

# Migrating Your Existing Environment to Scale Computing's HC3™ System

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## *Planning your Migration*

The first step in your migration to Scale's HC3™ System is to determine each VM's candidacy for running in a virtual environment. To do this, you will want to verify characteristics such as:

- Resource requirements of each Virtual Machine to be sure your HC3 cluster can support the proposed workloads in terms of CPU, memory and storage I/O and capacity needs
- Check the Scale Computing Support Matrix for support on each operating system (see [partner/customer portal](#) for latest).

### **Supported operating systems:**

- o Windows Server 2012, Windows Server 2008 R2, Windows Server 2003 R2, Windows 8 (64 bit), Windows 7, Windows Vista, Windows XP
- o RHEL/CentOS 4, 5, 6 (32 bit and 64 bit)

After you have evaluated each VM's candidacy for running in a virtual environment, you will want to schedule out your planned move over the coming weeks or months with maintenance windows scheduled for any planned outages.

Not all workloads will need to move to HC3 all at once or at all. While most customers do take advantage of HC3 to handle their complete datacenter needs, not all workloads require the levels of availability that HC3 delivers and may be fine where they are at until you are ready to retire the existing hardware or virtualization platform. In some cases customers use HC3 as a cost effective backup and standby solution for existing workloads until they are ready to make the switch.

## *Migrating to HC3 using Scale Computing's HC3 Move powered by Double-Take*

Many customers leverage the move to HC3 as an opportunity to upgrade antiquated operating systems and applications to the latest and greatest. For those workloads that do not need to be refreshed, HC3 Move powered by Double-Take can be leveraged to migrate your existing environment onto HC3.

Whether you are migrating physical servers (Physical-to-Virtual – P2V) or virtual servers (Virtual-to-Virtual – V2V), HC3 Move powered by Double-Take gives users the ability to migrate their existing Windows-based VMs to an HC3 VM with near-zero downtime. This tool migrates your entire server including the system state, application, file system, permissions, attributes, compression and encryption settings without suspending production operations. All system and application data is moved while the machine is live and online and HC3 Move powered by Double-Take ensures the write order integrity for all migrated data.

HC3 Move powered by Double-Take also offers great flexibility in the cutover to the migrated HC3 VM by allowing for a Test Cutover to proactively validate that the migration cutover worked as planned. Once comfortable, the validated cutover can be executed at your scheduled maintenance window manually or automatically.

## Migrating to HC3 using other 3<sup>rd</sup> party Backup and Recovery Tools

Because Scale expects most customers want to use performance drivers (VIRTIO), Scale has developed a series of application notes that provide step by step examples using popular full system backup and recovery tools from companies like Storagecraft, Acronis, and Symantec. Using the application notes for these tools, you can learn how to backup workloads running on physical machines or 3<sup>rd</sup> party virtualization platforms (VMware, Hyper-V, etc.) and restore them to HC3 VMs using performance VIRTIO drivers. These documents can be found on the [partner/customer portal](#).

In the application notes, you will find steps detailing the following:

- Reviewing the Software and Hardware Requirements
- Preparing the Source Machine for Transfer
  - Performing a backup of the Source server including the Master Boot Record
- Creating a new VM on HC3
  - Uploading the ISO CD required for restoration to the HC3 VM
- Restoring the Backup using Hardware Independent Restore to inject performance drivers (VIRTIO)
- Cleaning up and Finalizing the P2V process

## Migrating to HC3 leveraging Scale Computing ScaleCare Services

Scale Computing's team of experts is here to help in the process of migrating to HC3. Customers who want to engage Scale Computing's ScaleCare Services have the following options available to them:

### HC3 ScaleCare Migrate Quickstart Service

For customers who plan to take advantage of the HC3 Move powered by Double-Take product, Scale offers a Quickstart service demonstrating how to leverage the HC3 Move product by remotely walking through the migration of one physical or virtual machine to an HC3 virtual machine. It is intended for customers who plan to manage the migration of all other servers to HC3 and want a quick way to ensure they understand how to use the HC3 Move software.

### HC3 ScaleCare Migrate Service

This comprehensive, remote service is intended for customers who would prefer that Scale Computing complete the migration to HC3 on their behalf. This service includes the planning, pre-migration setup, the migration of Windows or Linux servers to HC3 and a post migration server validation.



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