



VMS Software

# Migrating Live VSI OpenVMS Virtual Machines Using VMware vMotion

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# 1. Introduction

The vMotion feature of VMware vSphere makes it possible to migrate a running virtual machine from one VMware ESXi host to another with zero downtime. This document provides an outline of the steps that you must take to build a vMotion-capable environment. For a detailed step-by-step tutorial, refer to [this video \[https://youtu.be/T4P0ASqrIpc\]](https://youtu.be/T4P0ASqrIpc).

## 2. Requirements

Before you start, make sure you familiarize yourself with the technical requirements listed below.

### Processor requirements

Depending on the processor that each of the systems in your cluster is equipped with, the cluster may or may not function correctly. Ideally, all of your systems should be equipped with identical processors – this guarantees that vMotion *will always* work. If some or all your machines are equipped with different processors, consider the following:

- vMotion *should work* between host systems equipped with processors of the same family and generation
- vMotion *might work* between host systems equipped with processors of different families and/or generations from the same manufacturer
- vMotion *will not work* between AMD- and Intel-equipped host systems

### Network interface requirements

All ESXi host systems in your cluster must have the same network connections.

In addition to the network interfaces used for the host and guest systems network connections, *each* host system *must* have at least one dedicated network interface (preferably, 10Gbit or faster) for the vMotion traffic. These dedicated network interfaces *must* be connected to the same dedicated network or VLAN.

### Storage requirements

All host systems must have access to a SAN array which presents a volume for use as a VMFS datastore. This can be achieved either through a VMware-supported Fiber Channel adapter, a VMware-supported iSCSI Ethernet adapter, or a regular (preferably dedicated) 10Gbit or faster network interface (using VMware's software iSCSI). In the video, we are using an iSCSI shared storage.

## 3. Creating a vMotion-Capable Environment and Performing vMotion

The steps below outline the process of building a vMotion-capable environment from scratch. For a detailed step-by-step demonstration, see [the video \[https://youtu.be/T4P0ASqrIpc\]](https://youtu.be/T4P0ASqrIpc).

1. Create the first ESXi host system and set it up with a static IP address rather than a dynamic one managed by DHCP. Using a static IP address guarantees that vMotion will work correctly.
2. Set the Management Network on the system the way that fits your environment.
3. Create however many more ESXi host systems you need and set them up the same way.

4. Connect one of your ESXi host systems to a shared storage device (in the video, we are using iSCSI).
5. Install vCenter vSphere and provide it with the IP address of the ESXi host from the previous step.
6. In vSphere, connect your ESXi host systems into a cluster.
7. Still in vSphere, create a new distributed switch and add your ESXi hosts systems to it. The distributed switch allows the guest VMs to maintain network connection while being moved between hosts.
8. Add at least two NICs per host to the switch (as a failsafe mechanism for network failure).
9. Assign the existing network adapters of each VM to the switch.
10. Make sure that the DPortGroup on the switch contains all ESXi hosts systems and the vSphere virtual machine.
11. On any of the ESXi host systems, create your guest systems and install VSI OpenVMS x86-64 on them.
12. Enable the Guest Console feature on each your VSI OpenVMS guest systems. For detailed instructions, refer to the *VSI OpenVMS x86-64 V9.2-3 Installation Guide* [<https://docs.vmssoftware.com/vsi-openvms-x86-64-v923-installation-guide/>].
13. Now, you are ready to perform vMotion on any of your VSI OpenVMS x86-64 guests. To do that, right-click the guest that you want to move and select **Migrate** from the context menu.