Server Unexpectedly Closed the Network Connection_RDP SSH

Last updated by | Maria Radu | Oct 16, 2022 at 11:15 PM PDT

Tags

cw.TSG cw.RDP-SSH

Contents

Symptoms

1. You cannot SSH into the server as when you try, SSH responds but reject the connection and drop with the following error:

```
Server unexpectedly closed the network connection
```

2. The VM is setup to authenticate using a certificate key

3. Pull the inspect Iaas log (/var/log) and look for the file **auth.log** and you'll find something like described below:

```
@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
Jan 23 10:57:27 VM01 sshd[35577]: error: @         WARNING: UNPROTECTED PRIVATE KEY FILE!          @
Jan 23 10:57:27 VM01 sshd[35577]: error: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
Jan 23 10:57:27 VM01 sshd[35577]: error: Permissions 0777 for '/etc/ssh/ssh_host_ecdsa_key' are too o
Jan 23 10:57:27 VM01 sshd[35577]: error: It is required that your private key files are NOT accessibl
Jan 23 10:57:27 VM01 sshd[35577]: error: This private key will be ignored.
Jan 23 10:57:27 VM01 sshd[35577]: error: key_load_private: bad permissions
Jan 23 10:57:27 VM01 sshd[35577]: error: Could not load host key: /etc/ssh/ssh_host_ecdsa_key
```

Note: If you have this symptom then go to RCA1 and proceed with the mitigations 1,2,3 and 4

Root Cause Analysis

Customer has set too permissive rights on the file /etc/ssh/ssh_host_ecdsa_key.

References

- How to use SSH keys with Windows on Azure
- Quick steps: Create and use an SSH public-private key pair for Linux VMs in Azure
- Generate and use a SSH Key with PuTTY and an Azure Linux VM
- Linux Escalation doc

Tracking close code for this volume

Root Cause	Product	Support Topic	Cause Tracking code	Bug
1	*Azure Virtual Machine – Linux*	*Routing Azure Virtual Machine V3\Cannot Connect to my VM\Failure to connect using RDP or SSH port*	*Root Cause - Windows Azure\Compute\Virtual Machine\Guest OS - Linux\SSH Service\SSH-Client SSH Key Issues*	

To know how to flag a bug on a case please refer to How to do Proper Case Coding

Refresher / Training Template

- For the purpose of training or following along with this TSG, you can use the following link to deploy a VM with this scenario built-in. You will need to enable JIT for the VM. This lab is not to be shared with customers.

  Deploy to Azure

Customer Enablement

- https://learn.microsoft.com/en-us/troubleshoot/azure/virtual-machines/detailed-troubleshoot-ssh-connection#source-1-ssh-client-computer
- https://learn.microsoft.com/en-us/troubleshoot/azure/virtual-machines/troubleshoot-ssh-permissions-too-open

Mitigation

Mitigation 1

Create a custom script and execute it using the ***Custom Script for Linux*** extension on the portal:

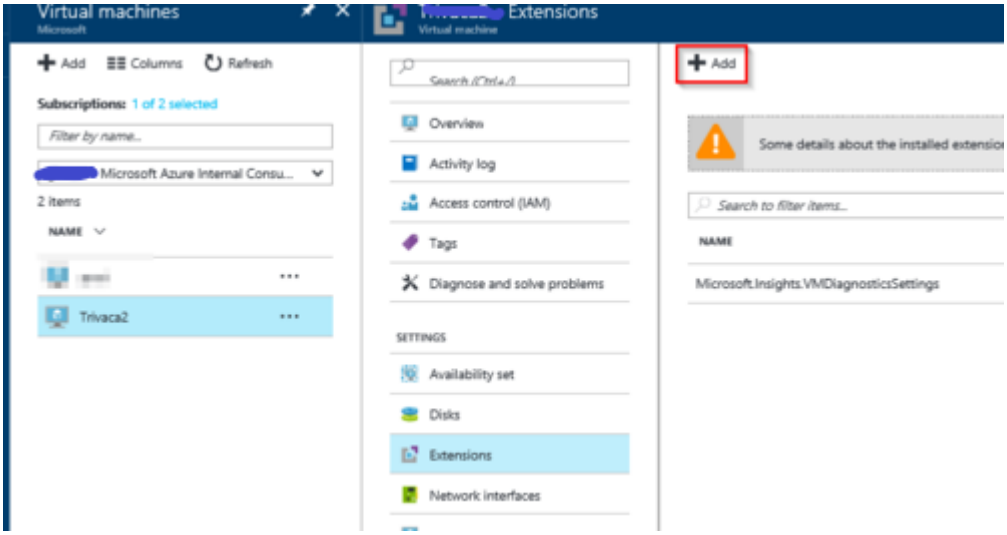
1. Create a file called **script.sh** in your desktop using notepad

2. Paste this content to the file:

```
#!/bin/bash
sudo chmod -R 600 /etc/ssh
sudo chmod 700 /etc/ssh/ssh_host*key
sudo chmod 644 /etc/ssh/ssh_host*key.pub
sudo chmod 640 /etc/ssh/sshd_config
```

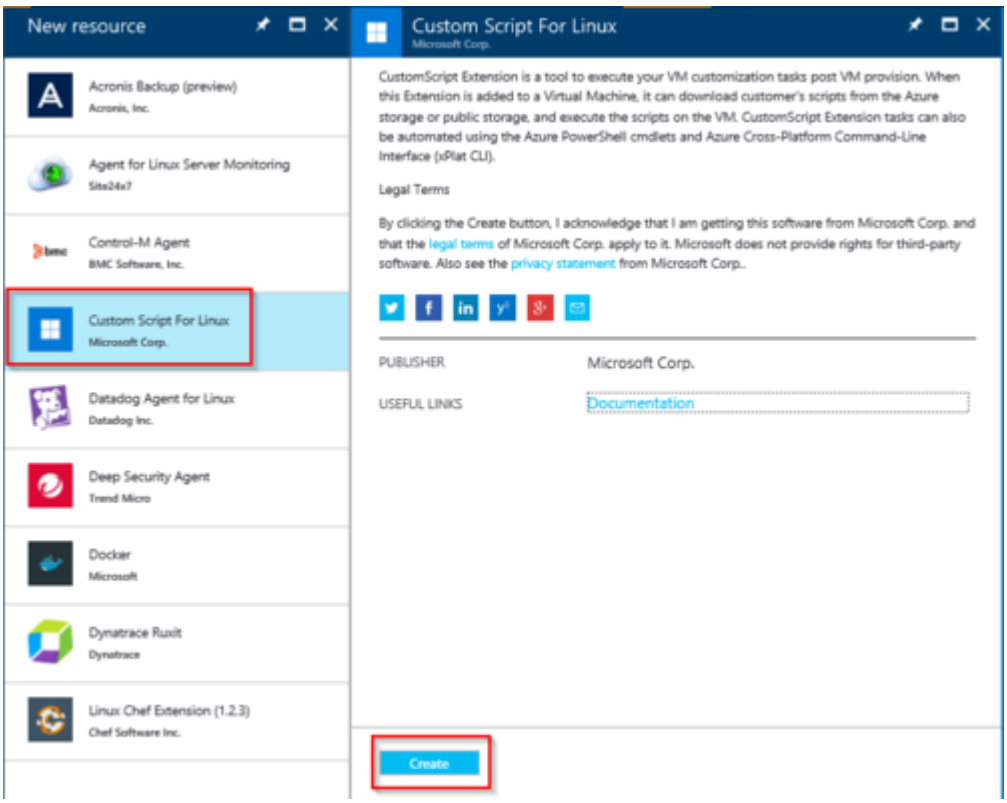
3. Save the file

1. Navigate to the Azure Portal
2. Click the VM you are having issues
3. Click Extensions
4. Click Add

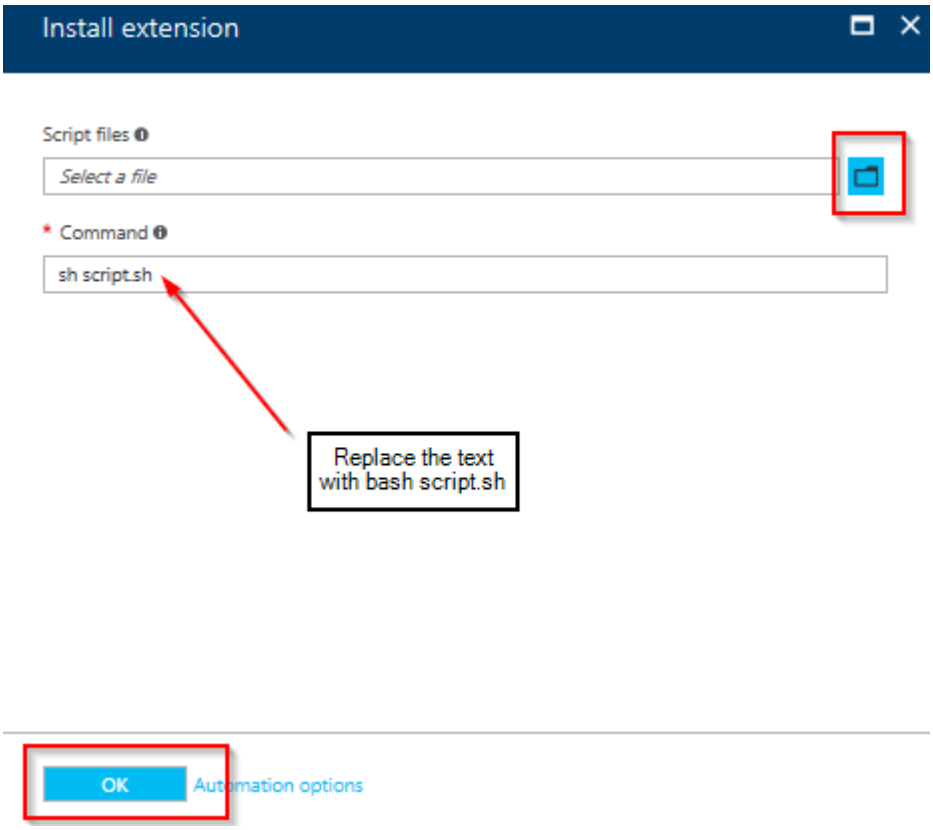


5. Select “Custom Script for Linux”

6. Click Create



7. Inside the box “Script Files” click the icon to browse and open the file you created on step (1)
8. Inside the box “Command” replace the text with bash script.sh
9. Click OK



Mitigation 2

Another option would be to use a temp VM to set the right permissions on the /etc/ssh/ssh_host_ecdsa_key' file

1. From now on lets refer to the following naming convention
   - **A** = Original VM (Inaccessible VM)
   - **B** = New VM (New Recovery VM) which needs to be the same version as the impacted VM or at least the same distribution
2. Stop VM **A** via Azure Portal. For Resource Manager VM, we recommend to save the current VM information before deleting
   - Azure CLI:
     ```
     azure vm show ResourceGroupName LinuxVmName > ORIGINAL_VM.txt
     ```
   - Azure PowerShell:
     ```
     Get-AzureRmVM -ResourceGroupName $rgName -Name $vmName
     ```
3. Before deleting the VM, ensure that you have exported its configuration:
   - Recreate an ARM Virtual Machine
   - Recreate an RDFE Virtual Machine
4. Delete VM **A** BUT select ***keep the attached disks***

   NOTE: The option to keep the attached disks is only available for classic deployments, for Resource Manager deleting a VM will always keep its OSDisk by default.

5. Once the lease (it could take 1-3mins) is cleared, attach the Data Disk from **A** to VM **B** via the Azure Portal, Virtual Machines, Select B, Attach Disk
6. On VM **B** eventually the disk will attach and you can then mount it.
7. Locate the drive name to mount, on VM **B** look in relevant log file note each Linux is slightly different.
   - **For Ubuntu/debian**:
     ```
     grep SCSI /var/log/kern.log
     ```
   - **For Centos/Suse/Oracle/Redhat**:
     ```
     grep SCSI /var/log/messages
     ```
8. Mount the drive in a mountpoint like /recovery. The example below is for broken disk recognized as /dev/sdc1

   ```
   sudo mkdir /recovery
   mount /dev/sdc1 /recovery
   ```

9. Now proceed to change the ACLs over the SSH key

   ```
   cd /recovery/etc/ssh/
   sudo chmod -R 600 /etc/ssh
   sudo chmod 700 /etc/ssh/ssh_host*key
   sudo chmod 644 /etc/ssh/ssh_host*key.pub
   sudo chmod 640 /etc/ssh/sshd_config
   ```

10. Unmount the drive

    ```
    umount /dev/sdc1
    ```

Note: Ensure that you are not inside /recovery before unmounting otherwise, the command will fail.

11. Detach the disk and recreate the VM

Need additional help or have feedback?

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