

# VMWare How To Guide

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## Overview

The Swivel virtual appliance is available as a VMware appliance. This document is to aid in the initial deployment of virtual appliance. For information on Hyper-V see [Hyper-V How To Guide](#).

## Downloading the VM Appliance

After purchasing the appliance via a reseller or channel partner, you will receive a download email containing the VMware download. The download method is FTP and we recommend that you use a web browser to download the files by pasting the links into your browser address bar. We recommend this because the FTP directory in which the Swivel software resides is not viewable and will appear empty in an FTP client.

## Virtual Machine Specification

### General Specification (applies to all VM formats)

see [Virtual Appliance Server Specification](#)

## Recommendations

It is recommended to make regular snapshots, particularly after installation, and before and after system changes such as upgrades.

## VMware Tools

It is recommended to leave the VMware Tools at their installation level and not upgrade them on the Swivel appliances.

This process details the [VMware Tools Upgrade](#)

## VMware Requirements

In addition to the Virtual Appliance requirements listed above.

- We recommend that you avoid the use of dynamically expanding storage for larger production installations by allocating the appliance specified disk space at the deployment stage.
- Verify that ETH0 and ETH1 are available. If the machine definition is imported then these network interfaces will be predefined. Once installed, you can configure the network interfaces through the [CMI](#).

## Deployment Methods

### Deploy the OVF within vCenter

To deploy the OVF into vCenter without the need to convert (as with older versions of ESX):

- Click the host within vCenter that you wish to deploy the OVF to;
- Select File -> Deploy OVF Template;
- Follow the onscreen prompts to import the machine as you desire. It is recommended that you provision the storage entirely and do not use dynamically expanding storage.

## Converting the VMware Format

NOTE: the latest version of the VMware converter will not work. You must use version 4.0.1, as in the link given below.

If conversion fails, try deleting the .mf file and repeating the conversion.

Using VMware Convert it can be performed with the following steps:

- Install Converter on a windows machine (<http://fs.swivelsecure.com/files/vmware/VMware-converter-4.0.1-161434.exe>)
- Mount the virtual machine
- Select source type as "Virtual Appliance"
- Browse to the .ovf file from VM and select that as source image
- Select whatever you want on the "source data" page
- Select "Vmware Infrastructure Virtual Machine" as destination type
- Provide the IP address and credentials of your ESX server

See the [VMware Converter How to Guide](#)

## VMware OVF Tool 1.0

VMware OVF Tool is a command line utility that supports importing and exporting of OVF packages for a wide variety of VMware platforms, including VMware Workstation, VMware Server 2.0, vSphere 4.0, and earlier versions of VMware ESX Server and VMware VirtualCenter.

<http://www.vmware.com/downloads/download.do?downloadGroup=OVF-TOOL-1-0>

To convert OVF to VMware products using the GUI:

[http://downloads.vmware.com/d/info/datacenter\\_downloads/vmware\\_vcenter\\_converter\\_standalone/4\\_0](http://downloads.vmware.com/d/info/datacenter_downloads/vmware_vcenter_converter_standalone/4_0)

## Compatibility and VM Formats

### VMware Virtual Hardware

If you are using the Virtual appliance for the first time, or are upgrading your VMware infrastructure to the latest version, you may encounter prompts within the VMware management console encouraging you to upgrade the VMware machine hardware version.

For example, within ESX you may be prompted to upgrade from VMware machine hardware version 4 to version 7 or 8. This is normal and it is recommended that you upgrade.

There are a few ways by which you can perform this upgrade to the VMware machine hardware version:

- You can use the free VMware converter tool to convert the to version 7 or 8;
- Alternatively in newer versions of ESX you will be prompted to convert it automatically when you try to import a version 4 machine. This is probably the most convenient method.

However, before undertaking the upgrade we strongly suggest that you backup / take a copy of the VMware machine.

For VMware machine compatibility and further steps on how to upgrade see the VMware KB site: [Virtual machine hardware versions](#)

Note: After upgrading the VMware machine hardware version you will then likely be prompted to upgrade the VMware Tools component. Due to incompatibilities encountered by some customers, our recommendation at this time is to abstain from upgrading the VMware Tools component until such a time that a new Swivel Virtual appliance Operating System is available with the updated component. The installed version of VMware Tools will continue to function at the new VMware machine hardware version.

### vSPHERE (ESX 3.5, 4.x, 5.x)

It is necessary to convert the OVF to VDMK and then import to the VM datastore and then follow the instructions.

An overview of the process is as follows:

1. Open vSphere.
2. File -> Deploy OVF Template. Browse to OVF. Select OVF.
3. OVF uploaded...
4. Next, next, next.... Finish.

### ESXi 3.5, 4.x, 5.x

It is necessary to convert OVF to VDMK and then import to the VM datastore and then follow the instructions

Download VMware ESXi 4.0 (free edition):

[https://www.vmware.com/tryvmware/p/download.php?p=free-esxi&lp=1&a=DOWNLOAD\\_FILE&baseurl=http://download2.vmware.com/software/vi/&filename=V](https://www.vmware.com/tryvmware/p/download.php?p=free-esxi&lp=1&a=DOWNLOAD_FILE&baseurl=http://download2.vmware.com/software/vi/&filename=V)

## Workstation 4.x-10.x

It may not be necessary to convert the file, all that is required is to double-click the OVF file and is create a VMDK compatible file. Another possibility is to import the OVF file from using the VMware Workstation application. If importing the OVF file does not work, use the VMWare converter option.

Download VMware Workstation (trial 30 day edition):

[https://www.vmware.com/tryvmware/p/download.php?p=workstation&lp=1&a=DOWNLOAD\\_FILE&baseurl=http://download2.vmware.com/software/wkst/&filename](https://www.vmware.com/tryvmware/p/download.php?p=workstation&lp=1&a=DOWNLOAD_FILE&baseurl=http://download2.vmware.com/software/wkst/&filename)

## VMware format

The Swivel appliance is distributed as a OVF file.

## What is OVF?

Open Virtualization Format (OVF), is a platform independent, efficient, extensible, and open packaging and distribution format for virtual machines.

OVF enables efficient, flexible, and secure distribution of enterprise software, facilitating the mobility of virtual machines and giving customers vendor and platform independence. Customers can deploy an OVF formatted virtual machine on the virtualization platform of their choice.

## How does VMDK compare to OVF?

VMDK is a file format that only encodes a single virtual disk from a virtual machine. A VMDK does not contain information about the virtual hardware of a machine, such as the CPU, memory, disk, and network information. A virtual machine may include multiple virtual disks or VMDKs. An administrator who wishes to deploy a virtual disk must then configure all of this information, often manually, using incomplete documentation.

The OVF format, on the other hand, provides a complete specification of the virtual machine. This includes the full list of required virtual disks plus the required virtual hardware configuration, including CPU, memory, networking, and storage. An administrator can quickly provision this virtual machine into virtual infrastructure with little or no manual intervention. In addition, the OVF is a standards-based, portable format that allows the user to deploy this virtual machine in any hypervisor that supports OVF.

It is possible to convert OVF to VMDK using two different methods. (to perform this download it is necessary have a VMWARE account, which is available for free)

## Troubleshooting

### Cannot download VMWare Image

Swivel appliance download directory appears empty. The directory cannot be viewed. The URL must be directly accessed. This can be done though IE by clicking on the Appliance URL or pasting the URL into the URL bar.

If that does not work try entering the username and password as part of the URL:

```
ftp://username:password@URL
```

Can you ping fs.swivelsecure.com

If you ftp fs.swivelsecure.com is there a login prompt (You will noot be able to see the file but it will test that FTP access is available)

Is there a proxy server blocking connectivity?

### ESXi does not support serial ports

Where serial ports are used with other VMware versions the serial ports need to be configured with correct baud rate etc.

### The OVF descriptor file could not be parsed

The OVF file could not be read, such as when trying to import into VMware workstation. see [VMWare Converter How to Guide](#)

### 64bit guest OS but can only run 32 bit

It is possible to use the VM in 32-bit mode.

Ensuring that the VM is powered off, in VMware select the VM and go to Edit Settings -> Options -> Guest Operating System. Select "Red Hat Enterprise Linux 4" as the guest operating system and you should find it boots up using the appropriate kernel.

**Note: Version 3 Appliances only support 64 bit**

## **File System becomes Read Only**

See the following article [Linux based file systems become read-only](#)

## **MPTscsi and mptbase errors**

The VM should install with the correct SCSI controllers, and if these errors are seen, reboot and see if they still occur.

The SCI controller should be listed as : SCSI controller LSI Logic SAS

## **Next Steps - Configuring Swivel**

Having successfully installed the virtual machine, the next step is to login to the CMI through the virtual machine console or by SSH to the default IP address to configure the appliance.

When the Networking has been configured and Tomcat restarted/started, then Swivel can be configured through the Swivel Administration Console, see [How to initially configure PINsafe](#)