PlateSpin Migrate 12.0 Release Notes

July 2015

PlateSpin Migrate version 12.0 includes new features, enhancements, and bug fixes.

Many of these improvements were made in direct response to suggestions from our customers. We thank you for your time and valuable input. We hope you continue to help us ensure that our products meet all your needs. You can post feedback in the PlateSpin Migrate forum on NetIQ Communities, our online community that also includes product information, blogs, and links to helpful resources.

The documentation for this product is available on the NetIQ Website in HTML and PDF formats on a page that does not require you to log in. If you have suggestions for documentation improvements, click **comment on this topic** at the bottom of any page in the HTML version of the PlateSpin Migrate 12.0 documentation posted at the NetIQ Documentation Website.

This product contains undocumented utilities that the Technical Support team might use to diagnose or correct problems.

For documentation that accompanied earlier releases, visit the PlateSpin Migrate 12.0 Documentation Web Site and scroll to *Previous Releases.*

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1 What’s New?

The following sections outline the key features and functions provided in this release:

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1.1 Enhancements

PlateSpin Migrate 12.0 includes the following enhancements:

- Introduces a web interface that provides the following:
  - Optimizes large scale migration of workloads to VMware containers
  - Includes scheduler for replications and Block-Based driver for faster server sync and cut-over time

For more information about the Web Interface, see Working with the PlateSpin Migrate Web Interface in the *PlateSpin Migrate 12.0 User Guide*.

- UEFI and GPT support for Linux workloads.
- Support for migrating workloads to the following:
  - Hyper-V Cluster by using Cluster Shared Volumes
  - Hitachi LPAR
- Enhanced Migrate Command Line Interface.

1.2 Workload and Container Support

PlateSpin Migrate 12.0 includes support for the following workloads and containers:

- **Linux Workloads:**
  - CentOS 6.*x*, 5.*x*, 4.*x*
  - Red Hat Enterprise Linux 7 (including XFS), 6.6, 5.11
- **Hypervisors:**
  - Citrix XenServer 6.2, 6.5
  - Redhat Enterprise Linux (RHEL) 7 KVM
  - VMware ESXi 6.0
  - VMware vCenter 6.0

For more information about the supported workloads and containers, see the "Supported Configurations" section in the *PlateSpin Migrate 12.0 User Guide*.

1.3 Platform Support

PlateSpin Migrate 12.0 includes support for the following platforms:

For PlateSpin Migrate Server Installation:

- Windows Server 2012 R2
- Windows Server 2012
- Windows Server 2008 64-bit

For PlateSpin Migrate Client Installation:

- Windows Server 2012 R2
- Windows Server 2012
- Windows 8.1
- Windows 8

For more information about the supported platforms, see the "Preparing to Install PlateSpin Migrate" section in the *PlateSpin Migrate 12.0 Installation and Upgrade Guide.*

1.4 Database Support

PlateSpin Migrate 12.0 includes support for the databases:

- Microsoft SQL Server 2014 Express Edition - A copy of this database software is included in your PlateSpin Migrate software distribution
- Microsoft SQL Server 2014

2 Installing PlateSpin Migrate 12.0

To install PlateSpin Migrate 12.0, see "Installing PlateSpin Migrate" in the *PlateSpin Migrate 12.0 Installation and Upgrade Guide*.

3 Upgrading to PlateSpin Migrate 12.0

You can use your PlateSpin Migrate 12.0 installation program to upgrade the following product versions:

- PlateSpin Migrate 11.1
- PlateSpin Migrate 11.0

For instructions on downloading and upgrading to PlateSpin Migrate 12.0, see "Upgrading PlateSpin Migrate" in the *PlateSpin Migrate 12.0 Installation and Upgrade Guide*.

4 Bug Fixes

The following is a list of bugs that were fixed for this release:

- **932115:** CLI specified virtual network is used during conversion and server sync instead of the default.
- **926863:** Unable to load DLL 'ZLibWrapper' during workload conversion with compression enabled.
- **912802:** Target VM does not boot "Volume with serial number 00000000".
- **892472:** When source workload has multipath enabled, the boot device `/dev/mapper/mp_root-part1` does not get replaced by `/dev/sda1/ in /etc/fstab` on the target.
- **907078:** Windows workload remote registry discovery using named pipes crashing.
- **927976:** Windows file server disk quota settings and templates are not set on target post migration.
- **925595:** Error when sending files: This implementation is not part of the Windows Platform FIPS validated cryptographic algorithms.
- **930166:** CPUID SDK library update to prevent crash on Korean Windows 2012 workload.
- **930486:** Creating 4.9 TB volume partition fails.
- **933726:** Windows Source OFX connection not established post upgrade.
- **933162:** CLI handling network name case insensitive or extra space in it.

5 Known Issues

- **930355 - Mapping volumes not supported when migrating Linux workloads:** When you use the PlateSpin Migrate Client to migrate Linux workloads, the following are not supported:
  - Mapping boot volume to LVM

- Mapping any volume to a existing Volume Group
- Mapping any volume to new Volume Group
- Re-Mapping Volume group to disk

- **937071 - Unable to migrate Linux workloads that have volumes created on raw disks without partitions:** PlateSpin Migrate does not support migrating Linux workloads that have volumes created on raw disks without partitions.
- **902489 - Unable to migrate a workload to Hitachi LPAR that has an operating system running on it:** When you migrate a workload to Hitachi LPAR that has an operating system running on it, the migration might not complete. This is because the migration job waits for user intervention during the **Configure Target Machine** step of migration.

  Workaround: Modify the UEFI Boot Order of Hitachi LPAR to enable it to boot from the hard disk instead of the ISO image.
- **917209 - Warning message displayed when you migrate a workload to Hitachi LPAR:**

  When you migrate a workload to Hitachi LPAR, a warning message similar to the following might get displayed:

  ```
  Device 'Unassigned Hitachi Shared FC Device 3017' is not supported by ......
  ```

  Workaround: Ignore the message.
- **929511 - Unable to install PlateSpin Migrate on Windows Server 2012 and Windows Server 2012 R2 computer:** On a Windows Server 2012 or Windows Server 2012 R2 computer, if you disable UAC through the Control Panel and then install PlateSpin Migrate on the computer, the prerequisites check utility displays an error that the UAC is still enabled. This is because when we disable UAC from the Control Panel, the change is not reflected in the corresponding registry key.

  Workaround: To disable UAC on a Windows Server 2012 or a Windows Server 2012 R2 computer, see Microsoft TechNet.
- **929978 - Discovered Hyper-V container displays as a workload in the PlateSpin Migrate Web Interface:** If you use the PlateSpin Migrate Web Interface to discover a Hyper-V container, the Hyper-V container is listed as a workload in the interface. You must not migrate this Hyper-V container.
- **937070 - Unable to migrate a Linux workload to a container that does not support the source workload firmware:** The migration of a Linux workload fails in the following scenarios because UEFI to BIOS conversion and vice versa is not supported:
  - Migrating a Linux workload with UEFI firmware to a container that supports BIOS firmware.
  - Migrating a Linux workload with BIOS firmware to a container that supports UEFI firmware.
- **895957- Unable to execute post-migration scripts on a Linux workload:** Post-migration scripts fail to execute on a Linux workload.
- **Requirements for VMware DRS Cluster support:** PlateSpin Migrate supports VMware Clusters with and without DRS enabled, and with any level of DRS (`Manual`, `Partially Automated`, or `Fully Automated`). However, to be a valid migration target, your VMware Cluster must be discovered via vCenter and not by directly inventorying individual ESX servers.

  See "Discovery Guidelines for Machine Types and Credentials" in your *User Guide*.
- **493589 - (Windows sources) Non-default per-volume VSS settings are not preserved after migration:** This issue is under consideration for an upcoming fix.
- **505426 - (ESX4) No warning or error on wrong vCPU selection:** If the number of the requested vCPUs exceeds the number of physical CPUs on the ESX 4 host, the requested number is ignored and the target VM is created with a single vCPU without a warning. This issue is under consideration for an upcoming fix.

- **506154 - Special character in datastore name causing migration problems:** Migration operations might fail when they are attempted on ESX datastores that have the “+” or other special characters in the datastore name.

  See KB Article 7009373.

- **595490 - Preserving boot partition causes migration problems:** In some migration scenarios, the system improperly allows you to preserve your boot partition on the target, preventing the proper workload from booting. This issue is under investigation.

  Workaround: Do not opt to preserve your boot partition on the target.

- **604320 - (Linux to ESX 4) Problem completing migration if the source OS has autologin or CD automount features enabled:** The migration is also affected if you log in to the target during the job’s Configuration step.

  Workaround: Disable the autologin and CD automount features on the source; avoid logging in to the target workload prior to the completion of the migration.

- **619942 - Failure to execute a post-migration script with Unicode characters in the filename:** If you use Unicode characters in the filename of your post-migration script, the script fails to execute.

  Workaround: Use only ASCII characters when naming a post-migration action.

- **655828 - Failure to mount NSS volumes:** After a migration is completed, NSS volumes with snapshots enabled are not automatically mounted as expected.

  See KB Article 7008773.

- **680259 - (VMware 4.1) Poor networking performance by traffic-forwarding VMs:** In some scenarios, the replica of a workload that is forwarding network traffic (for example, if the workload’s purpose is to serve as a network bridge for NAT, VPN, or a firewall) might show significant network performance degradation. This is related to a problem with VMXNET 2 and VMXNET 3 adapters that have LRO (large receive offload) enabled.

  Workaround: Disable LRO on the virtual network adapter. For guidance, see the VMware vSphere 4.1 Release Notes (http://www.vmware.com/support/vsphere4/doc/vsp_esxi41_vc41_rel_notes.html) (scroll down to the bulleted item `Poor TCP performance...`).

- **685509 - Failure with `Access Denied` error during replication to an image stored on a network share:** The Controller service on Image servers that use network shares for storage does not preserve the service `Log On As` credentials after an upgrade. Image operations fail with an `Access Denied` message until the controller service is updated with the correct `Log On As` credentials.

  See KB Article 7008772.

- **692680 - VSS snapshots are not preserved:** VSS snapshots taken by third-party applications on the source workload are not replicated to the target upon migration.

- **702152 - Migration over WAN taking a long time if target VM host has a high number of datastores:** Under some circumstances, when your Migrate server is connected to the VM host over WAN, and if your VM host has a high number of datastores, the process of locating the appropriate ISO image required for booting the target might take longer than expected. This issue is under investigation.

- **779194 - Unmapped `/home` directory is disabled and unmounted after one time server sync:** If you perform a server sync and then unman the `/home` partition to `none`, the partition / home directory should be mounted and enabled on the target server, instead it is disabled and unmounted.

  Workaround: Following the Server Sync, uncomment the appropriate line in the target server’s `/etc/fstab` file.

  See KB Article 7014638.

- **810460 - VMware tools are not installed during a conversion of a Windows 20212 server core:** VMware tools are not installed during a conversion of a Windows 2012 server core.

  Workaround: Install the VMware tools manually after the conversion.

- **822601 - Network card is not initialized on SLES 11 target VM hosted on Windows 2008 Hyper-V host:** If you perform a SLES 11 workload (cloned VM) migration using the semi-automated method to a target VM (faked physical) on a Windows 2008 Hyper-V host, the process freezes at the "Configuring OS" step.

  Workaround: For information about working around this issue, see KB 7012911.

- **824724 - Target VM does not boot after migration from VMware ESX to Citrix Xen if boot files are located in second disk:** When a VM is converted from VMware ESX to Citrix Xen and its boot files are allocated in second disk, the VM does not boot and manual intervention is requested. This is because Citrix XEN VM tries to boot with disk 0 rather than with the bootfiles allocated to disk 2.

  Workaround: To resolve this problem, rearrange the virtual-disk position in XenCenter so that the virtual machine boots from the virtual disk containing the operating system. The knowledge article at the Citrix Web site (http://support.citrix.com/servlet/KbServlet/download/32320-102-691310/xcm-10-guide.pdf) includes information about how to change the position of the virtual disk containing the operating system.

  See also KB Article 7012906.

- **825016 - XenServer tools are not being removed after conversion:** XenServer tools on a Windows VM in a Citrix XenServer hypervisor environment are not removed when the VM is converted to a VMware container or a physical container.

  Workaround: The user must manually uninstall the XenServer tools after conversion.

- **825434 - After migration, the primary partition (C:\) is converted to a logical partition on the target:** *Scenario*: Moving or copying a Windows OS machine with more than three primary partitions to a physical machine where a Windows OS has been installed with minimum 3 primary partitions. At least one primary partition is preserved in the target machine.

  Effect: After the migration, the Windows OS machine is unable to boot.

  Example: The following error occurs when Windows 2003 machine is converted to Physical machine:

  ```
  Windows could not start because the following file is missing or corrupt:
  <Windows root>\system32\ntoskrnl.exe.Please re-install a copy of the above
  file.
  ```

  Workaround: For information about working around this issue, see KB Article 7012913.

- **826545 - When Migrate undiscovers a machine, the machine node shown on the ESX host is not undiscovered:** When you undiscover a workload, it displays as such in the Migrate client, but the ESX host shows that the node is not undiscovered.

  Workaround: Undiscover the workload on the ESX host, then refresh the ESX host.

- **839329 - Attempt to retrieve data from VMware vCenter Server failed with the following exception:** `Permission to perform this operation was denied.` This problem can be corrected by following the procedures to define VMware Roles with tools as described in “Using Tools to Define VMware Roles” in the *PlateSpin Migrate 12.0 User Guide*.

- **843431 - Attempting to boot from Hard Drive (C:) - Error loading operating System. MBR is corrupted.** This problem can be corrected by running the `./BcdEditor /fixboot` command in the LRD.

  See also KB Article 7014709.

- **859440 - V2P conversion hangs at the configuring operating system step.** When there are multiple boot options in the firmware and the hard disk is not the first boot device in the boot options list, the target machine does not boot from hard disk and conversion hangs.

  Workaround: In the boot options of the physical machine, change the boot order so that *Hard Drive* is the first option, then restart the machine.

  See also KB Article 7014623.

- **864325 - Windows 8.1 workloads converting UEFI to BIOS fail to convert at the "sending files" step.** The default OEM installation of Windows 8.1 (UEFI) creates a recovery partition with insufficient free space, making it impossible to create a Volume Shadow Copy (VSS) for the partition.

  Workaround: Remove or expand the recovery partition. For more information, see KB Article 7014696.

- **864326 - Conversion fails while downgrading from UEFI to BIOS firmware:** The conversion of a UEFI workload (Windows 6.2 and above kernel versions) to BIOS-based machine fails at the *Preparing OS* step because the active partition cannot be found to update boot parameters.

  Workaround: To work around this problem, update the partition type of *Disk as MBR* where the system volume is present in either the source workload or the image. Use Export and Import of UI options or OFX Browser to edit the XML. For a complete list of steps, see KB Article 7014637.

- **865570 - File-based transfer breaks for Windows 2012 R2 UEFI workload:** X2P File-based transfer of Windows 6.2 and above kernel versions fails during the sending and receiving files stage.

  Workaround: To force file transfer to work in this X2P scenario, you need to disable the CPU advanced flags in the firmware: `VT-d`, `VT-s`, `Execute Disable Bit`. For more information, see KB Article 7014698.

- **866467 - Image capture of a Windows 32-bit OS fails:** Migrate expects a folder named `C:\Windows\Boot\EFI` to be present in the source server for exporting content for future use. The folder is not present in Windows 32-bit operating systems earlier than Windows 2008/Vista, so when Migrate exports BCD information to the folder, the operation fails with the error:

  ```
  Error message: Failed: C:\Windows\Boot\EFI
  ```

  Workaround: To work around this issue, you need to create the `C:\Windows\Boot\EFI` folder, then create a Directory Junction under `C:\Windows` for `C:\Windows\System32`. For more information, see KB Article 7014710.

- **875562 - Source machine stays in an "under control" state after offline conversion,:** If you configure the `End State` setting of an offline conversion job as `Restart`, the source machine remains in an "under control" state after the job completes successfully.

  Workaround: Manually restart the source when the conversion completes.

- **878043 - Source machine boot configuration is not restored after offline conversion:** The boot menu of windows source machine is not restored after offline conversion.

  Workaround: After the conversion, the source boot menu displays two options: the Linux RAM disk (LRD) and the Operating System (OS). When you boot for the first time after the conversion, manually select the OS option. This purges the boot menu of the LRD boot option in future boot operations.

- **891690 - Creating and moving a VM under resource pool as a setting is not supported in the CLI tool:** The command line interface (CLI) tool added as a new feature in this release does not currently support moving or creating a *VM under resource pool* as a setting in the `conversion.ini` file.

Workaround: After the conversion, manually move the new machine to the resource pool you want.

- **894623 - Partitions are not mounted to drive letters after conversion:** Following a conversion to Hyper-V 2012 R2, only the "C" drive is visible. Other partitions are not mounted to drive letters.

  Workaround: After conversion, go to disk management and manually assign the drive letters to the partitions.

- **896584 - Adding disk and volume mapping does not work properly for a conversion of a workload to Hyper-V2012 R2:** Booting the Hyper-V VM with LRD returns randomly listed devices in Hard Disk Devices List, whether IDEs, SCSIs, or a mix of both.

  Workaround: The list should contain IDE disks at the top, and SCSI disks following. Use the Migrate Client to customize the list.

  The following scenarios provide examples of the list behavior. ***Assumptions in these scenarios***: The target VM is Generation 1. You need to create three or more virtual disk drives:

  Scenario 1-- IDE to SCSI Behavior

  Given initial setting:

  Disk2: `IDE`
  Disk3: `IDE`

  - If Disk2 changes to `SCSI`, Disk3 changes to `SCSI`. List settings after the modification display as:

    Disk2: `SCSI`
    Disk3: `SCSI`

  - If Disk3 changes to `SCSI`, Disk2 does not change. List settings after the modification display as:

    Disk2: `IDE`
    Disk3: `SCSI`

  Scenario 2-- SCSI to IDE Behavior

  Given initial setting:

  Disk2: `SCSI`
  Disk3: `SCSI`

  - If Disk2 changes to `IDE`, Disk3 does not change. List settings after the modification display:

    Disk2: `IDE`
    Disk3: `SCSI`

  - If Disk3 changes to `IDE`, Disk2 changes to `IDE`. List settings after the modification display:

    Disk2: `IDE`
    Disk3: `IDE`

- **896598 -Redundant disks present after a RHEL 6.2 x64 block migration to Hyper-V 2012 R2:** After performing a successful RHEL 6.2 x64 block-based migration with the `Install Integration Services` option selected, running the `fdisk -l` command shows redundant disks. That is, a single disk is displayed twice as `sda` and `sdb`.

  This is a known Microsoft issue and is being addressed.

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