

Linux Virtual Machine BYOI to Oracle Cloud Infrastructure

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Do not specify the HW-ADDR within the vNIC configuration

Within the vNIC configuration file (ifcfg-) do not expose the HW-ADDR;

Example:

```
[root@ol8: /etc/sysconfig/network-scripts]# more ifcfg-eth0  
DEVICE="eth0"  
BOOTPROTO="DHCP"  
ONBOOT="yes"  
TYPE="Ethernet"  
USERCTL="no"  
PEERDNS="yes"
```

The following operations should be considered before exporting a Virtual Machine to OCI:

Oracle Linux 6/7 (grub2)

- Add "net.ifnames=0 biosdevname=0" to Grub for your Linux machines. Edit "/etc/sysconfig/grub" and add the following values to GRUB_CMDLINE_LINUX line:

```
# GRUB_CMDLINE_LINUX="net.ifnames=0 biosdevname=0"
```

- Update Grub2 configuration

```
# grub2-mkconfig -o /boot/grub2/grub.cfg
```

- Verify there's no UDEV rules implemented for vNIC names under /etc/udev/rules.d
- If an automated UDEV rule is created for net-persistence, evaluate a possible work around like:

```
# cd /etc/udev/rules.d  
# rm -f 70-persistent-net.rules  
# ln -s /dev/null /etc/udev/rules.d/70-persistent-net.rules
```

Enable Virtual Machine Serial Console

Enable the serial console to possibly troubleshoot the Instance while running on OCI, if required.

1. Edit the /etc/default/grub file to update the following values:
 - a. Remove resume= from the kernel parameters; it slows down boot time significantly.
 - b. Replace GRUB_TERMINAL="gfxterm" with GRUB_TERMINAL="console serial" to use the serial console instead of graphics.
 - c. Add GRUB_SERIAL_COMMAND="serial --unit=0 --speed=115200" to configure grub's serial connection.
 - d. Replace GRUB_CMDLINE_LINUX="" with GRUB_CMDLINE_LINUX="console=tty0 console=ttyS0,115200" to add the serial console to the Linux kernel boot parameters.

2. Regenerate initramfs as follows:

```
# grub2-mkconfig -o /boot/grub2/grub.cfg
```

3.To verify, reboot the machine, and then run dmesg and look for the updated kernel parameters.

```
# dmesg |grep console=ttySo
```

VirtIO drivers and Paravirtualized option

To run “Paravirtualized Instances” on OCI, add paravirtualized device support by building the virtio drivers into the VM's initrd/initramfs.

1. Because this action works only on machines with a Linux kernel of version 3.4 or later, check that the system is running a modern kernel:

```
# uname -a
```

2. Rebuild initrd with the dracut tool, telling it to add the qemu module:

```
# dracut --logfile /var/log/Dracut.log --force --add qemu
```

3. Check lsinitrd to verify that the virtio drivers are now present

```
# lsinitrd |grep virtio
```

For more information about these requirements, please refer to:

- [Oracle Cloud Infrastructure Documentation – Preparing a Custom Linux Image for import](#)

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