

Message Queueing Service not Running_RDP SSH

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

Tags

cw.TSG

cw.RDP-SSH

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Symptoms

1. The VM screenshot shows the OS fully loaded and waiting for the credentials.
2. There's no connectivity to the virtual machine on its VIP or DIP, verified with [VM Port Scanner](#).

3. The VM might be responding ping to PA and to DIP from same subnet. Also might be accessible by File Share.
4. On the Guest OS Logs, you'll see that the Message Queueing (MSMQ) service is taking too long to start or not starting at all.
5. You could also find that other services are failing to start due to this.


```
Log Name: System
Source: Service Control Manager
Date: 4/24/2017 11:23:40 AM
Event ID: 7044
Task Category: None
Level: Warning
Keywords: Classic
User: N/A
Computer: computername.contoso.com
Description:
The following service is taking more than 16 minutes to start and may have stopped responding: Message Queueing Service. Contact your system administrator or service vendor for approximate startup times for this service. If you think this service might be slowing system response or logon time, talk to your system administrator. You may have to restart the computer in safe mode before you can disable the service.
```

```
Log Name: System
Source: Service Control Manager
Date: 4/24/2017 11:24:00 AM
Event ID: 7022
Task Category: None
Level: Error
Keywords: Classic
User: N/A
Computer: computername.contoso.com
Description:
The Message Queueing service hung on starting.
```

Root Cause Analysis

An application running in the Virtual Machine depends on the Message Queueing (MSMQ) service which is taking too long to start or not starting at all

Tracking close code for this volume

Root Cause	Product	Support Topic	Cause Tracking code	Bug
1	Azure Virtual Machine  Windows	Routing Azure Virtual Machine V3\Cannot Connect to my VM\Failure to connect using RDP or SSH port	Root Cause - Windows Azure\Virtual Machine\Guest OS - Windows\Isolated\Windows Services not starting/crashing	

To know how to flag a bug on a case please refer to [How to do Proper Case Coding](#)

References

N/A

Customer Enablement

N/A

Mitigation

Having services in hung state either starting or stopping is not good specially during the booting/shutdown of the VM since the service dependencies that you could have. In order to be able to RDP to the VM again, it will be necessary to change the MSMQ service startup type to manual.

Backup OS disk

▼ Click here to expand or collapse this section

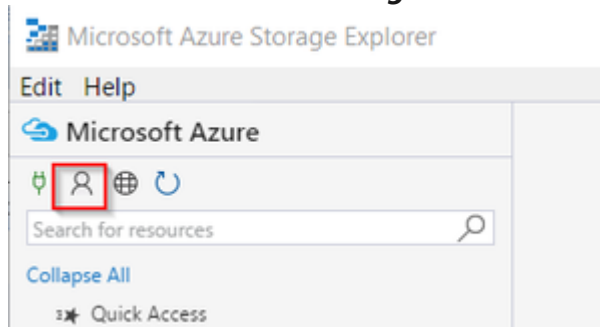
1. Before doing anything, please validate if this is an encrypted VM. On ASC check on the Resource Explorer on the VMCard for the value *OS Disk Encrypted*

OS Disk Lease Id	0d69a55c-0317-40fa-a032-b1f3550f3775
OS Disk Lease Acquired	True
OS Disk Billing Validated	True
OS Disk Encrypted	False
Billing Code	Windows_iaaS
Billing is Created from Marketplace Image	N/A
Billing Tag GUID	00000000-0000-0000-0000-000000000000

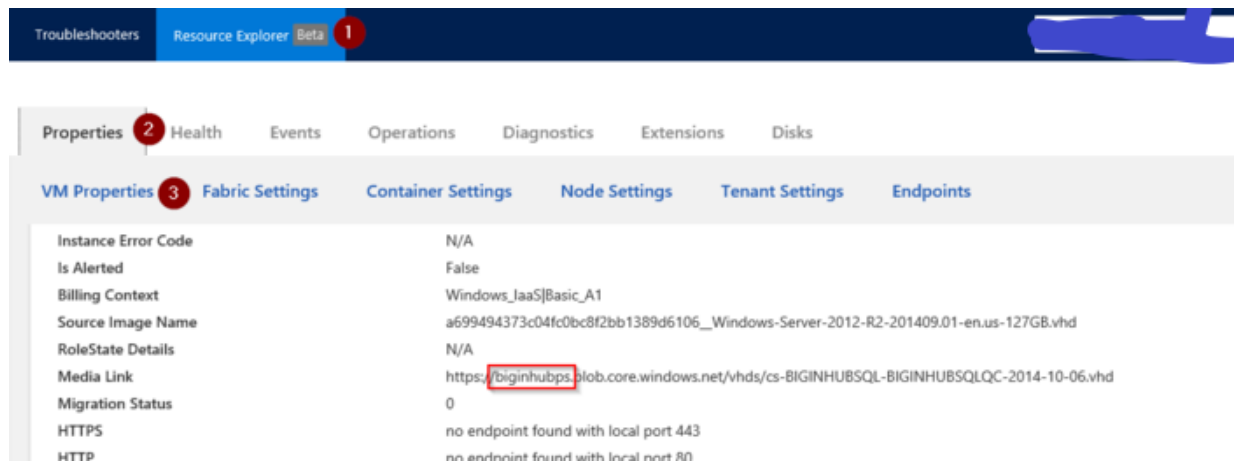
2. If the OS Disk is encrypted, then proceed to [Unlock an encrypted disk](#)
3. Now proceed to do a copy of the OS disk, this will help in case of a rollback for recovery or RCA in a later stage
4. Power the machine down and once it is stopped de-allocated to do the copy.
5. Create a snapshot
 1. If the **disk is unmanaged**, this could be done by using [Microsoft Azure Storage Explorer](#) or [Azure Powershell](#)

1. Using [Microsoft Azure Storage Explorer](#)

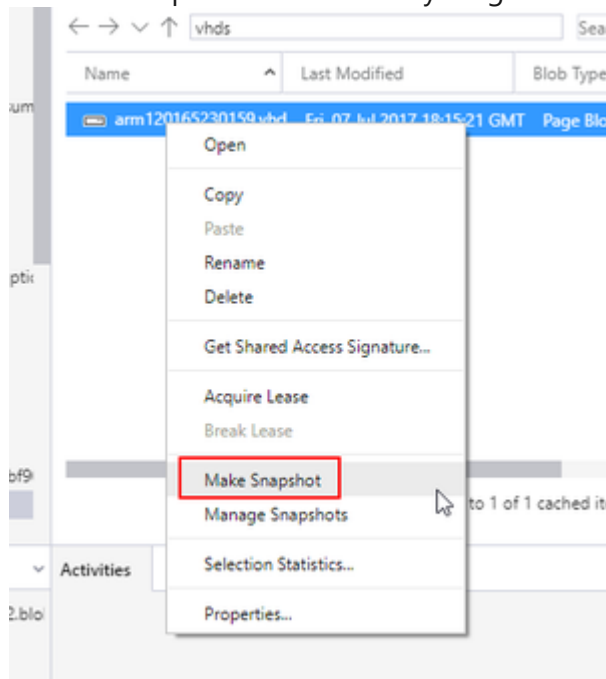
1. Once the customer download the tool, proceed to add the Azure account details so you can access the storage accounts
2. Click on **Add Account Settings** then ***Add an account...***



3. Go to the storage account where the OS disk is, you can see this on ASC under *Resource Explorer* on *Properties* in the *VM Properties* card



4. Create a snapshot of this disk by a right click over the disk and select *Make Snapshot*



2. Using [Azure Powershell](#)

1. You can follow [How to Clone a disk using Powershell](#)

2. If the **disk is managed**, use Azure portal to take a snapshot

1. Sign in to the Azure portal.
2. Starting in the upper-left, click New and search for snapshot.
3. In the Snapshot blade, click Create.
4. Enter a Name for the snapshot.
5. Select an existing Resource group or type the name for a new one.
6. Select an Azure datacenter Location.
7. For Source disk, select the Managed Disk to snapshot.
8. Select the Account type to use to store the snapshot. We recommend Standard_LRS unless you need it stored on a high performing disk.
9. Click Create.

ONLINE Troubleshooting

ONLINE Approaches

Please be aware that the Serial Console Feature option will be today possible in:

1. Azure Resource Management VMs (ARM)
2. Public cloud

Whenever you are in a middle of a troubleshooting and you find the step <<<<<**INSERT MITIGATION**>>>>, proceed to replace that steps with the mitigation section that you need referred below

[Using Windows Admin Center \(WAC\)](#)

▼ Click here to expand or collapse this section

WAC is supported on ARM VMs running Windows Server 2016 or later (not Win10 or any other Windows client version, and not 2012R2/2012/2008R2 versions of Windows Server

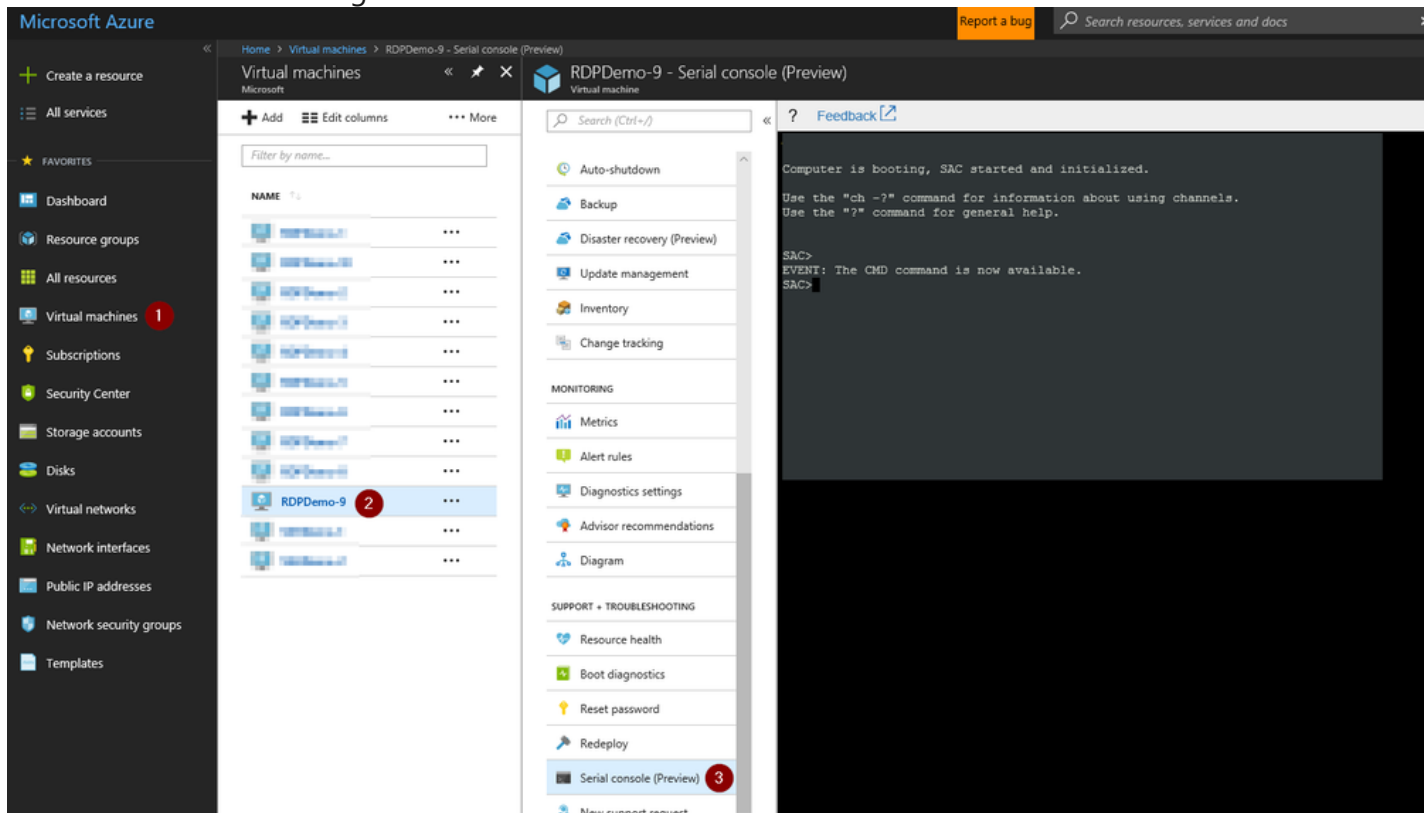
See [How To Access Thru Windows Admin Center](#)

Using [Serial Console Feature](#)

▼ Click here to expand or collapse this section

Applies only for ARM VMs

1. In the portal on the VM blade you will have an extra option called *Serial Console* click there
2. If EMS was enabled on the Guest OS, SAC will be able to connect successfully and then you will have a screenshot as the following:



1. If EMS does not connect, it means the Guest OS was not setup to use this feature:
 1. If the issue that you have will repro on a restart and if the customer is OK to enable this feature, you enable this feature. For details refer to [Serial Console](#) on the *How to enable this feature*

2. If on the other hand, the issue will not repro on a restart, then you will need to skip this section and go on normally with the **OFFLINE troubleshooting** section
3. Create a channel with a CMD instance. Type `cmd` to start the channel, you will get the name of the channel

```
SAC>cmd
The Command Prompt session was successfully launched.
SAC>
EVENT: A new channel has been created. Use "ch -?" for channel help.
Channel: Cmd0001
SAC>
```

4. Switch to the channel running the CMD instance

```
ch -si 1
SAC>ch -si 1
```

5. Once you hit enter, it will switch to that channel

```
? Feedback
Name: Cmd0001
Description: Command
Type: VT-UTF8
Channel GUID:
Application Type GUID:
Press <esc><tab> for next channel.
Press <esc><tab>0 to return to the SAC channel.
Use any other key to view this channel.
```

6. Hit enter a second time and it will ask you for user, domain and password:

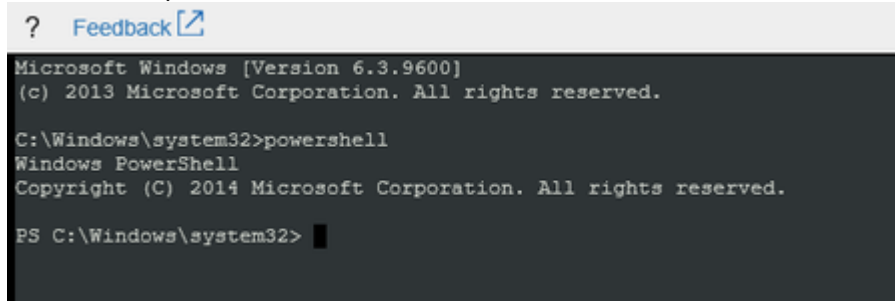
```
? Feedback
Please enter login credentials.
Username:
```

1. If the machine has connectivity, you could use either local or domain IDs. If you want to use a local ID, for domain just add the hostname of the VM
 2. If the machine doesn't have connectivity, you could try to use domains IDs however this will work if only the credentials are cached on the VM. In this scenario, it is suggested to use local IDs instead.
7. Once you add valid credentials, the CMD instance will open and you will have the prompt for you to start your troubleshooting:

```
? Feedback
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.
C:\Windows\system32>
```

1. At this point, you can do your troubleshooting in bash (CMD) or else, you could start a powershell instance:

1. To launch a powershell instance, run `powershell`

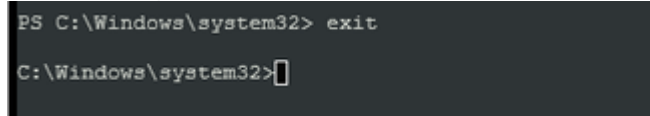


```
? Feedback
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Windows\system32>powershell
Windows PowerShell
Copyright (C) 2014 Microsoft Corporation. All rights reserved.

PS C:\Windows\system32>
```

2. To end the powershell instance and return to CMD, just type `exit`



```
PS C:\Windows\system32> exit

C:\Windows\system32>
```

8. <<<<INSERT MITIGATION>>>>

Using [Remote Powershell](#)

- Click here to expand or collapse this section

Using [Remote CMD](#)

- Click here to expand or collapse this section

Using [Custom Script Extension](#) or [RunCommands Feature](#)

- Click here to expand or collapse this section

Using [Remote Registry](#)

- Click here to expand or collapse this section

Using [Remote Services Console](#)

- Click here to expand or collapse this section

ONLINE Mitigations

1. Open a CMD instance and query the service that hanging to check its current state:

```
sc query msmq
```

2. Change its startup type to *Manual*

```
sc config msmq start=demand
```

3. Check the service startup type to ensure your change was successfully:

```
sc qc msmq
```

4. Check if there's any other service with *Start_Pending* state and if it is 3rd party change its startup type to *manual* as well

```
sc query | more
```

5. Restart the VM

1. Exist from the CMD instance by typing `exit` then twice Enter key to go back to EMS
2. Now restart from EMS by typing `restart`

OFFLINE Troubleshooting

For CRP machines, at any point that you follow end to end any of the OFFLINE mitigation and that doesn't work

OFFLINE Approaches

Whenever you are in a middle of a troubleshooting and you find the step <<<<<**INSERT MITIGATION**>>>>, proceed to replace that steps with the mitigation section that you need referred below.

Information

For more in-depth information on these operations, please review: [Windows Partitions in Non-Boot Scenarios RDP-SSH](#).

Using [Recovery Script](#)

► Click here to expand or collapse this section

Using [OSDisk Swap API](#)

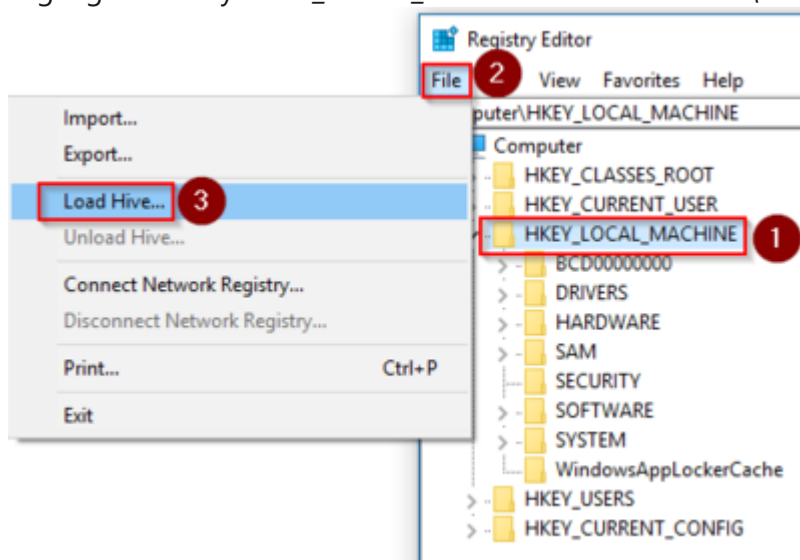
► Click here to expand or collapse this section

Using *VM Recreation scripts*

► Click here to expand or collapse this section

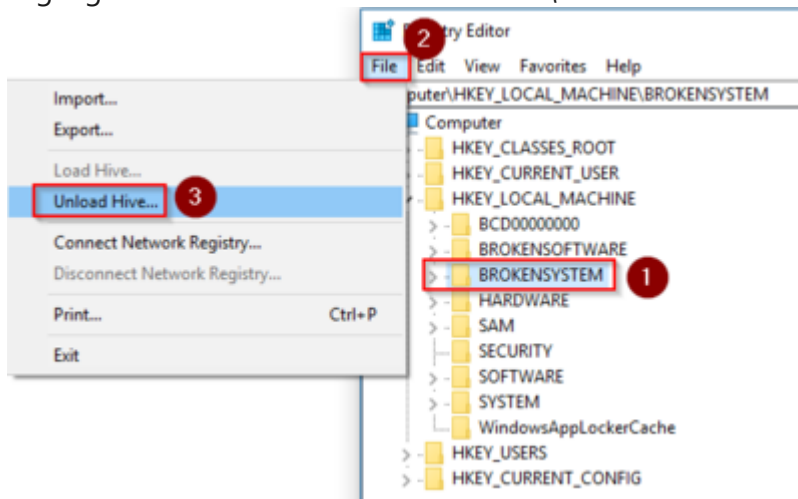
OFFLINE Mitigations

1. Before doing any change please create a copy of the folder `\windows\system32\config` in case a rollback on the changes is needed
2. On the troubleshooting machine, open the registry editor *REGEDIT*
3. Highlight the key *HKEY_LOCAL_MACHINE* and select *File\Load Hive* from the menu



4. Browse up to the file `\windows\system32\config\SYSTEM`

5. When you hit open it's going to ask for a name, put *BROKENSYSYSTEM* and then expand *HKEY_LOCAL_MACHINE* and you will see an extra key called *BROKENSYSYSTEM*. For this troubleshooting, we are mounting these trouble hives as *BROKENSYSYSTEM*
6. Check which ControlSet is the machine booting from. You will see its key number in *HKLM\BROKENSYSYSTEM\Select\Current*
7. Change the MSMQ service to manual
HKLM\BROKENSYSYSTEM\Controlset00x\Services\msmq\Start ==> From 2 to 3
8. Unmount SYSTEM Hives
 - Highlight *BROKENSYSYSTEM* and select *File\Unload Hive* from the menu



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


After work - Cleanup

If you are uncertain that we may need this snapshot by the end of this case for RCA purposes, then just leave it.

1. If the issue is already fix and no further RCA analysis is needed, then proceed to remove the OS Disk backup we created at the beginning of the case
 1. If the **disk is managed** using the portal so the snapshot section and select the snapshot you created previously as a backup.
 2. If the **disk is unmanaged** then
 1. If this is an CRP Machine - ARM, then no further action is required
 2. If this is an Classic - RDFE machine, then
 1. Check the storage account where the OS disk of this machine is hosted using [Microsoft Azure Storage Explorer](#) ☑ right click over the disk and select *Managed Snapshots*
 2. Proceed to delete the snapshot of the broken machine
2. If any of the above steps solved the issue, then the Message Queueing service needs to be reinstalled
 1. Uninstall it from Windows Roles and Features

2. Reboot the VM
 3. Install it again
3. If the customer is interested in further analysis of what is wrong with the service, a MSMQ Logging can be enabled
1. Cut a new problem with the following details:
 - Product: **Windows Svr 2008 R2 Datacenter** or **Windows Svr 2012 R2 Datacenter** or **Windows Svr 2016 Datacenter** as appropriate
 - Support topic: **Routing Windows V3\Application technologies (such as COM, COM+, or DTC) and compatibility\Message Queueing (MSMQ)**
 2. And transfer it to BizTalk queue

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 RDP-SSH SMEs  for faster assistance.</p> <p>Make sure to use the Ava process for faster assistance.</p>	<p>Use the RDP-SSH Feedback form to submit detailed feedback on improvements or new content ideas for RDP-SSH.</p> <p>Please note 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 RDP-SSH Kudos form to submit kudos on the page. Kudos will help us improve our wiki content overall!</p> <p>Please note the link to the page is required when submitting kudos!</p>