

# Slow Startup on Exchange VM\_RDP SSH

Last updated by | Kevin Gregoire | Mar 29, 2022 at 11:47 AM PDT

## Tags

[cw.TSG](#)[cw.RDP-SSH](#)

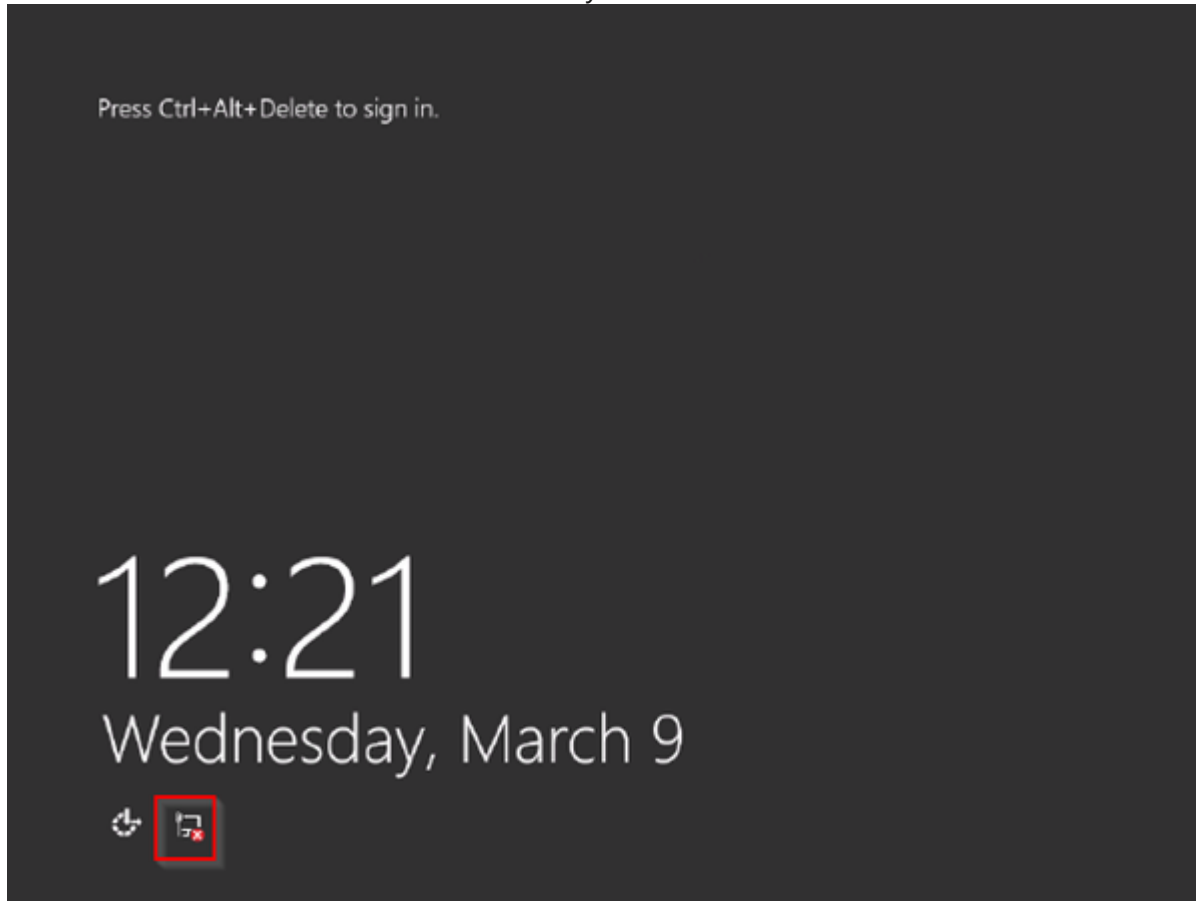
## Contents

- [Symptoms](#)
- [Root Cause Analysis](#)
  - [References](#)
  - [Tracking close code for this volume](#)
- [Customer Enablement](#)
- [Mitigation 1](#)
- [Mitigation 2](#)
- [Mitigation 3](#)
  - [Additional information - Exchange](#)
  - [Escalate](#)
- [Need additional help or have feedback?](#)

## Symptoms

- The VM is running an Exchange Server.
- After roughly 40min, the machine regains network connectivity.

- The VM screenshot shows that the OS is fully loaded but there's no network.



- The customer is migrating or failing over an Exchange Server to Azure, after completion the Exchange VM is not reachable and has a red cross/x on the NIC (Boot Diagnostics -> Screenshot).

## Root Cause Analysis

1. The virtual machine has some application that is extremely heavy for the size of the machine. This behavior was seen in Exchange servers on IAAS machines and was due to the customer is not fulfilling the prerequisites for running an Exchange Server with the size of the virtual machine.
2. Exchange services and retry mechanisms can cause delay in driver installation and ultimately timeout leaving device detected but no driver installed. *setupapi.dev.log* file from failover VM OS disk (*c:\windows\inf*) will show similar errors as below sample: [Exchange Server No or Disconnected NIC after Failover](#)








```

dvi: {DIF_SELECTBESTCOMPATDRV} 14:54:36.233
dvi:     Default installer: Enter 14:54:36.425
dvi:     {Select Best Driver}
dvi:         Class GUID of device changed to: {4d36e972-e325-11ce-bfc1-08002be10318}.
dvi:         Selected:
dvi:             Description - [Microsoft Hyper-V Network Adapter]
dvi:             InfFile      - [c:\windows\system32\driverstore\filerepository\wnetvsc.inf_am
dvi:             Section      - [netvsc_Device]
dvi:         {Select Best Driver - exit(0x00000000)}
dvi:     Default installer: Exit
dvi: {DIF_SELECTBESTCOMPATDRV - exit(0x00000000)} 14:54:36.432
ndv: {Core Device Install} 14:54:36.432
ndv:     {Install Device - VMBUS\{F8615163-DF3E-46C5-913F-F2D2F965ED0E}\{000D3A76-AD7E-000D-3A76-AD7
ndv:         Parent device: ACPI\VBUS\0
ndv:     {Configure Device - VMBUS\{F8615163-DF3E-46C5-913F-F2D2F965ED0E}\{000D3A76-AD7E-000D-3
ndv:         Parent device: ACPI\VBUS\0
sto:     {Configure Driver Package: C:\Windows\System32\DriverStore\FileRepository\wnetvsc
sto:         Source Filter  = vmbus\{f8615163-df3e-46c5-913f-f2d2f965ed0e}
inf:         Class GUID     = {4d36e972-e325-11ce-bfc1-08002be10318}
inf:         Class Options  = Configurable
inf:     {Configure Driver: Microsoft Hyper-V Network Adapter}
inf:         Section Name = netvsc_Device
inf:     {Add Service: netvsc}
inf:         Start Type    = 3
inf:         Service Type  = 1
inf:         Error Control = 1
inf:         Image Path    = \SystemRoot\System32\drivers\netvsc.sys
inf:         Group         = Extended Base
<<< Section end 2020/05/14 14:59:52.190
<<< [Exit status: FAILURE(0x000005b4)]
0x000005b4 = Timeout

```

- [Exchange Server No or Disconnected NIC after Failover](#)

## References

- [Resize virtual machines](#) 
- [Exchange 2013 virtualization](#) 
- [Requirements for hardware virtualization](#) 
- [Exchange Server virtualization](#) 
- [Prepare a Windows VHD or VHDX to upload to Azure](#) 
- [Connect to Azure VMs after failover from on-premises](#) 
- [Troubleshooting remote desktop connection after failover using ASR](#) 


Tracking close code for this volume

Root Cause	Product	Support Topic	Cause Tracking code	Bug
1	Azure Virtual Machine – Windows	<b>For existing VMs:</b> <i>Routing Azure Virtual Machine V3\Cannot Connect to my VM\Failure to connect using RDP or SSH port</i>	<i>Root Cause - Windows Azure\Virtual Machine\Guest OS - Windows\Isolated\Slow Startup</i>	
	Azure Virtual Machine – Windows	<b>For machines migrated with ASR:</b> <i>Routing Azure Virtual Machine V3\Cannot create a VM\I am unable to deploy a captured or generalized image</i>	<i>Routing Cause - Windows Azure\Virtual Machine\VM Deployment, Start, Stop, Resize, Delete failures\ARM Template issues</i>	

## Customer Enablement

N/A

## Mitigation 1

1. If the machine has Exchange installed then check the customers current setup. *The minimum size for an Exchange VM is DS3. I.E. < 8 GB RAM and the Database and Log files need to be stored on Premium Storage. Additionally, customer's should not install Exchange on the OS drive.*
2. Have the customer remove the database and transactional logs from the C: drive and ask them to place all the exchange files and database on a RAID configuration of premium disks
3. Send an email with the case, subscription, issue, and VM to [Tim Larson](#) for awareness.
4. If after this the issue remains (red cross on the network and after 40-50mins the network is up), Exchange team needs to be engaged via RAVE [Collaboration from DfM to RAVE](#) . Cut a problem with the following values:
  - Product: **Azure Virtual Machine - Windows**
  - Support Topic: **Manage an Exchange Server**

## Mitigation 2

1. Engage Azure Site Recovery team for more assistance and follow the recommended action in this wiki [Exchange Server No or Disconnected NIC after Failover](#)

## Mitigation 3

1. If the above does not work, have the customer backup the source/on-prem server and disable every service that starts with *Microsoft Exchange* prior to the migration. Then attempt the failover/migration once again.

## Additional information - Exchange

Microsoft supports Exchange 2013 in production on hardware virtualization software only when all the following conditions are true:

- The hardware virtualization software is running one of the following:
  1. Any version of Windows Server with Hyper-V technology or Microsoft Hyper-V Server
  2. Any third-party hypervisor that has been validated under the Windows Server Virtualization Validation Program.

**Note:** Deployment of Exchange 2013 on Infrastructure-as-a-Service (IaaS) providers is supported if all supportability requirements are met. In the case of providers who are provisioning virtual machines, these requirements include ensuring that the hypervisor being used for Exchange virtual machines is fully supported, and that the infrastructure to be utilized by Exchange meets the performance requirements that were determined during the sizing process. Deployment on Microsoft Azure virtual machines is supported if all storage volume used for Exchange databases and transaction logs (including transport databases) are configured for Azure Premium Storage.

- The Exchange guest virtual machine has the following conditions:
  1. It's running Exchange 2013
  2. It's deployed on Windows 2012 and above

## Escalate

1. If this doesn't work out, please reach out to the [Unable to RDP-SSH SME channel on teams](#) ☐ for advise providing the case number, issue description and your question

## Need additional help or have feedback?

<i>To engage the Azure RDP-SSH SMEs...</i>	<i>To provide feedback on this page...</i>	<i>To provide kudos on this page...</i>
<p>Please reach out to the <a href="#">RDP-SSH SMEs</a> ☐ for faster assistance.</p> <p>Make sure to use the <a href="#">Ava process</a> for faster assistance.</p>	<p>Use the <a href="#">RDP-SSH Feedback</a> form to submit detailed feedback on improvements or new content ideas for RDP-SSH.</p> <p><b>Please note</b> the link to the page is required when submitting feedback on existing pages! If it is a new content idea, please put N/A in the Wiki Page Link.</p>	<p>Use the <a href="#">RDP-SSH Kudos</a> form to submit kudos on the page. Kudos will help us improve our wiki content overall!</p> <p><b>Please note</b> the link to the page is required when submitting kudos!</p>