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Importing Custom Windows Images to OCI

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Windows Source Image Requirements

- Custom images must meet the following requirements:
- The maximum image size is 400 GB.
- The image must be set up for BIOS boot.
- Only one disk is supported, and it must be the boot drive with a valid master boot record (MBR) and boot loader. You can migrate additional data volumes after you import the image's boot volume.
- The minimum boot volume size is 256 GB. For more information, see Custom Boot Volume Sizes.
- The boot process must not require additional data volumes to be present for a successful boot.
- The disk image cannot be encrypted.
- The disk image must be a VMDK or QCOW2 file.

Create the image file by cloning the source volume, not by creating a snapshot.

VMDK files must be either the "single growable" (monolithicSparse) type or the "stream optimized" (streamOptimized) type, both of which consist of a single VMDK file. All other VMDK formats, such as those that use multiple files, split volumes, or contain snapshots, are not supported.

- The network interface must use DHCP to discover the network settings. When you import a custom image, existing network interfaces are not recreated. Any existing network interfaces are replaced with a single NIC after the import process is complete. You can attach additional VNICs after you launch the imported instance.
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- The network configuration must not hardcode the MAC address for the network interface.

Preparing Windows VMs for Import

Before you can import a custom Windows image, you must prepare the image to ensure that instances launched from the image can boot correctly and that network connections will work.

Important

The system drive where Windows is installed will be imported to Oracle Cloud Infrastructure. All partitions on the drive will follow through the imported image. Any other drives will not be imported, and you must re-create them on the instance after import. You will then need to manually move the data on the non-system drives.

To prepare a Windows VM for import:

Follow your organization's security guidelines to ensure that the Windows system is secured. This can include, but is not limited to the following tasks:

- Install the latest security updates for the operating system and installed applications.

- Enable the firewall and configure it so that you only enable the rules which are needed.

- Disable unnecessary privileged accounts.

- Use strong passwords for all accounts

Configure Remote Desktop Protocol (RDP) access to the image:

a. Enable Remote Desktop connections to the image.
b. Modify the Windows Firewall inbound port rule to allow RDP access for both Private and Public network location types. When you import the image, the Windows Network Location Awareness service will identify the network connection as a public network type.

Determine whether the current Windows license type is a volume license by running the following command in PowerShell:

Get-CimInstance -ClassName SoftwareLicensingProduct | where {$_.PartialProductKey} | select ProductKeyChannel

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If the license is not a volume license, after you import the image, you will update the license type.

If you plan to launch the imported image on more than one VM instance, create a generalized image of the boot disk. A generalized image is cleaned of computer-specific information, such as unique identifiers. When you create instances from a generalized image, the unique identifiers are regenerated. This prevents two instances that are created from the same image from colliding on the same identifiers.

Create a backup of the root volume.

If the VM has remotely attached storage, such as NFS or block volumes, configure any services that rely on this storage to start manually. Remotely attached storage is not available the first time that an imported instance boots on Oracle Cloud Infrastructure.

Ensure that all network interfaces use DHCP, and that the MAC address and IP addresses are not hardcoded. See your system documentation for steps to perform network configuration for your system.

Download the Oracle Windows VirtIO drivers:

   a.   Sign in to the Oracle Software Delivery Cloud site.
   b.   In the **All Categories** list, select **Release**.
   c.   Type **Oracle Linux 7.7** in the search box and click **Search**.
   d.   Add **REL: Oracle Linux 7.7.x** to your cart, and then click **Continue**.
   e.   In the **Platforms/Languages** list, select **x86 64** bit. Click **Continue**.
   f.   Accept the **license agreement** and then click **Continue**.
   g.   Select the check box next to **Oracle VirtIO Drivers** Version for **Microsoft Windows 1.1.5**. Clear the other check boxes.
   h.   Click **Download** and then follow the prompts

Install the Oracle VirtIO drivers for Windows:

   a.   Follow the prompts in the installation wizard. On the **Installation Type** page, select **Custom**.
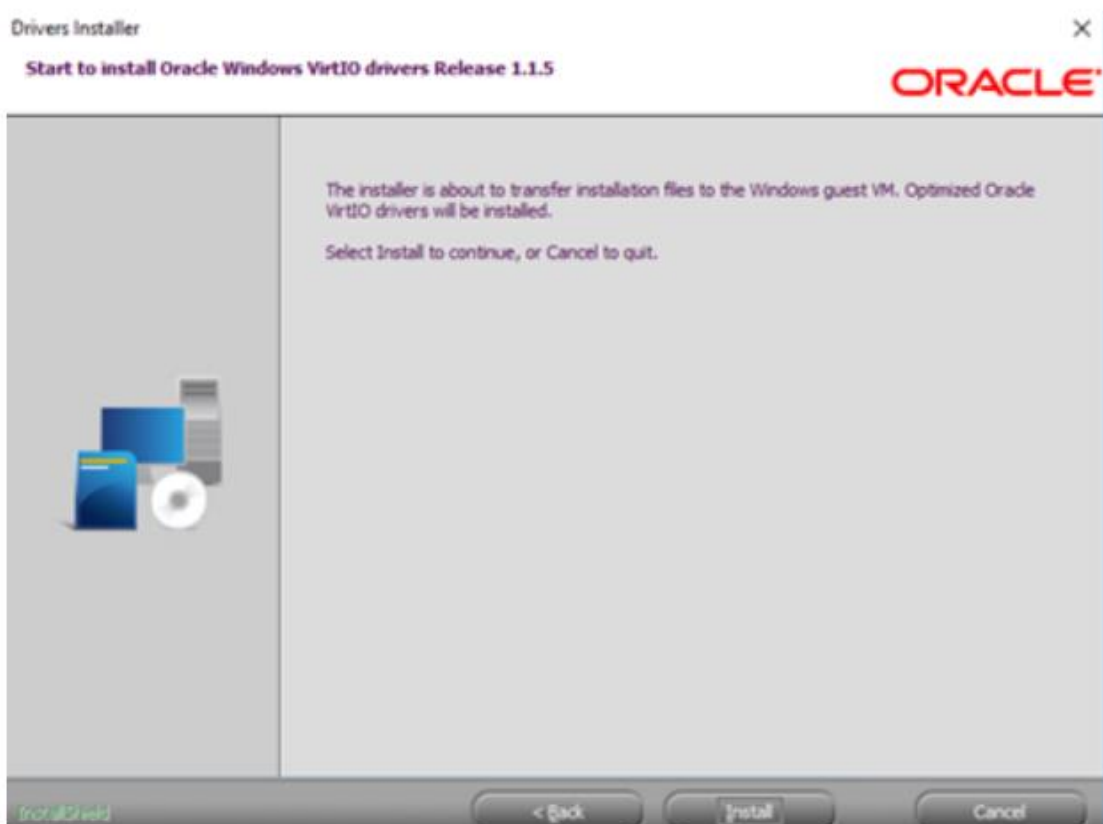
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    b.   Reboot the VM.

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Stop the VM.

Clone the stopped VM as a VMDK or QCOW2 file, and then export the image from your virtualization environment. See the tools documentation for your virtualization environment for steps.

https://docs.oracle.com/en-us/iaas/Content/Compute/Tasks/importingcustomimagewindows.htm

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