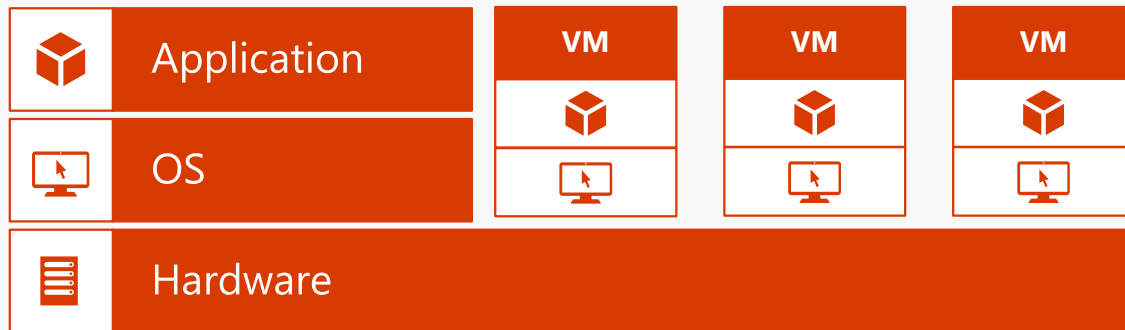
Containers

A Microsoft View of Containers

Containers = Operating system virtualization

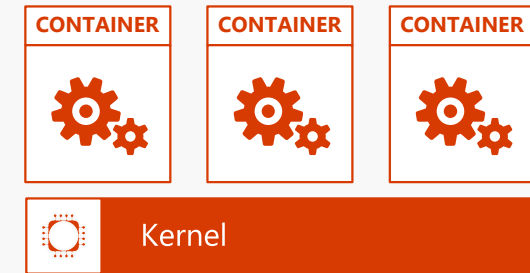


Traditional virtual machines = hardware virtualization



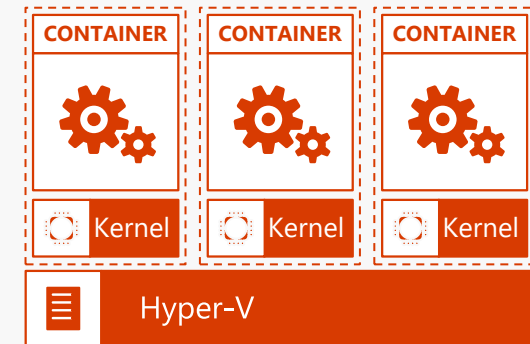
Windows Server Containers

Maximum speed and density

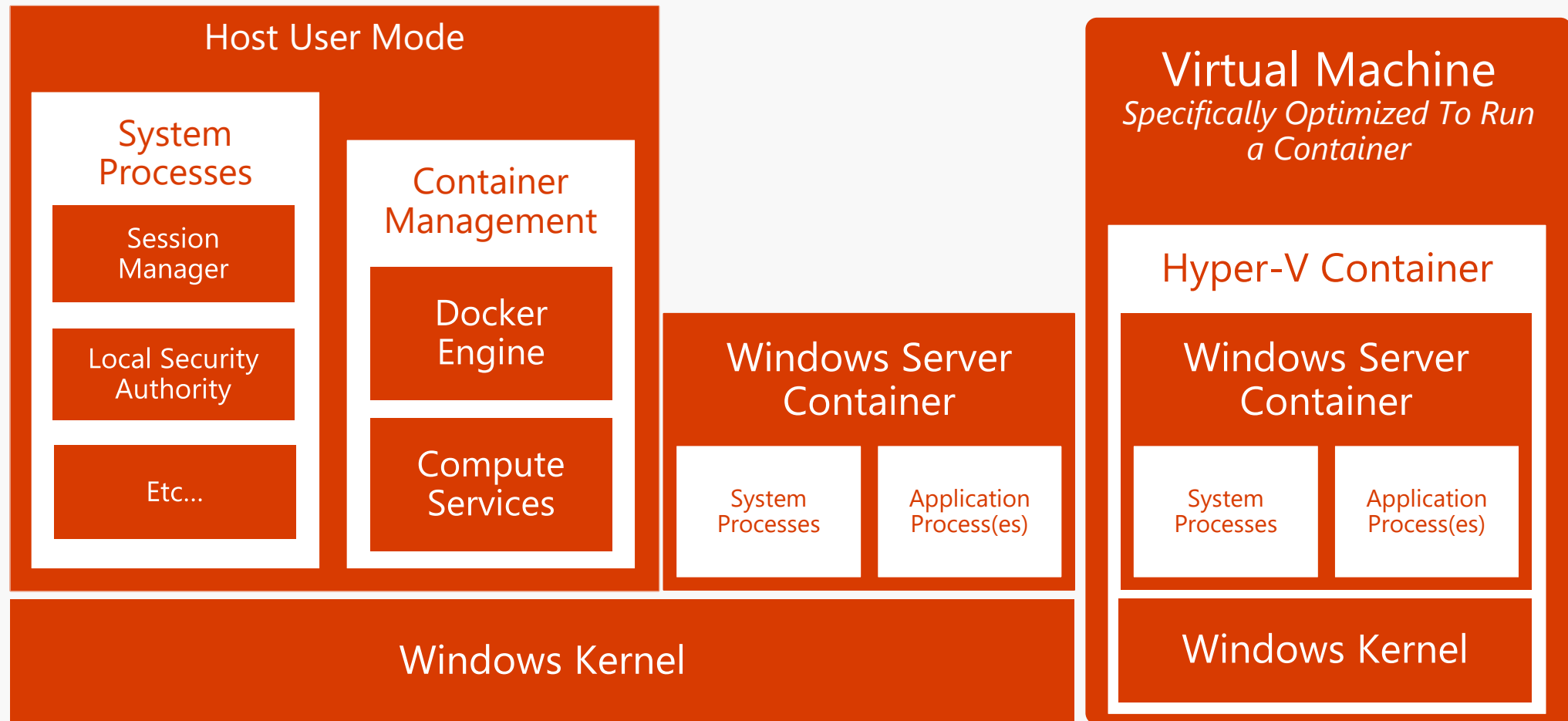


Hyper-V Containers

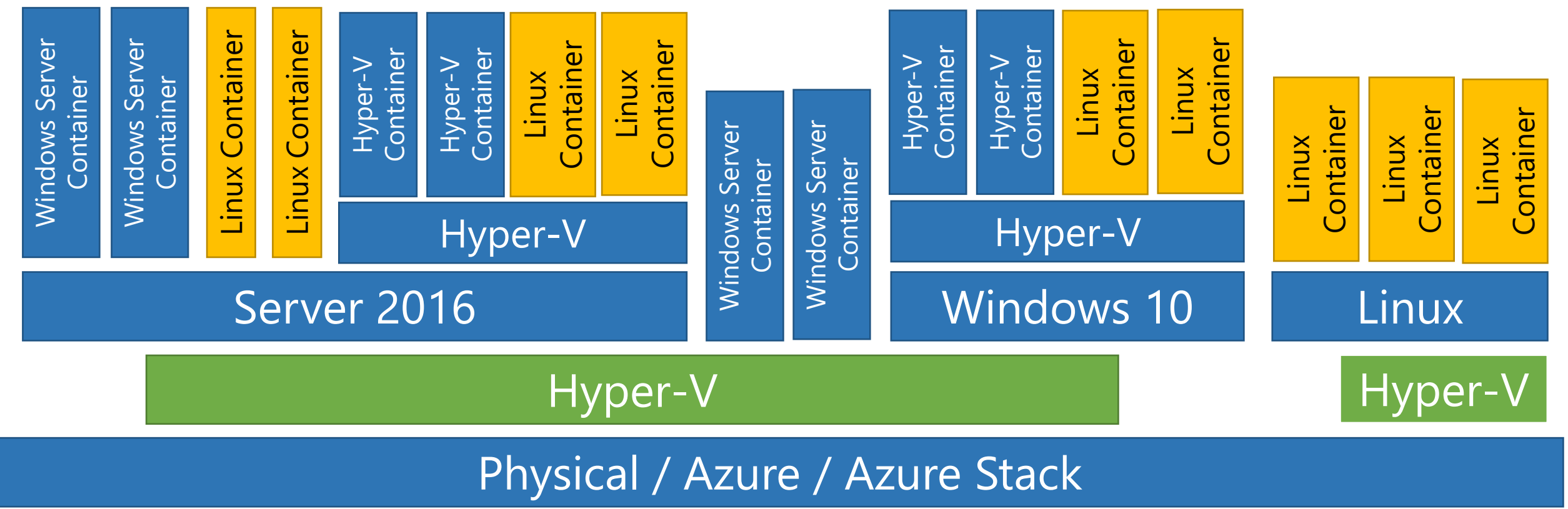
Isolation plus performance



Windows Containers – It's All About User Mode



Windows Server & Hyper-V Containers Mix



Hyper-V = Different OS Releases and Builds
Server OS = Release version must be the same, while Build version can be different

[Admin] PowerShell v5.1 (FileSystem) C:\

[Admin] C:\>

Dockercon 2017



Using Containers

Can I run the “Control Plane” in Containers?

How about Desktops?

And then there are the apps.

CITRIX[®] +  **Microsoft** + **docker**

 **Windows
Server Core**

 **NanoServer**

 **Windows 10**

Docker on Windows

Server Core & Nanoserver only (for now...)

Windows 10 for DEV/Test

Management

- Built-In Docker CLI & PowerShell
- Kitematic, Portainer, Panamax, Simple Docker UI, Shipyard (Linux)

Public or Private Hubs & Registries

Install Demo

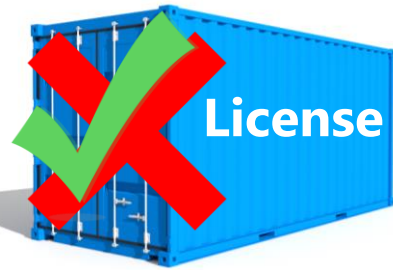
Docker for Windows 10 & Server 2016

Windows Containers & GUI Apps



Containers Running XenDesktop & XenApp

Control Plane



Optional



<https://www.youtube.com/watch?v=uIEJCQDajWw>





"... Docker containers does encapsulate all the code and libraries necessary to run a service. But those services are fundamentally different than the applications that are delivered via traditional application virtualization technologies.

In the end Docker is not a direct replacement for application virtualization. It's a way to take many of the applications deployed using app virt technologies and recreate them in a manner that offers higher levels of agility, portability, and control." – Mike Coleman, Technical Evangelist @ Docker





Spoon.net

“Docker for Windows”

- Rory Monaghan 2014

www.xenappblog.com

“Containers” similar to Docker

- Pre-made or custom images

- CLI, Turbo Studio, Turbo Server

- Updating & Layering

- Importing from other formats

- Container “skinning” & streaming

- Desktop & server apps – XP to 2016 & beyond

Turbo Studio

- Virtualize app into EXE & publish - manual or via Register utility

- Register utility allows for app to be placed on machine or share & in 7.x it will appear in Citrix Studio Wizard

“XenApp Subscription”

- Channel -> Subscribe -> Publish

- XenApp Tools to automate setup are provided

- <https://github.com/turboapps/citrix>

Turbo.net Demo

Image2Docker



PoSH module that ports existing Windows app artifacts from VM's to Docker images

Artifacts currently supported –

- IIS
- ASP.NET
- MySQL, SQL
- Windows Features
- Apache
- DHCP
- DNS
- MSMQ

Discover -> Extraction -> Provisioning -> Generation

Containers are
not VM's (and
never will be)

Containers are
about User
Mode

Windows +
LinuxKit = Multi-
Platform

OS & GUI
Limitations

Hyper-V for
secure container
isolation

Use Win 10
Docker for
Dev/Test

There are
alternatives for
delivering apps

Citrix needs to
support Core

Thank You!