

Virtual Machine Installation Walkthrough

If running a production G-OnRamp server is either impractical or unnecessary, or for those who wish to experiment freely in a sandboxed environment, a [virtual appliance](#) is provided for use with virtualization software.

Broadly, there are 5 steps:

- [Acquire virtualization software](#)
- [Configure VirtualBox](#)
- [Acquire G-OnRamp virtual appliance](#)
- [Import the virtual appliance](#)
- [Launch the server](#)

Acquiring Virtualization software

In this step, we acquire the software necessary to run our virtual G-OnRamp appliance. While there are [many virtualization software packages](#), this walkthrough uses Oracle's [VirtualBox](#), as it is freely available, open-source, cross-platform, and has been the software used in development of G-OnRamp's virtual appliance.

To acquire VirtualBox:

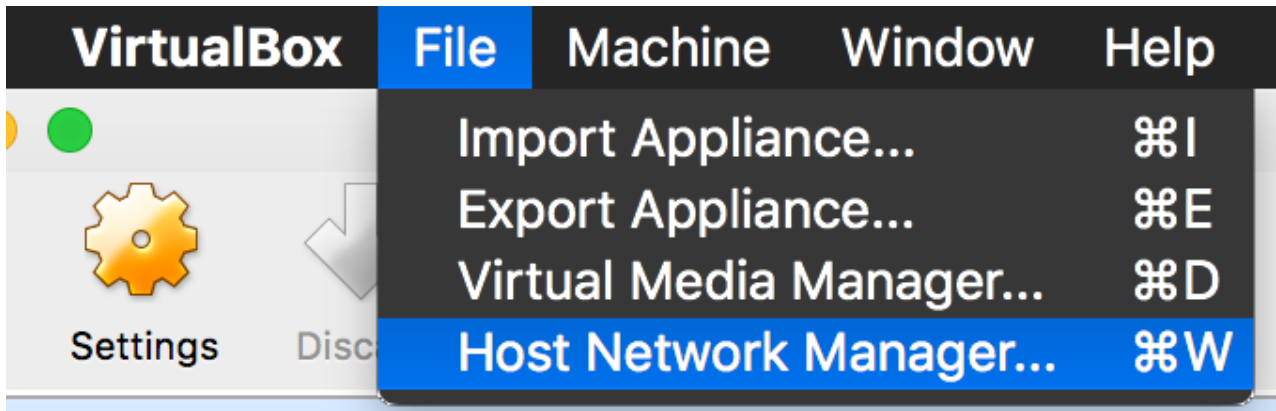
- **Navigate** to the [official VirtualBox page](http://www.virtualbox.org): www.virtualbox.org
- **Left-click** on the "[Download VirtualBox](#)" button in the center of the screen
- Under the 'VirtualBox binaries' sub-heading 'Virtualbox platform packages,' click on the link matching your host type
 - the 'host' is the operating system the software will run on, while the 'guest' is the OS you wish to run; e.g. if you are installing to OS X, select 'OS X hosts'. In the case of G-OnRamp, the guest OS is Ubuntu Linux
- Install the software, following any on-screen instructions

Configuring VirtualBox

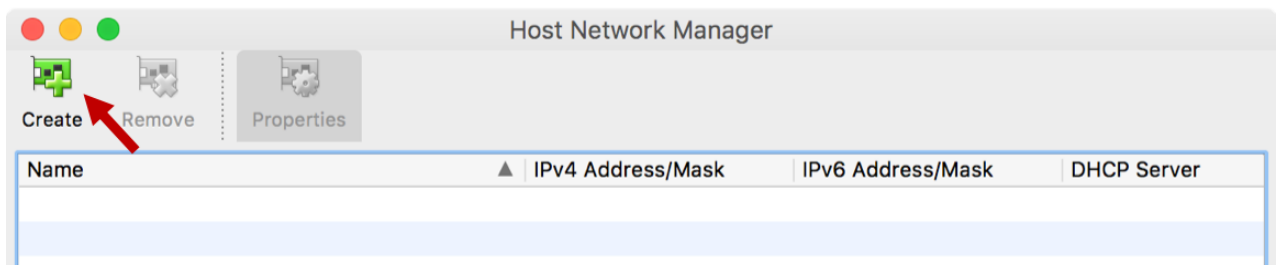
The G-OnRamp virtual appliance requires a 'host-only network' to facilitate communication between the guest and host systems. This is not enabled by default, so some configuration is required.

To add a host-only network:

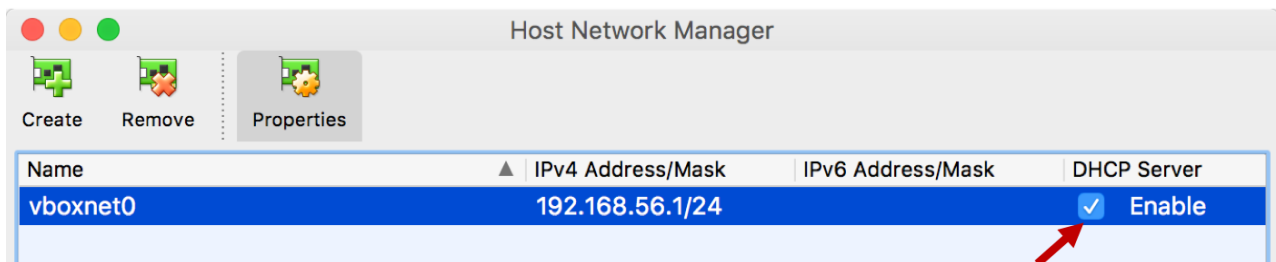
- Select 'File' from the VirtualBox menu bar, then select 'Host Network Manager'



- Click on the 'Create' icon in the Host Network Manager



- Ensure the checkbox under the 'DHCP Server' heading labelled 'Enable' is checked



- Exit the Host Network Manager

Acquiring the G-OnRamp virtual appliance

The G-OnRamp virtual appliance is effectively a snapshot of the state of a complete, pre-configured G-OnRamp production server.

Ordinarily, the virtual appliance is gotten from the G-OnRamp website;

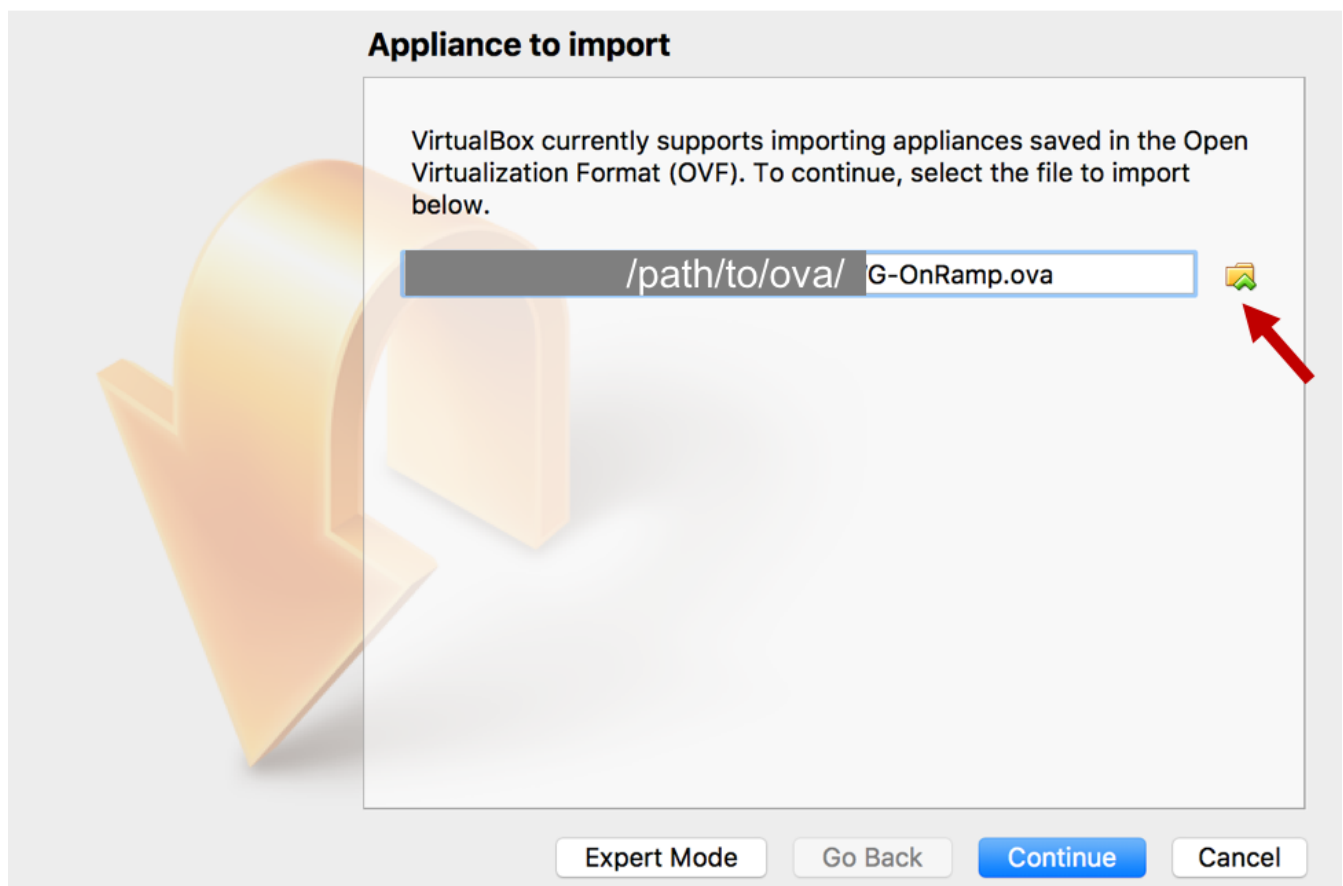
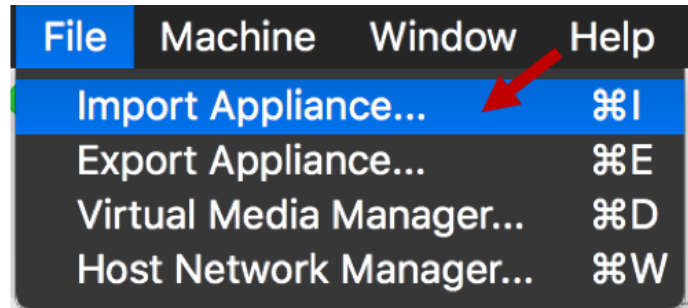
For the purposes of this workshop we have provided a copy of the virtual image in the G-OnRamp workshop folder located on each computer's Desktop.

Importing the Virtual Appliance into VirtualBox

Once the virtual appliance has been acquired, it must be imported into the previously-acquired virtualization software (VirtualBox).

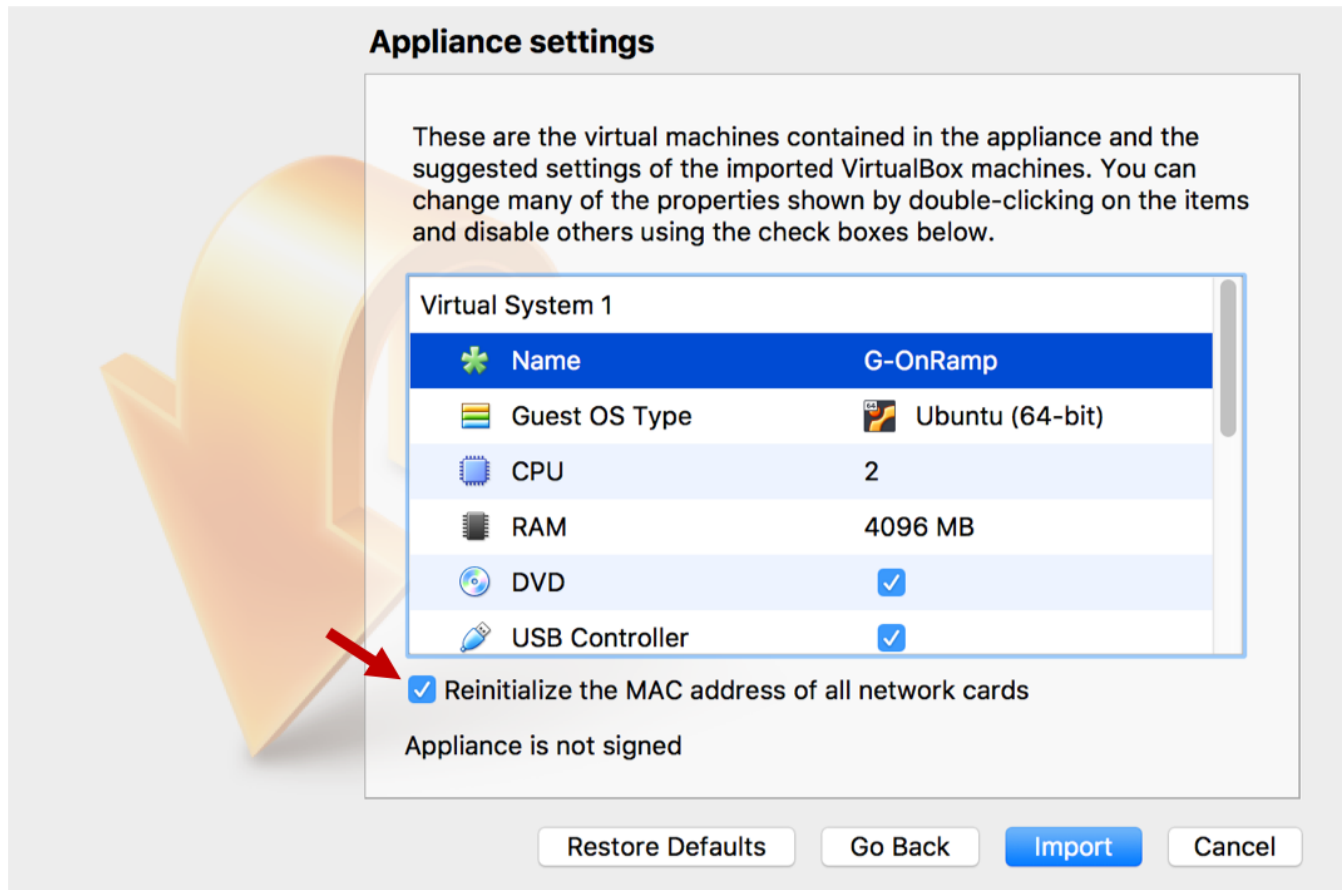
To import the G-OnRamp appliance:

- From VirtualBox, select 'File -> Import Appliance'



- Select the provided virtual appliance, then click 'Continue'
- Make any modifications you wish from the 'Appliance settings' page, ensuring the 'Reinitialize the MAC address of all network cards' checkbox is checked
 - while any field is modifiable, the defaults provide reasonable resources for basic navigation and experimentation

- provisioning the appliance with more CPUs or more RAM will positively impact guest performance, but might negatively impact host performance



- Click 'Import'
 - Import time will vary, but is on the order of a few minutes for most systems. The dialogue box that opens following clicking the 'Import' button will often cite a much greater number (20+ minutes), but will soon correct itself to the expected, shorter import duration.

Launching the G-OnRamp Server

Now that the appliance is installed, the virtual machine must be launched to use the G-OnRamp server (this is analogous to starting up a computer with Galaxy installed and configured with G-OnRamp tools and workflows).

To launch G-OnRamp:

- From VirtualBox, select the machine then click on the green arrow icon (➡)
 - Double-clicking on the device also launches the virtual machine

Congratulations, you have successfully installed the G-OnRamp VM!