ORACLE

Troubleshooting Windows Instances via Oracle OCI VM Console Connection

Sep 2024, Version 1.1

Sharath Kumar
EMEA Cloud Specialist Engineer - Compute

Table of contents

NB: **Avoid directly doing copy/paste from this document since it could include hidden characters resulting into command lines failures.**

Overview

You can remotely troubleshoot malfunctioning instances using console connections. This is useful in scenarios such as:

An imported or customized image that does not complete a successful boot.

A previously working instance that stops responding.

Methods

There are two types of instance console connections:

Serial console connections

VNC console connections

Serial Console Connection

Use the serial console connection to remotely troubleshoot instance access issues or to recover from a lost key or password.

For Linux Instances:

Cloud Shell allows you to create a console connection quickly and easily.

When connecting to a Linux instance, you do not need to enter a username or password. If the instance is functional and the connection is active, the serial output will appear in your console upon restarting the instance.

For Windows Instances:

Create a local connection to check the instance status. Note that the output to the serial console is limited on Windows unless Special Administration Console (SAC) is enabled.

Enabling SAC on Windows Instances

Connect to your instance and run the following commands in the command prompt:

Enable SAC:

cmd

bcdedit /ems {current} on

bcdedit /emssettings EMSPORT:1 EMSBAUDRATE:115200

Enable the Boot Menu:

cmd

bcdedit /set {bootmgr} displaybootmenu yes

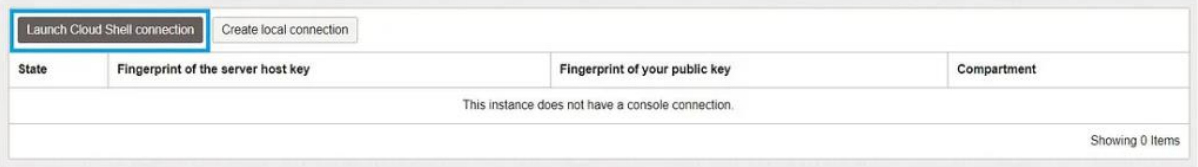
bcdedit /set {bootmgr} timeout 15

bcdedit /set {bootmgr} bootems yes

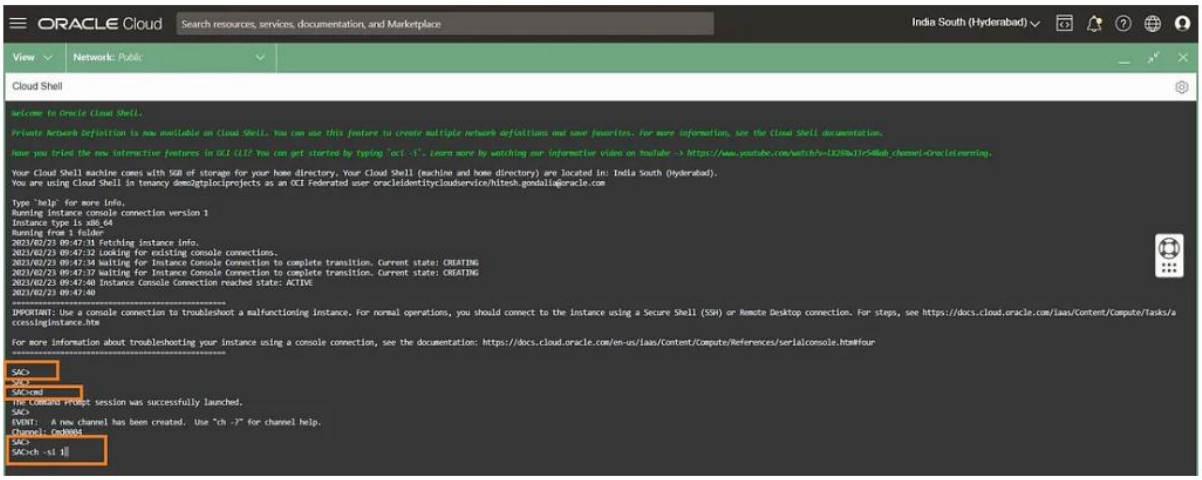
Reboot the Instance:

cmd

shutdown -r -t 0



Establishing a Console Connection



Creating Console Connection

After enabling SAC, you can create a console connection:

Command References:

Type SAC> to access the SAC prompt.

To launch a Command Prompt session, type:

cmd

SAC>cmd

You will see:

The Command Prompt session was successfully launched.

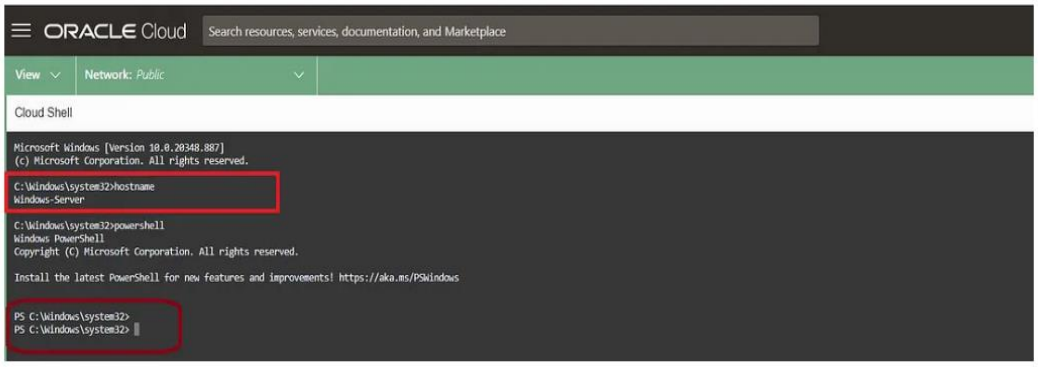
SAC>

Channel Creation:

A new channel will be created. You can use the command:

cmd

SAC>ch -si 1



Login Credentials

You can now use your favourite PowerShell commands or any Windows command line utility to manage your system.

VNC Console Connection

For instances where the console connection fails, you may refer to the following troubleshooting steps:

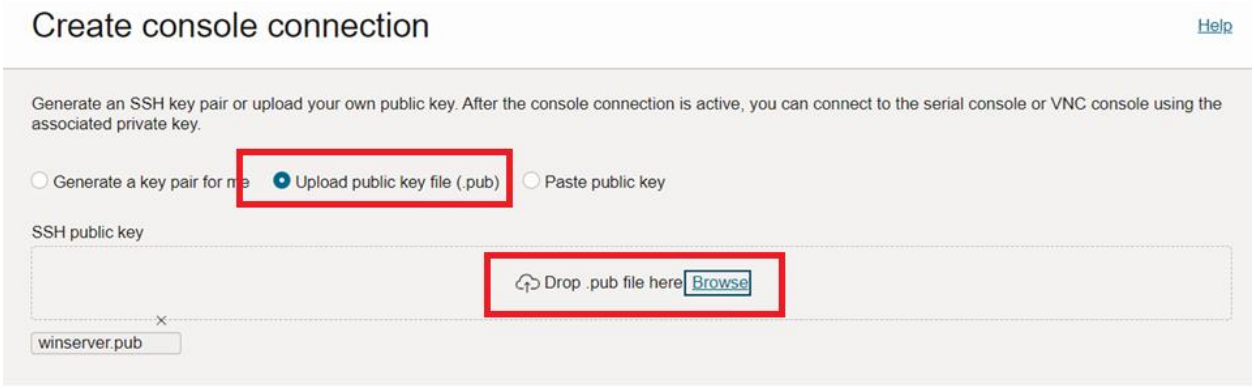
Important Note:

Ensure you use the PPK format private key to create the VNC console connection.

Ensure that ports 443 and 3389 are open in your network security group.

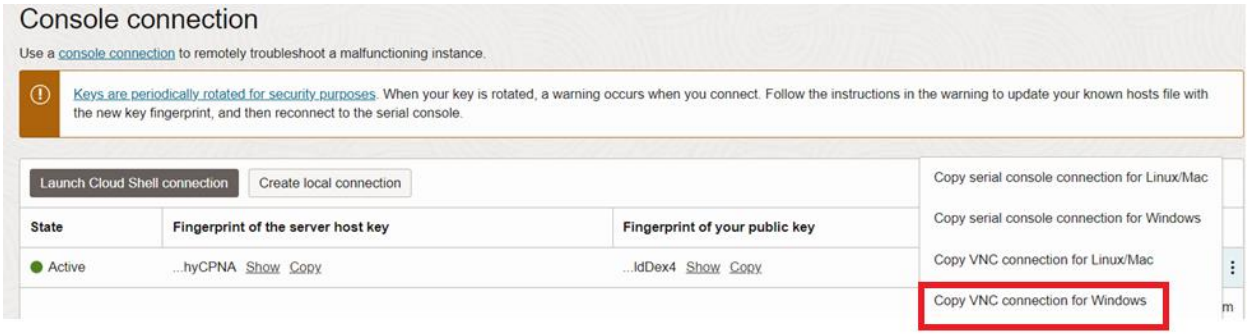
Creating a VNC Console Connection

Click on Create Console Connection and upload the public key saved from PuttyGen.



Reference Steps:

Click on the three dots on the right side to access options.

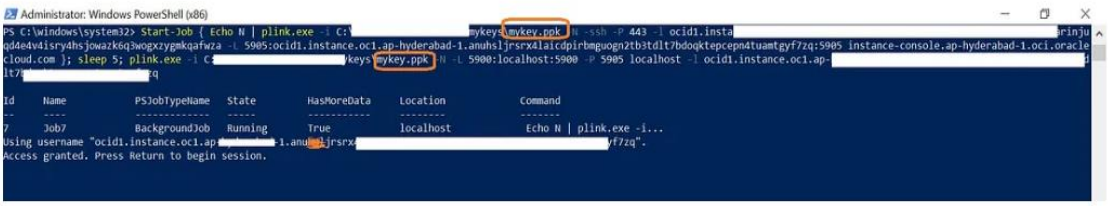


Replace Private Key Path:

Copy the following command into Notepad++ and replace the private key path:

powershell

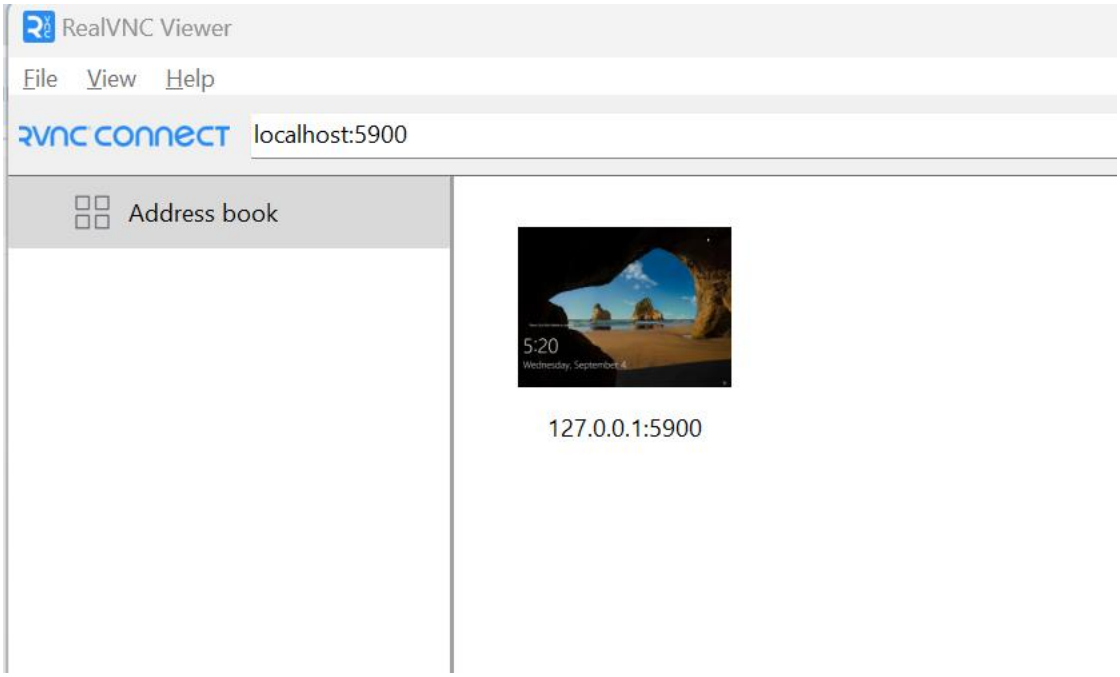
$env:homedrive$env:homepath\oci\console.ppk

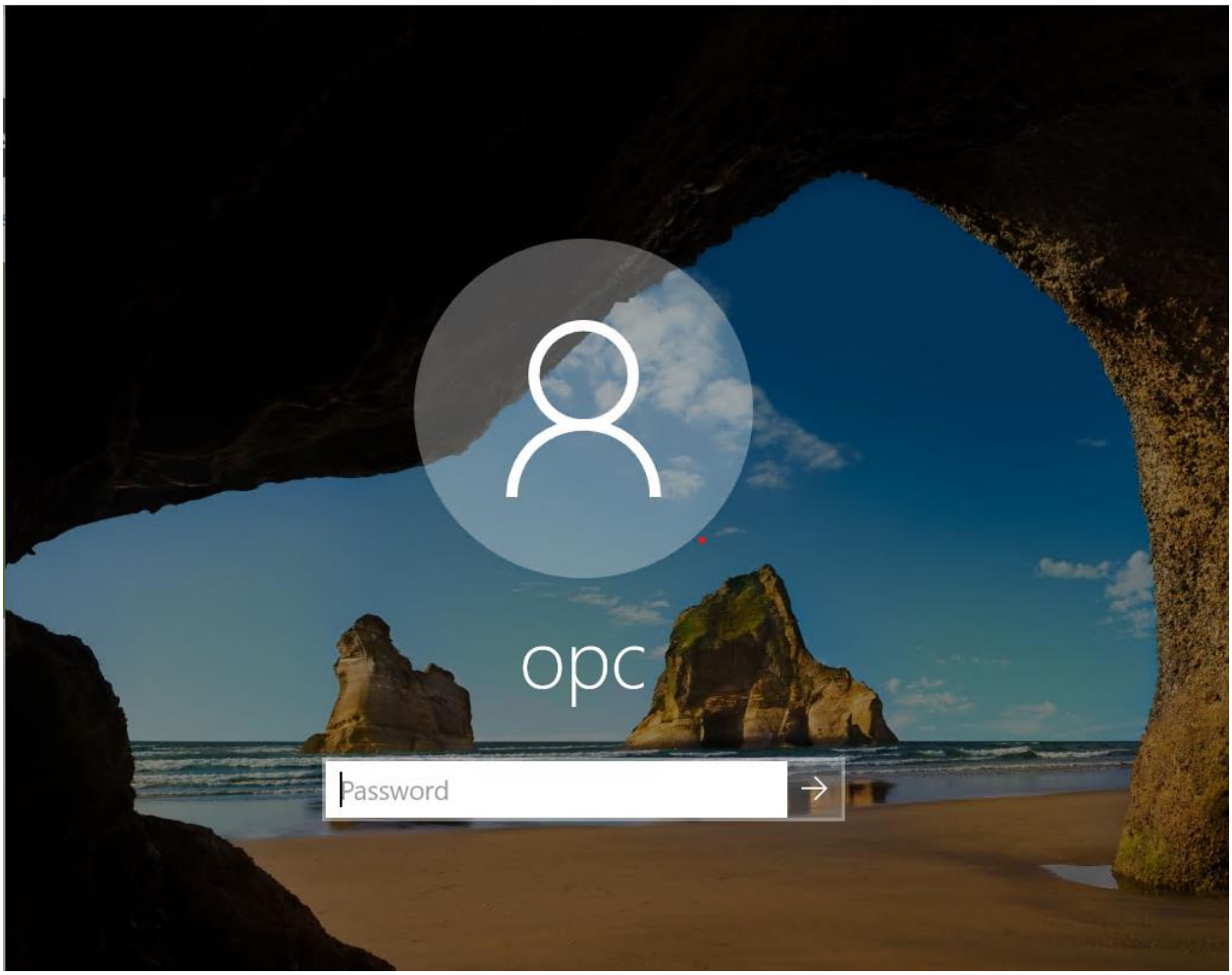


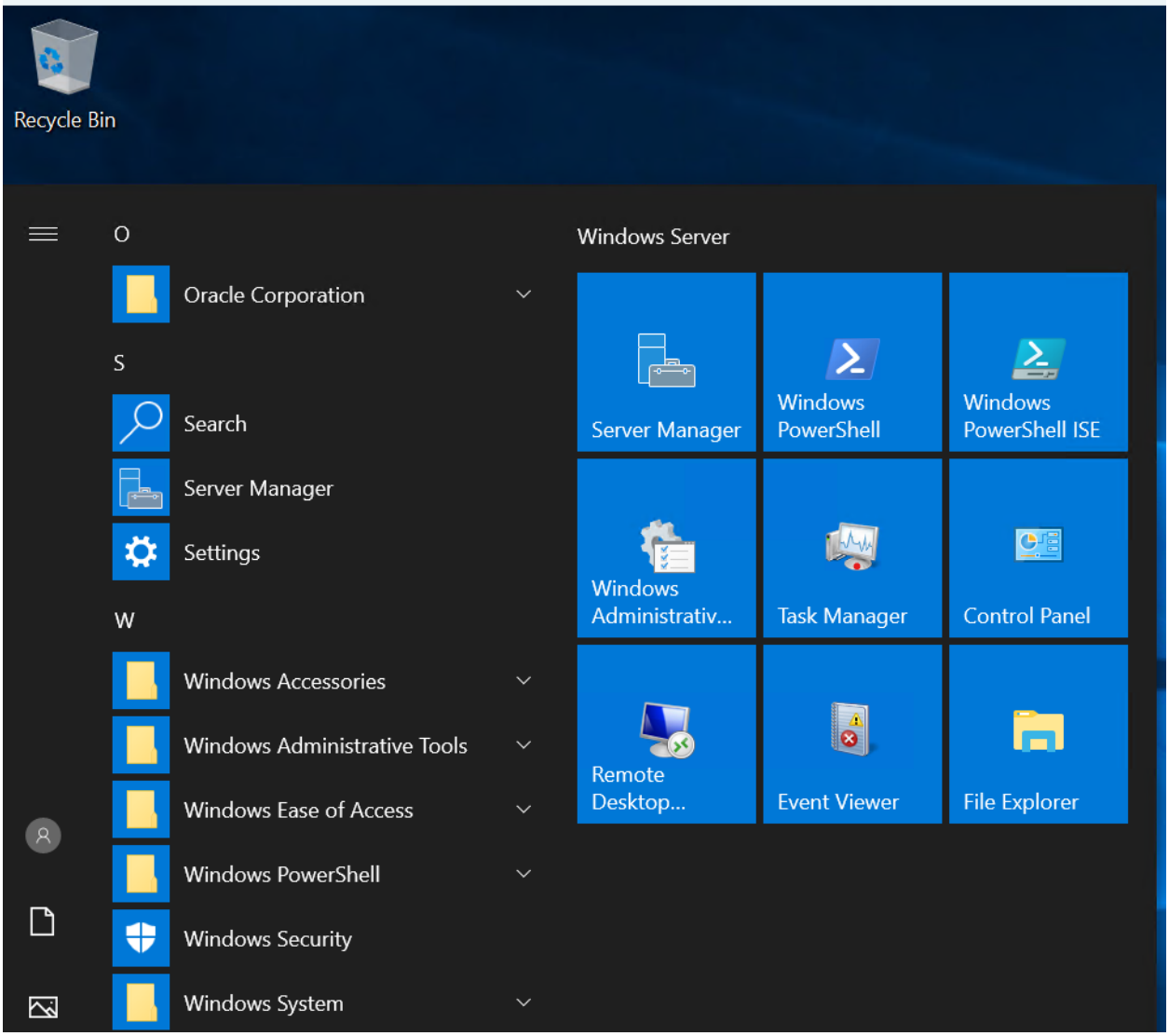
Open PowerShell as Administrator.

Using REAL VNC Viewer:

Open the REAL VNC Viewer and connect over localhost:5900.







VNC Access to the VM Host

- To send a Ctrl + Alt + Del command, click on **Function + F8** and select the appropriate option from the menu.

Conclusion

By utilizing both serial console and VNC console connections, you can effectively troubleshoot instances in Oracle OCI. Ensure to follow the provided steps for successful connections and management.