

OCI Compute - Windows Console Connection Fails: FATAL ERROR: Network error

June 2025, Version 1.0

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Public

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Summary

This document provides a structured approach to resolve the “**FATAL ERROR: Network error: Connection refused**” issue encountered when connecting to a Windows instance in OCI Compute using a console connection and VNC Viewer.

Scope

Intended for troubleshooting Windows VM access issues using OCI console connection methods. This guide applies to instances where VNC or serial console fails due to SSH tunneling or key mismatches.

Error Message

You may see this error in PowerShell when attempting a VNC connection:

FATAL ERROR: Network error: Connection refused

This typically happens when the private/public key pair is incorrect, malformed, or not matching the key used in the OCI console connection setup.

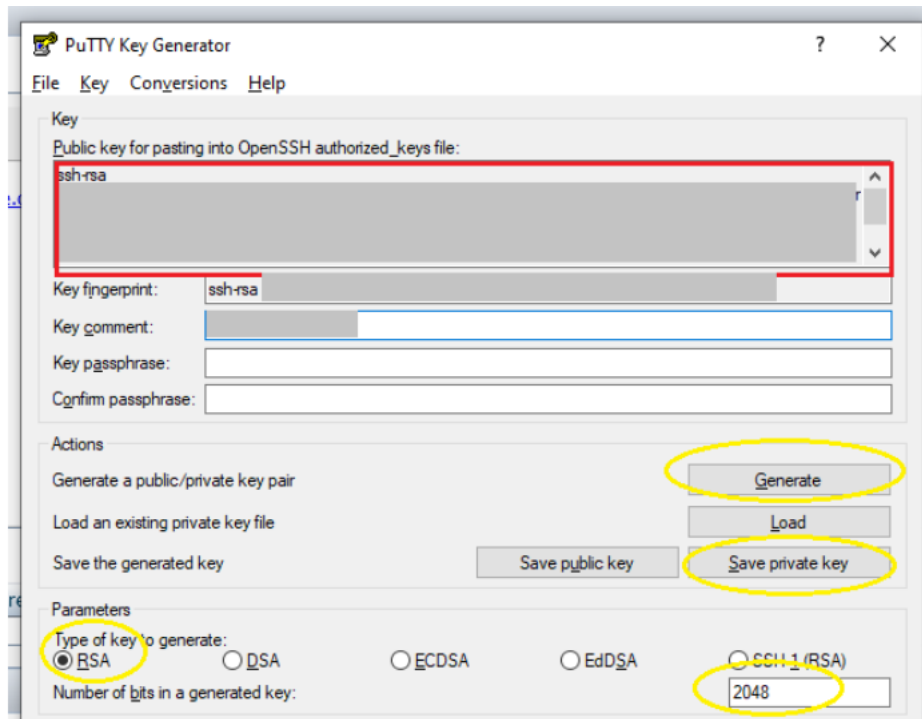
Cause of the Issue

The VNC tunnel relies on proper SSH key configuration. If the public/private key pair isn’t generated correctly or referenced accurately in the connection string, the SSH tunnel will fail, resulting in a misleading network error.

Solution Steps

Generate Key Pair

1. Open **PuTTYgen**

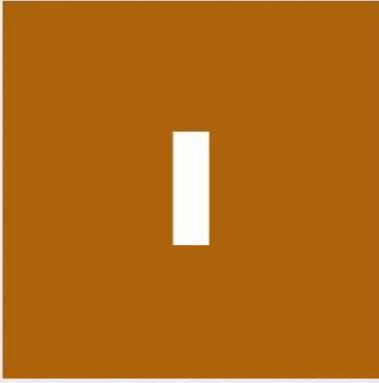


2. Set Key Type: **RSA**, Bits: **2048**.
3. Click **Generate**.
4. Save the **private key (.ppk)** file.
5. Copy the **entire public key string** and save it in Notepad.

Create Local Console Connection

1. Go to the **OCI Console > Compute > Instance > Console Connections**.

Compute » Instances » Instance details



Win2019

STOPPED

Start Stop Reboot **Terminate** More actions ▼

Instance information Shielded instance Maintenance

General information

Availability domain: AD-1

Fault domain: FD-3

Resources

- Metrics
- Quick actions
- Attached block volumes
- Attached VNICs
- Boot volume
- Console connection**
- Run command
- Work requests

Console connection

Use a [console connection](#) to remotely troubleshoot a malfunctioning instance.

ⓘ [Keys are periodically rotated for security purposes.](#) When your key is rotated, a warning fingerprint, and then reconnect to the serial console.

Launch Cloud Shell connection Create local connection

State	Fingerprint of the server host key
● Active	...hyCPNA Show Copy

2. Click **Create Console Connection**.
3. Paste the **public key** from Step 5.1.
4. Click **Create Console Connection**.

Resources

- Metrics
- Quick actions
- Attached block volumes
- Attached VNICs
- Boot volume
- Console connection**
- Run command
- Work requests
- OS Management
- Custom logs
- Console history

Console connection

Use a [console connection](#) to remotely troubleshoot a malfunctioning instance.

ⓘ [Keys are periodically rotated for security purposes.](#) When your key is rotated, a warning fingerprint, and then reconnect to the serial console.

Launch Cloud Shell connection **Create local connection**

State	Fingerprint of the server host key

Create console connection

Generate an SSH key pair or upload your own public key. After the console connection is active, you can use the private key.

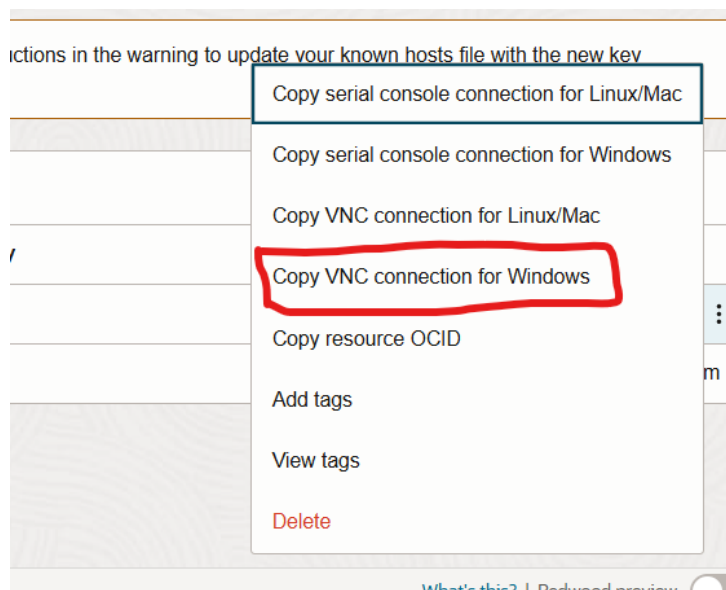
☐ Generate a key pair for me
 ☐ Upload public key file (.pub)
 ☒ Paste public key

SSH public key

Example: ssh-rsa AAAAB3Nza...NWap6Prb ssh-key-2021-01-27 [See all supported key types](#)

Copy VNC Connection Command

1. After the console connection is created, click the **three dots**.
2. Choose **"Copy VNC Connection for Windows"**.



3. Paste the command into Notepad.

Sample Format:

```
Start-Job { Echo N | plink.exe -i <key_path> -N -ssh -P 443 -l <OCID> -L 5905:<OCID>:5905 <OCID> }; sleep 5; plink.exe -i <key_path> -N -L 5900:localhost:5900 -P 5905 localhost -l <OCID>
```

Edit VNC Connection Command

1. Open the copied command in Notepad.
2. Replace \$env:homedrive\$env:homepath\oci\console.ppk with the full path to your .ppk file.
Example: -i C:\Users\Admin\MyKeys\console.ppk

Run VNC Command in PowerShell

1. Open **PowerShell as Administrator**.
2. Paste and run the full modified VNC command.

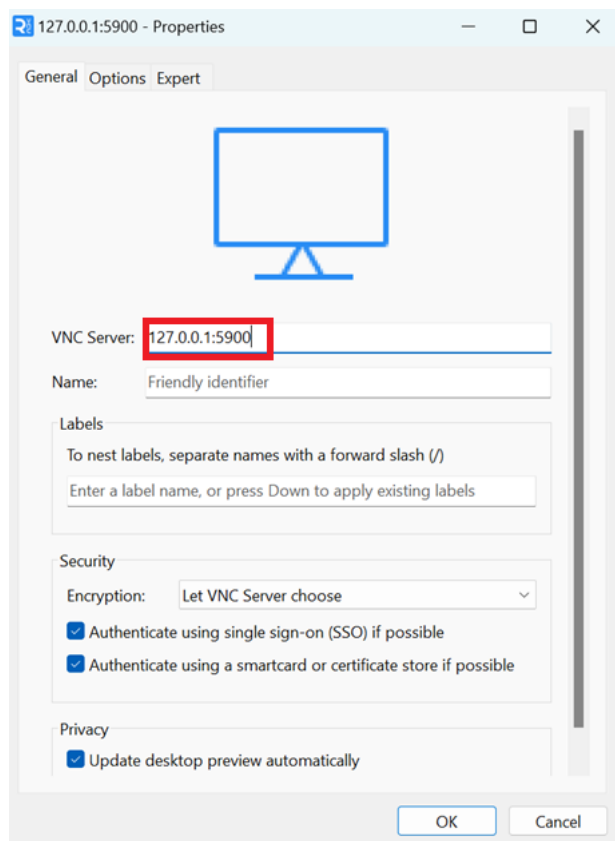
```
Administrator: Windows PowerShell

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWin
dows

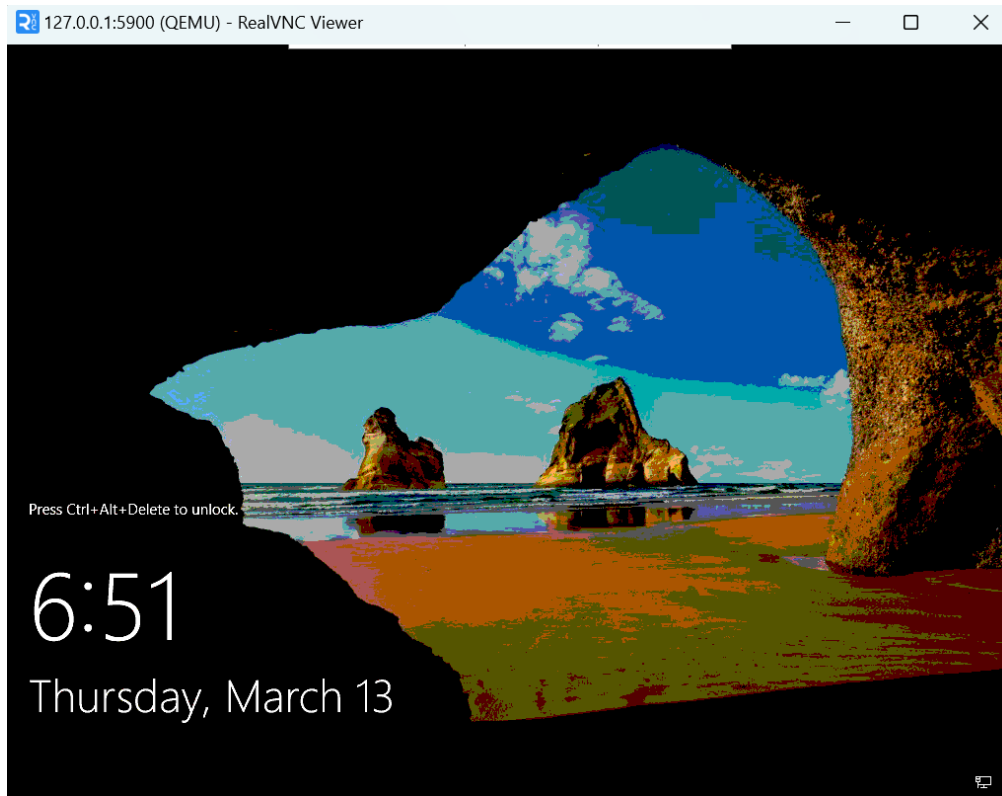
PS C:\WINDOWS\system32> Start-Job { Echo N | plink.exe -i <key_path> -N -ssh -P 443 -
L <OCID> -L 5905:<OCID>:5905 <OCID> }; sleep 5; plink.exe -i <key_path> -N -L 5900:lo
calhost:5900 -P 5905 localhost -l <OCID>_
```

Connect Using VNC Viewer

1. Launch **VNC Viewer**.
2. Enter: localhost:5900 or 127.0.0.1:5900



3. Connect. Use **Ctrl+Alt+Del** on top panel to trigger Windows login screen.



Best Practices & Notes

- Always validate your private key format and path.
- Use **PuTTYgen** to avoid key mismatches.
- Ensure **Plink** and **VNC Viewer** are installed.
- Run PowerShell as Administrator to avoid permission issues.

References

- [OCI Documentation - Console Connections](#)
- [PuTTY Key Generation](#)
- [VNC Viewer Download](#)

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