

VMWare

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Infrastructure

Kubernetes Cluster on VMWare Workstation 15 across multiple physical machines

Issue: running a Kubernetes cluster across multiple VMs across multiple physical machines - sharing ports and the network

VMware Fusion Pro - OSX

Verify VMX capability

```
sysctl -a | grep -E --color 'machdep.cpu.features|VMX'  
machdep.cpu.features: FPU VME DE PSE TSC MSR PAE MCE CX8 APIC SEP MTRR PGE MCA CMOV PAT PSE36 CLFSH DS ACPI MMX  
FXSR SSE SSE2 SS HTT TM PBE SSE3 PCLMULQDQ DTES64 MON DSCPL VMX EST TM2 SSSE3 FMA CX16 TPR PDCM SSE4.1 SSE4.2  
x2APIC MOVBE POPCNT AES PCID XSAVE OSXSAVE SEGLIM64 TSCTMR AVX1.0 RDRAND F16C
```

Port Forwarding on VMware Fusion

Via VMware Fusion 11.5 gui

in Preferences | Network - add a new network - add a port forward rule. Switch the VM to use this network. Restart VM, Rewrite port forward rule with new IP

```
// test connection  
  
biometric:reference user$ ssh user@192.168.20.156 -p 2022  
Last login: Tue May 19 15:53:06 2020 from 192.168.58.1  
user@obriensystems0:~$ ifconfig  
ens33 Link encap:Ethernet HWaddr 00:0c:29:ab:19:b7  
inet addr:192.168.75.128 Bcast:192.168.75.255 Mask:255.255.255.0
```

Via command line

see RKE port exposure in [Kubernetes Developer Guide#ExposingRKEportsontheVMs](#)

```
sudo vi /Library/Preferences/VMware\ Fusion/vmnet2/nat.conf  
sudo /Applications/VMware\ Fusion.app/Contents/Library/vmnet-cli --stop  
sudo /Applications/VMware\ Fusion.app/Contents/Library/vmnet-cli --start
```

Issues

Workstation Pro 16 and Hyper-V

It seems workstation and hyper-v still dont work together but out of the box on a new thinkpad P17 - after installing docker desktop to use WSL - VMware still cannot do nested virtualization.

getting

Virtualized Intel VT-x/EPT is not supported on this platform.

even though VT-X, virtualization is on (showing in task manager.
I was running without hyper-v via WSL for docker desktop 2.5.0.0

<https://communities.vmware.com/thread/643805>

<https://docs.vmware.com/en/VMware-Workstation-Pro/16.0/workstation-pro-16-user-guide.pdf>

VBS and Hyper-V = slower

Solution

Installing Windows Hypervisor Platform (keeping hyper-v off as it is not required anymore for Docker Desktop) - in windows features on/off near the botton

<https://docs.microsoft.com/en-us/virtualization/api/>

did not work, this works <https://communities.vmware.com/thread/634674>

```
flip from auto to in an admin powershell and reboot  
bcdedit /set hypervisorlaunchtype off
```

breaks docker

An error occurred

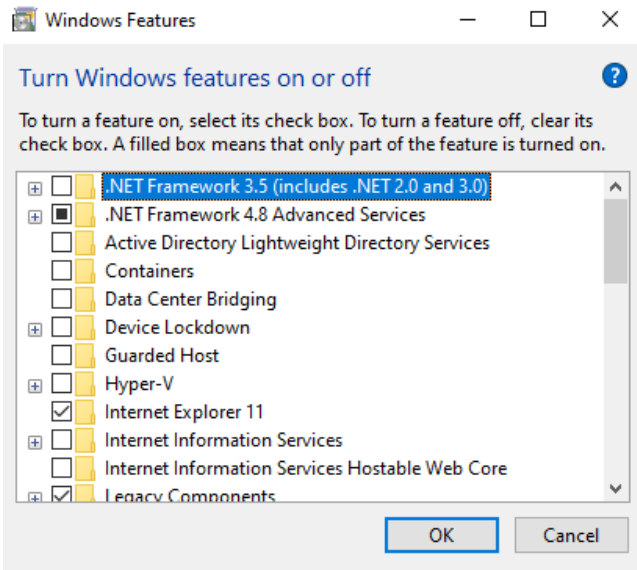


Hardware assisted virtualization and data execution protection must be enabled in the BIOS. See <https://docs.docker.com/docker-for-windows/troubleshoot/#virtualization>

Workstation and Docker Desktop - Hyper-v Incompatibility

For at least until late 2020 - hyper-v is required for docker but VMware needs this windows feature disabled = <https://kb.vmware.com/s/article/76918>

turn off both hyper-v and containers in windows features



OSX can run both concurrently with no issues.

Workstation 15.0 no longer launches under Windows 10 Prof Nov 2019 Release

If you get the following dialog running VMWare workstation as of Nov 2019

Run the following registry edit to allow Workstation 15 to run again on Windows 10.

```
Windows Registry Editor Version 5.00
[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\AppCompatFlags]
"{3d9912c3-cb54-4f34-ab71-1d429553bf96}"=dword:00000077
"{66f21bbc-149a-411b-8e11-880af7c1266c}"=dword:00000077
```

Running Workstation 12.5 (from 15) - requires credential guard disable

<https://docs.microsoft.com/en-us/windows/security/identity-protection/credential-guard/credential-guard-manage>

VMWare Fusion 11 on OSX 10.15 Issues

<https://www.huibdijkstra.nl/how-to-set-up-a-osx-mojave-vm-in-vmware-fusion/>