

OCI Web shell / Cloud shell

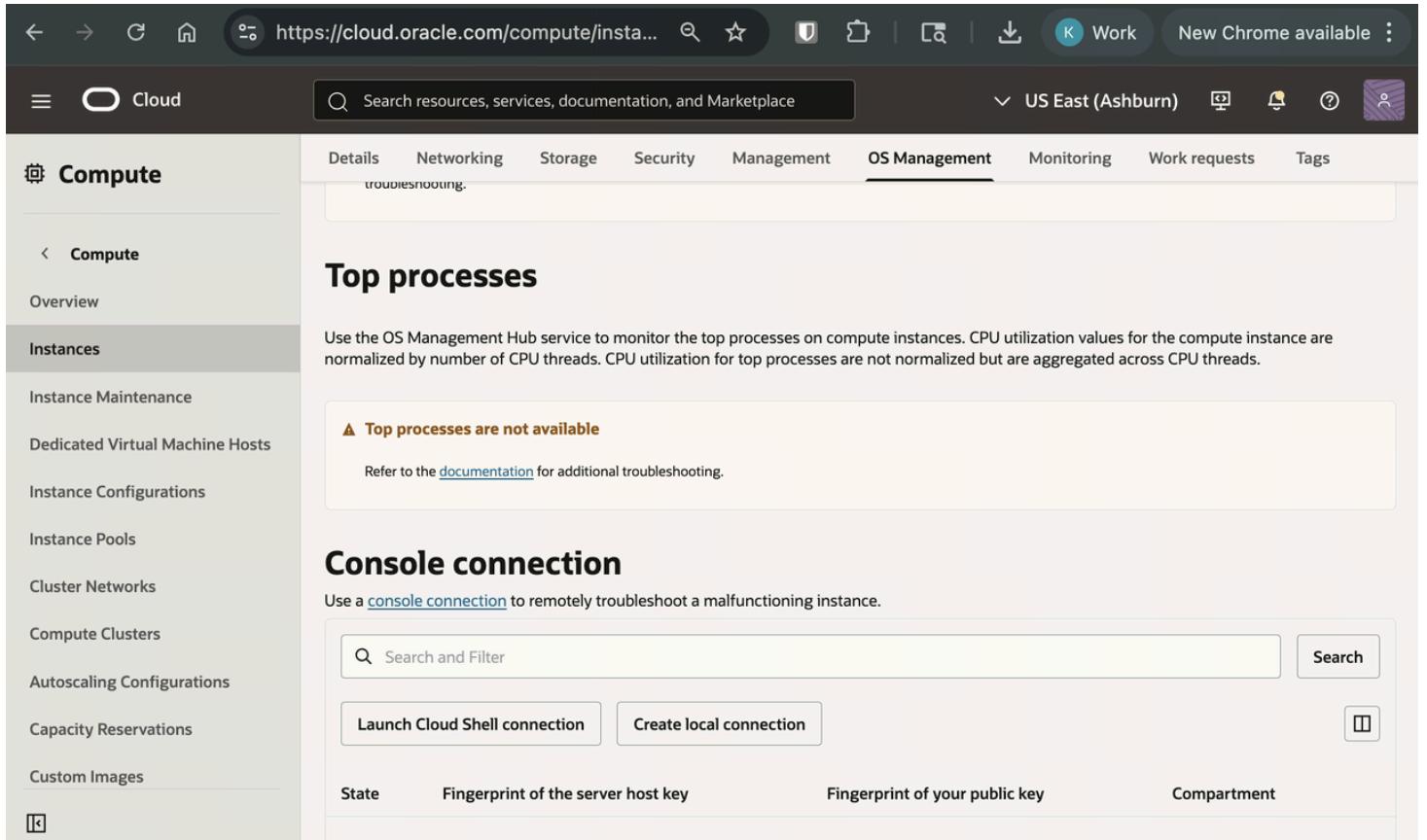
 Kenney He | Modified Today

Process to access any (private/public) instances without ssh key

Use Case 1:

1. The instance has crashed. Need to see console output
2. Become root in an instance. Reset OPC via serial console

- Click on Launch Cloud Shell Connection in OS Management



The screenshot shows the OCI Compute Instances page. The left sidebar has 'Compute' selected under 'Compute'. The top navigation bar shows the URL <https://cloud.oracle.com/compute/instances>. The main content area is titled 'OS Management'.

Top processes

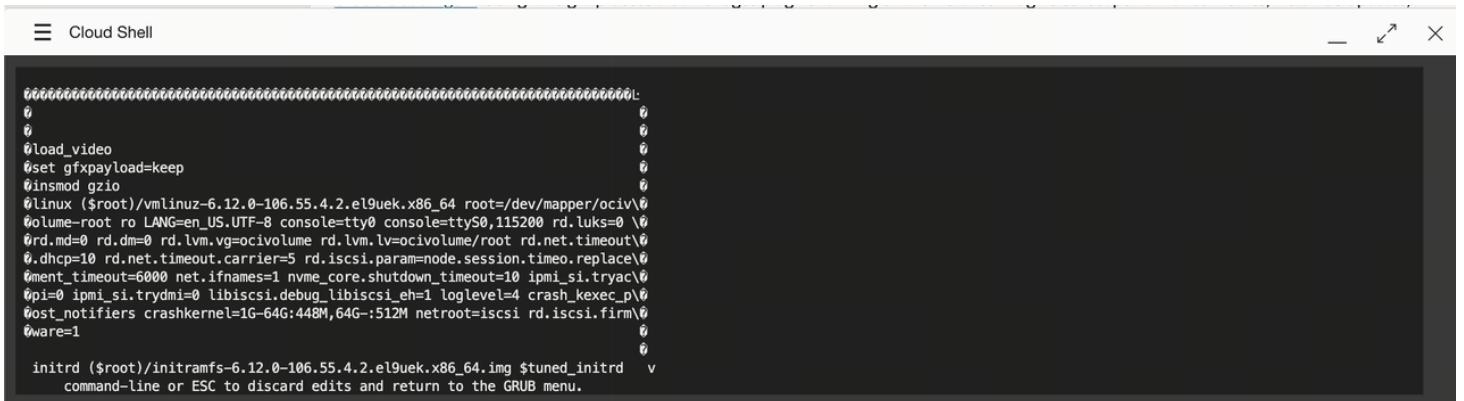
Use the OS Management Hub service to monitor the top processes on compute instances. CPU utilization values for the compute instance are normalized by number of CPU threads. CPU utilization for top processes are not normalized but are aggregated across CPU threads.

Console connection

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

State	Fingerprint of the server host key	Fingerprint of your public key	Compartment

- actions -> reboot (top of web browser)
- e for edit (booting up)

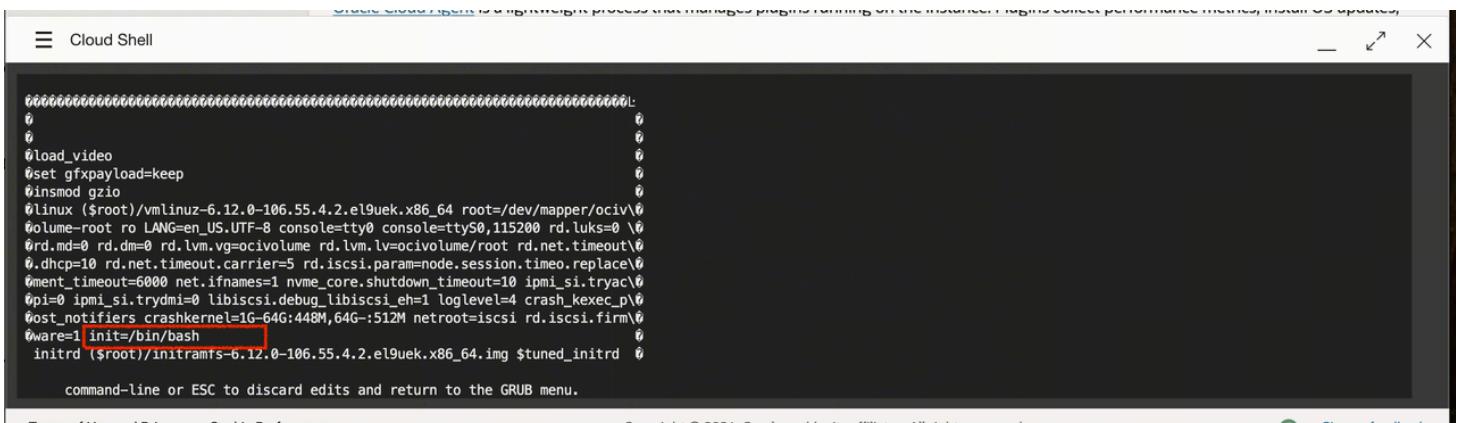


```

# 
# 
#load_video
#set gfxpayload=keep
#insmod gzio
#linux ($root)/vmlinuz-6.12.0-106.55.4.2.el9uek.x86_64 root=/dev/mapper/ociv\0
#volume-root ro LANG=en_US.UTF-8 console=tty0 console=ttyS0,115200 rd.luks=0 \0
#rd.md=0 rd.dm=0 rd.lvm.vg=ocivolume rd.lvm.lv=ocivolume/root rd.net.timeout\0
#dhcpc=10 rd.net.timeout.carrier=5 rd.iscsi.param=node.session.replace\0
#mnt_timeout=6000 net.ifnames=1 nvme_core.shutdown_timeout=10 ipmi_si.tryac\0
#ip=0 ipmi_si.trydm=0 libiscsi.debug.libiscsi_eh=1 loglevel=4 crash_kexec_p\0
#ost_notifiers crashkernel=1G-64G:448M,64G-:512M netroot=iscsi rd.iscsi.firm\0
#ware=1

initrd ($root)/initramfs-6.12.0-106.55.4.2.el9uek.x86_64.img $tuned_initrd v
command-line or ESC to discard edits and return to the GRUB menu.

```



```

# 
# 
#load_video
#set gfxpayload=keep
#insmod gzio
#linux ($root)/vmlinuz-6.12.0-106.55.4.2.el9uek.x86_64 root=/dev/mapper/ociv\0
#volume-root ro LANG=en_US.UTF-8 console=tty0 console=ttyS0,115200 rd.luks=0 \0
#rd.md=0 rd.dm=0 rd.lvm.vg=ocivolume rd.lvm.lv=ocivolume/root rd.net.timeout\0
#dhcpc=10 rd.net.timeout.carrier=5 rd.iscsi.param=node.session.replace\0
#mnt_timeout=6000 net.ifnames=1 nvme_core.shutdown_timeout=10 ipmi_si.tryac\0
#ip=0 ipmi_si.trydm=0 libiscsi.debug.libiscsi_eh=1 loglevel=4 crash_kexec_p\0
#ost_notifiers crashkernel=1G-64G:448M,64G-:512M netroot=iscsi rd.iscsi.firm\0
#ware=1 init=/bin/bash

initrd ($root)/initramfs-6.12.0-106.55.4.2.el9uek.x86_64.img $tuned_initrd v
command-line or ESC to discard edits and return to the GRUB menu.

```

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- add `init=/bin/bash` to the `linux` line

cltr+x and enter

Code block

```

1 # ssh key must be rsa-sha2-512
2 /bin/mount -o remount, rw /
3 cd ~opc/.ssh
4 echo '<contents of public key file>' | base64 -d >> authorized_keys
5 chmod 600 /home/opc/.ssh/authorized_keys
6 chown -R opc:opc /home/opc/.ssh
7
8 # safe umount
9 cd /
10 umount /
11
12 # force a reboot
13 /usr/sbin/reboot -f
14

```

```
[ OK ] Stopped D-Bus System Message Bus.
[ OK ] Closed D-Bus System Message Bus Socket.
[ OK ] Stopped Create Volatile Files and Directories.
[ OK ] Stopped Rule-based Manager for Device Events and Files.
[ OK ] Closed udev Control Socket.
[ OK ] Closed udev Kernel Socket.
[ OK ] Stopped dracut pre-udev hook.
[ OK ] Stopped dracut cmdline hook.
[ OK ] Stopped dracut ask for additional cmdline parameters.
      Starting Cleanup udev Database...
[ OK ] Stopped Create Static Device Nodes in /dev.
[ OK ] Stopped Create List of Static Device Nodes.
[ OK ] Stopped Create System Users.
[ OK ] Stopped Setup Virtual Console.
[ OK ] Finished Cleanup udev Database.
[ OK ] Reached target Switch Root.
      Starting Switch Root...
bash-5.1#
```

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```
Mu
0E
+S
w0
Nk
KJrkkav
366Ks4CI
7E6uJNUY
<+Q9r+Ei
kshitij

.patil@bytedance.com
ssh-rsa
U0S2NxKo
2UNqWvju
//cxJuh
a6zDMA2G
0r7+Pcv
fsk+aB0c
msaALkv8
kqdy1502
XQ== akshar.pande@USMAC-GY94WPVFCC.local4B
bash-5.1#
```

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Cloud Search resources, services, documentation, and Marketplace US East (Ashburn) Actions Start

instance-20260217-1145 Starting

Instance details

Details	Networking	Storage	Security	Management	OS Management	Monitoring	Work requests	Tags
Overview								
Use the OS Management Hub service to manage updates and patches on compute instances.								
⚠ OS Management Hub Agent is not enabled for this instance. Go to the Management tab and enable it in the Oracle Cloud Agent section. Examine the logs on the instance to identify any registration issues .								

```
[ 45.991490] [5707]: /usr/lib/systemd/system-shutdown/uptrack-save.sh failed with exit status 1.
[ 45.993114] systemd-shutdown[1]: Successfully changed into root pivot.
[ 45.995178] systemd-shutdown[1]: Returning to initrd...
[ 46.031464] dracut: Taking over mdmon processes.
[ 46.033153] dracut: Killing all remaining processes
dracut Warning: Killing all remaining processes
[ 46.091112] XFS (dm-0): Unmounting Filesystems 3aa327e4-ce2d-4637-9f24-7687e2c0e8b9
[ 46.105992] dracut Warning: Unmounted /oldroot.
dracut Warning: Unmounted /oldroot.
[ 46.456072] /etc/multipath.conf does not exist, blacklisting all devices.
[ 46.458032] You can run "/sbin/mpathconf --enable" to create
[ 46.458768] /etc/multipath.conf. See man mpathconf(8) for more details
[ 46.459546] invalid value for WatchdogSec: "0"
[ 46.128789] dracut: Disassembling device-mapper devices
[ 46.156996] dracut: Waiting for mdraid devices to be clean.
[ 46.160230] dracut: Disassembling mdraid devices.
Poweroff.
[ 46.188141] ACPI: PM: Preparing to enter system sleep state S5
[ 46.189604] reboot: Power down
```

- Click on webshell and login with the ssh key you added

```

debug1: Remote protocol version 2.0, remote software version OpenSSH_8.7
debug1: match: OpenSSH_8.7 pat OpenSSH* compat 0x04000000
debug1: Authenticating as 'opc'
debug1: SSH2_MSG_KEXINIT sent
debug1: SSH2_MSG_KEXINIT received
debug1: kex: algorithm: ecdh-sha2-nistp256
debug1: kex: host key algorithm: ecdsa-sha2-nistp256
debug1: kex: server->client cipher: aes256-gcm@openssh.com MAC: <implicit> compression: none
debug1: kex: client->server cipher: aes256-gcm@openssh.com MAC: <implicit> compression: none
debug1: kex: ecdh-sha2-nistp256 need=32 dh_need=32
debug1: kex: ecdh-sha2-nistp256 need=32 dh_need=32
debug1: expecting SSH2_MSG_KEX_ECDH_REPLY
debug1: Server host key: ecdsa-sha2-nistp256 SHA256:inSo/rUHQzhoS09GkIDl8keP9GgFFUtoB9AIbki4BY
debug1: Host '172.25.9.15' is known and matches the ECDSA host key.
debug1: Found key in /home/kenney_he/.ssh/known_hosts
debug1: resetting send seqnr 3
debug1: rekey out after 4294967296 blocks
debug1: SSH2_MSG_NEWKEYS sent
debug1: expecting SSH2_MSG_NEWKEYS
debug1: resetting read seqnr 3
debug1: SSH2_MSG_NEWKEYS received
debug1: rekey in after 4294967296 blocks
debug1: Will attempt key: /home/kenney_he/.ssh/id_rsa RSA SHA256:8t2ijZ6xP0sJE+1GZ7uI0SLp87yWJ0JJccm7L7KG32M explicit
debug1: SSH2_MSG_EXT_INFO received
debug1: kerberos_input_ext_info: server-sig-algs=<ssh-ed25519,sk-sh-ed25519@openssh.com,ssh-rsa,rsa-sha2-256,rsa-sha2-512,ssh-dss,ecdsa-sha2-nistp256,ecdsa-sha2-nistp384,ecdsa-sha2-nistp521,sk-ecdsa-sha2-nistp256@openssh.com,webauthn-sk-ecdsa-sha2-nistp256@openssh.com>
debug1: SSH2_MSG_SERVICE_ACCEPT received
debug1: Authentications That can continue: publickey,gssapi-keyex,gssapi-with-mic
debug1: Next authentication method: publickey
debug1: Offering public key: /home/kenney_he/.ssh/id_rsa RSA SHA256:8t2ijZ6xP0sJE+1GZ7uI0SLp87yWJ0JJccm7L7KG32M explicit
debug1: Server accepts key: /home/kenney_he/.ssh/id_rsa RSA SHA256:8t2ijZ6xP0sJE+1GZ7uI0SLp87yWJ0JJccm7L7KG32M explicit
debug1: Authentication succeeded (publickey).
Authenticated to 172.25.9.15 ([172.25.9.15]:22).
debug1: channel 0: new [client-session]
debug1: Requesting no-more-sessions@openssh.com
debug1: Entering interactive session.
debug1: pledge: network
debug1: client_input_global_request: rtype hostkeys-0@openssh.com want_reply 0
debug1: Remote: /home/opc/.ssh/authorized_keys:1: key options: agent-forwarding port-forwarding pty user-rc x11-forwarding
debug1: Remote: /home/opc/.ssh/authorized_keys:1: key options: agent-forwarding port-forwarding pty user-rc x11-forwarding
debug1: Sending environment.
debug1: Sending env LANG = en_US.UTF-8
Last login: Tue Feb 17 21:44:52 2026 from 172.25.9.43
[opc@instance-20260217-1145 ~]$ 

```

Cloud Shell

kenney_he@cloudshell:~ (us-ashburn-1)\$

3. Remote serial console connection below [Automation]

- Start your serial console session

Step 1

Step 2

Console connection

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

Search and Filter

Launch Cloud Shell connection Create local connection

State	Fingerprint of the server host key	Fingerprint of your public key
Active	SHA256:8Swnw+wHLvuo0vXebJnmdBdf/Yu/nezt8p1S/cyEXHE	SHA256:gvOAaMJGjQAOydJXIBSTA v48JRRyXwyCulVMs99AsAY

Page 1 of 1 (1 - 1 of 1 total items) Items per page: 25

Console history

The [console history](#) displays OS-level error messages that are captured by the serial console. Use it to check the status of an instance or diagnose problems.

Search and Filter Search

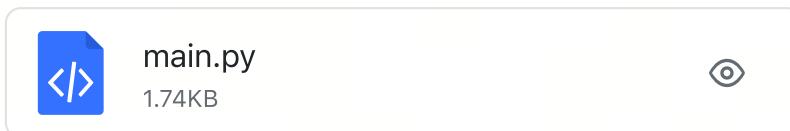
View current history

Display name	Date created
No console histories	

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VSCodium

- Script to connect to console is below



OKE

```
message for node" node="10.0.3.189" event="NodeHasNoDiskPressure"
[8097904.723852] kubelet[9618]: I0209 19:07:19.428616    9618 kubelet_node_status.go:645] "Recording event
message for node" node="10.0.3.189" event="NodeHasSufficientPID"
[8097904.724409] kubelet[9618]: I0209 19:07:19.428636    9618 kubelet_node_status.go:75] "Attempting to reg
ister node" node="10.0.3.189"
[8097904.754636] kubelet[9618]: E0209 19:07:19.460141    9618 kubelet_node_status.go:113] "Unable to regist
er node with API server, error getting existing node" err="nodes \"10.0.3.189\" not found" node="10.0.3.189"
"
[8097904.774795] kubelet[9618]: E0209 19:07:19.480305    9618 reconstruct.go:189] "Failed to get Node statu
s to reconstruct device paths" err="nodes \"10.0.3.189\" not found"
[8097904.830797] kubelet[9618]: I0209 19:07:19.536275    9618 csi_plugin.go:990] Failed to contact API serv
er when waiting for CSINode publishing: csinodes.storage.k8s.io "10.0.3.189" is forbidden: User "system:nod
e:10.0.3.226" cannot get resource "csinodes" in API group "storage.k8s.io" at the cluster scope: can only a
ccess CSINode with the same name as the requesting node
[8097904.846598] kubelet[9618]: . Opc-Request-Id: <nil>
[8097904.881223] kubelet[9618]: E0209 19:07:19.586710    9618 reconstruct.go:189] "Failed to get Node statu
s to reconstruct device paths" err="nodes \"10.0.3.189\" not found"
[8097904.987543] kubelet[9618]: E0209 19:07:19.693058    9618 reconstruct.go:189] "Failed to get Node statu
s to reconstruct device paths" err="nodes \"10.0.3.189\" not found"
[8097905.094162] kubelet[9618]: E0209 19:07:19.799658    9618 reconstruct.go:189] "Failed to get Node statu
s to reconstruct device paths" err="nodes \"10.0.3.189\" not found"
[8097905.201196] kubelet[9618]: E0209 19:07:19.906395    9618 reconstruct.go:189] "Failed to get Node statu
s to reconstruct device paths" err="nodes \"10.0.3.189\" not found"
[8097905.307664] kubelet[9618]: E0209 19:07:20.013027    9618 reconstruct.go:189] "Failed to get Node statu
s to reconstruct device paths" err="nodes \"10.0.3.189\" not found"
[8097905.414919] kubelet[9618]: E0209 19:07:20.120435    9618 reconstruct.go:189] "Failed to get Node statu
s to reconstruct device paths" err="nodes \"10.0.3.189\" not found"
[8097905.520923] kubelet[9618]: E0209 19:07:20.226319    9618 reconstruct.go:189] "Failed to get Node statu
s to reconstruct device paths" err="nodes \"10.0.3.189\" not found"
[8097905.627907] kubelet[9618]: E0209 19:07:20.333350    9618 reconstruct.go:189] "Failed to get Node statu
s to reconstruct device paths" err="nodes \"10.0.3.189\" not found"
[8097905.734607] kubelet[9618]: E0209 19:07:20.440003    9618 reconstruct.go:189] "Failed to get Node statu
s to reconstruct device paths" err="nodes \"10.0.3.189\" not found"
```

Private Cloud Instance

Code block

```
1
2 → ~ ssh -v -i ~/.ssh/id_rsa -o HostKeyAlgorithms=+ssh-rsa -o
   PubkeyAcceptedKeyTypes=+ssh-rsa -o ProxyCommand='ssh -W %h:%p -p 443
   ocid1.instanceconsoleconnection.oc1.iad.anuwcljrqw2xtbqcqvr6jl3azlvy3gvwz4im
   ghoq3lfgtimwzembat6hxca@instance-console.us-ashburn-1.oci.oraclecloud.com'
3
4
   ocid1.instance.oc1.iad.anuwcljrqw2xtbqcoe6clwbv4dk34gomariwrjup77xscycphi4ue
   gcrleq
5 OpenSSH_9.9p2, LibreSSL 3.3.6
6 debug1: Reading configuration data /Users/kenney.he/.ssh/config
7 debug1: Reading configuration data /Users/kenney.he/.byted-ide/ssh_config
8 debug1: Reading configuration data /etc/ssh/ssh_config
9 debug1: /etc/ssh/ssh_config line 21: include /etc/ssh/ssh_config.d/* matched
   no files
10 debug1: /etc/ssh/ssh_config line 54: Applying options for *
11 debug1: Authenticator provider $SSH_SK_PROVIDER did not resolve; disabling
12 debug1: Executing proxy command: exec ssh -W
   ocid1.instance.oc1.iad.anuwcljrqw2xtbqcoe6clwbv4dk34gomariwrjup77xscycphi4ue
   gcrleq:22 -p 443
```

```

ocid1.instanceconsoleconnection.oc1.iad.anuwcljrqw2xtbqcqvr6jl3azlvy3gvwz4im
ghoq3lfgtimwzembat6hxca@instance-console.us-ashburn-1.oci.oraclecloud.com
13 debug1: identity file /Users/kenney.he/.ssh/id_rsa type 0
14 debug1: identity file /Users/kenney.he/.ssh/id_rsa-cert type -1
15 debug1: Local version string SSH-2.0-OpenSSH_9.9
16
17 =====
18 IMPORTANT: Use a console connection to troubleshoot a malfunctioning
instance. For normal operations, you should connect to the instance using a
Secure Shell (SSH) or Remote Desktop connection. For steps, see
https://docs.cloud.oracle.com/iaas/Content/Compute/Tasks/accessinginstance.htm
19
20 For more information about troubleshooting your instance using a console
connection, see the documentation: https://docs.cloud.oracle.com/en-us/iaas/Content/Compute/References/serialconsole.htm#four
21 =====
22 debug1: Remote protocol version 2.0, remote software version
InstanceConsoleSSHD
23 debug1: compat_banner: no match: InstanceConsoleSSHD
24 ...
25 nexus-repository login:

```

Challenges

- OCI webconsole is subpar and provides no answers, for Kerberos enabled instance due to lack of tickets

Below will cause errors if you copy and paste so use above options

Code block

```

1 → ssh -o ProxyCommand='ssh -W %h:%p -p 443
ocid1.instanceconsoleconnection.oc1.iad.anuwcljrqw2xtbqcqvr6jl3azlvy3gvwz4im
ghoq3lfgtimwzembat6hxca@instance-console.us-ashburn-1.oci.oraclecloud.com'
ocid1.instance.oc1.iad.anuwcljrqw2xtbqcoe6clwbv4dk34gomariwrjup77xscycphi4ue
gcrleq
2
3 =====

```

```
4 IMPORTANT: Use a console connection to troubleshoot a malfunctioning
instance. For normal operations, you should connect to the instance using a
Secure Shell (SSH) or Remote Desktop connection. For steps, see
https://docs.cloud.oracle.com/iaas/Content/Compute/Tasks/accessinginstance.htm
5
6 For more information about troubleshooting your instance using a console
connection, see the documentation: https://docs.cloud.oracle.com/en-us/iaas/Content/Compute/References/serialconsole.htm#four
7 =====
8 Unable to negotiate with UNKNOWN port 65535: no matching host key type
found. Their offer: ssh-rsa
9
10
```

- <https://docs.oracle.com/en-us/iaas/Content/Compute/References/serialconsole.htm>
- Reset OPC user
- Reboot and ESC in cloud console
- Below Policy is required if not administrator

Required IAM Policies

To use Oracle Cloud Infrastructure, an administrator must be a member of a group granted security access in a **policy** ⓘ by a tenancy administrator. This access is required whether you're using the Console or the REST API with an SDK, CLI, or other tool. If you get a message that you don't have permission or are unauthorized, verify with the tenancy administrator what type of access you have and which **compartment** ⓘ your access works in.

To create an instance console connection, an administrator needs to grant user access to manage instance console connections and to read instances through an IAM policy. The resource name for an instance console connection is `instance-console-connection`. The resource name for instances is `instance`. The following policies grant users the ability to create an instance console connection:

 Copy

Allow group `<group_name>` to manage `instance-console-connection` in tenancy
Allow group `<group_name>` to read `instance` in tenancy

Instance console connection also supports [network sources](#). The following policies grant users the ability to create an instance console connection with a network source:

 Copy

Allow group `<group_name>` to manage `instance-console-connection` in tenancy wh
Allow group `<group_name>` to read `instance` in tenancy whe