

PlateSpin Forge 11.3 Release Notes

April 2019



PlateSpin Forge 11.3 includes many new features and enhancements, and resolves numerous previous issues. It also resolves important performance and reliability issues. This version of Forge is a software only release for PlateSpin Server.

The documentation for this product is available in HTML and PDF formats at the [PlateSpin Forge 11.3 Documentation website \(http://www.netiq.com/documentation/platespin-forge-11-3\)](http://www.netiq.com/documentation/platespin-forge-11-3).

For information about how to purchase and download this product, see the [PlateSpin Forge](#) product website.

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1 Documentation Updates

The following changes have been made to this document since the release of PlateSpin Forge 11.3 in April 2018.

1.1 August 2019

Location	Change
Section 4, "Unsupported Platforms or Configurations," on page 6	PlateSpin Forge does not support dynamic disks that contain multiple dynamic volumes (Simple, Striped, Mirrored, Spanned, or RAID). It supports dynamic disks that contain a single dynamic volume.

1.2 April 2019

Location	Change
Section 5.1, “RHEL 6.10 Source Workloads Crash During Incremental Replication,” on page 7	This section is new.

2 What's New

PlateSpin Forge 11.3 includes the following new features and enhancements. See also “[Significant Changes in Behavior or Usage](#)” and “[Unsupported Platforms or Configurations](#)”

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 our products meet all your needs. You can post feedback in the [PlateSpin Forge discussion on Micro Focus Forums](https://forums.novell.com/forumdisplay.php/1336-PlateSpin-Forge) (<https://forums.novell.com/forumdisplay.php/1336-PlateSpin-Forge>), our community website that also includes product notifications, blogs, and product user groups.

- ♦ [Section 2.1, “Rebranding,” on page 2](#)
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2.1 Rebranding

PlateSpin Forge 11.3 has been rebranded as a Micro Focus product. The rebranding does not impact product features, installation paths, and file names. Your existing licenses remain valid.

2.2 Block-Based Transfer for Windows Clusters

Forge 11.3 adds support for block-based data transfer with a driver for Windows Server Clusters that use Fibre Channel SANs. The `WindowsClusterMode` setting must be set to `SingleNodeBBT` in the PlateSpin Configuration settings. Supported Windows Clusters include:

- ♦ Microsoft Windows Server 2016
- ♦ Microsoft Windows Server 2012 R2
- ♦ Microsoft Windows Server 2008 R2

See “[Preparing for Windows Cluster Protection](#)” in the *PlateSpin Forge User Guide*.

2.3 Supported Configurations

PlateSpin Forge 11.3 provides expanded support for the following configurations.

- ♦ [Section 2.3.1, “Windows Workloads,” on page 3](#)
- ♦ [Section 2.3.2, “Linux Workloads,” on page 3](#)
- ♦ [Section 2.3.3, “VM Containers,” on page 4](#)

2.3.1 Windows Workloads

PlateSpin Forge 11.3 adds support for the following source Windows workloads:

Source Workload	Version	Remarks
Microsoft Windows	Windows Server 2016 Windows Server 2016 Clusters	Protection of Microsoft Windows Server 2016 servers and clusters requires VMware ESXi 6.0 or higher. For upgraded systems, support for Microsoft Server 2016 is not available without rebuilding to Forge 11.3 Appliance 4, which provides VMware 6.5 U1.

For information about all Windows workloads supported by PlateSpin Forge, see [“Supported Windows Workloads”](#) in the *User Guide*.

2.3.2 Linux Workloads

PlateSpin Forge 11.3 adds support for the following source Linux workloads:

Operating System	Supported Versions	
Red Hat Enterprise Linux (RHEL)	7.0 to 7.3 6.7 to 6.9	Forge does not support the XFS version 5 (v5) file system on Red Hat Enterprise Linux 7.3 and distributions based on RHEL 7.3. For Red Hat Enterprise Linux 6.7, Oracle Linux 6.7, and CentOS 6.7 workloads with LVM volumes, incremental replication is supported only for the latest available kernel (version 2.6.32-642.13.1.el6.x86_64) for the RHEL 6.7 distribution. This is the same kernel that is used by the RHEL 6.8 distribution. For Red Hat Enterprise Linux 6.8, Oracle Linux 6.8, and CentOS 6.8 workloads with LVM volumes, incremental replication is supported only for the latest available kernel (version 2.6.32-696.20.1.el6.x86_64) for the 6.8 distribution.
SUSE Linux Enterprise Server (SLES)	11 SP4	
Oracle Linux	Distributions based on RHEL.	Precompiled blkwatch drivers are available for UEK and RHCK for Oracle Linux 6.7 and higher.
CentOS	Distributions based on RHEL.	Use RHEL blkwatch drivers.

Operating System	Supported Versions
Open Enterprise Server	2015 SP1
	Use SLES blkwatch drivers for the appropriate distribution.
	For OES 2015 SP1, Forge supports NSS32-bit pools up to 8 TB in size; NSS64-bit pools are not supported.

For a list of precompiled blkwatch drivers for newly supported Linux distributions, see [“Linux Distributions Supported by PlateSpin Forge”](#) in the *User Guide*.

For information about all Linux workloads supported by PlateSpin Forge, see [“Supported Linux Workloads”](#) in the *User Guide*.

2.3.3 VM Containers

PlateSpin Forge 11.3 ships with a VMware 6.5 U1 protection container on Appliance Version 4.

NOTE: For upgraded systems, VMware 6.5 U1 is not available without rebuilding to Forge 11.3 Appliance 4, which provides VMware 6.5 U1. See [Upgrade](#).

For more information, see [“Supported VM Containers”](#) in the *User Guide*.

2.4 Additional Enhancements

PlateSpin Forge 11.3 adds the following enhancements for supported source workloads.

- [Section 2.4.1, “Virtio Devices,” on page 4](#)
- [Section 2.4.2, “Same as Source Storage Mapping Strategy,” on page 4](#)
- [Section 2.4.3, “File Systems,” on page 4](#)
- [Section 2.4.4, “LVM Raw Disks,” on page 5](#)
- [Section 2.4.5, “Configuring NSS Snapshots for NSS Pool Replication,” on page 5](#)

2.4.1 Virtio Devices

PlateSpin Forge 11.3 adds support for virtio devices:

- Storage and network drivers for virtio devices
- Signed drivers for Red Hat Enterprise Linux virtio devices
- Drivers for RHEL KVM virtio devices

2.4.2 Same as Source Storage Mapping Strategy

The Same as Source storage mapping strategy configures storage objects for the target volumes and disks in the destination storage location using the same layout, size, and format as the volumes on the source workload.

2.4.3 File Systems

PlateSpin Forge 11.3 does not support the XFS version 5 (v5), which is available in Red Hat Enterprise Linux 7.3, and distributions based on RHEL 7.3.

2.4.4 LVM Raw Disks

PlateSpin Forge 11.3 adds support for LVM raw disk volumes for Same as Source storage configurations on Linux workloads.

2.4.5 Configuring NSS Snapshots for NSS Pool Replication

PlateSpin Forge 11.3 adds the ability to leverage NSS snapshots for NSS pool replication. For more information, see [“Configuring NSS Snapshots for NSS Pool Replication”](#) in the *User Guide*.

2.5 Security

The PlateSpin Forge 11.3 upgrade for PlateSpin Forge Server supports your custom password for the Microsoft SQL Server system administrator (sa) user of the PlateSpin Database.

After you set up the PlateSpin Forge 11.3 Appliance, we recommend that you set a custom secure password for the Microsoft SQL Server system administrator (sa) user of the PlateSpin Database. See [“Modifying the Password for the SQL Server Express System Administrator User”](#) in the *User Guide*.

Micro Focus is aware of the side-channel analysis vulnerabilities described in CVEs 2017-5715, 2017-5753 and 2017-5754, known as Meltdown and Spectre. Some patches might already have been applied to the shipping Forge Appliance. However, we strongly recommend that you continue to apply security updates that address such threats as recommended by the vendor for the Dell BIOS, the VMware ESXi host, and the Windows Server operating system running on the Forge VM. Consult the vendor documentation for information.

PlateSpin Forge 11.3 updates the GNU C Library (glibc) to address vulnerability [CVE 2015-7547](#) (<https://web.nvd.nist.gov/view/vuln/detail?vulnId=CVE-2015-7547>), a stack-based buffer overflow in the `getaddrinfo()` function in the `glibc` DNS client-side.

PlateSpin Forge 11.3 updates OpenSSL to address vulnerability issues in OpenSSL. For more information see the [OpenSSL project](#) (<http://openssl.org>).

2.6 Performance

PlateSpin Forge 11.3 improves performance and reliability for the following:

- OFX Controller
- Workload configuration tasks in the Web Interface

3 Significant Changes in Behavior or Usage

PlateSpin Forge 11.3 resolved issues that affected the behavior or usage of the following features:

- [Section 3.1, “OFX Controller Heartbeat Startup Delay,” on page 6](#)
- [Section 3.2, “Take Control Memory Size,” on page 6](#)
- [Section 3.3, “NAT IP Pinning,” on page 6](#)
- [Section 3.4, “VSS Snapshot and Backups,” on page 6](#)
- [Section 3.5, “Cluster Node Name Is Case Insensitive,” on page 6](#)
- [Section 3.6, “Temporary OFX.* File Cleanup \(Linux\),” on page 6](#)

3.1 OFX Controller Heartbeat Startup Delay

To avoid discovery failures caused by timing issues, a default heartbeat startup delay of 15 seconds (15000 ms) is set on the OFX Controller. The Controller heartbeat is configurable by adding the `HeartbeatStartupDelayInMS` registry key on the source workload. This registry key is not configured by default. See [“Modifying the OFX Controller Heartbeat Startup Delay”](#) in the *User Guide*.

3.2 Take Control Memory Size

PlateSpin Forge 11.3 improves replication performance by increasing the amount of memory allocated to the replication environment. In the PlateSpin Configuration settings, the default value of the `TakeControlMemorySizeinMB` parameter has been increased from 512 MB to 768 MB.

NOTE: In an upgrade, the parameter value is automatically increased or decreased to the new default value of 768 MB. If you set a higher custom value, you must reset it manually after the upgrade.

3.3 NAT IP Pinning

When a source workload is in a NAT environment, you can configure the target workload to use the source workload's NAT public IP address as the first address to try in a NAT IP-pinning scenario when connecting to the source machine for replication.

3.4 VSS Snapshot and Backups

As a best practice, ensure that no backups run during the narrow window when the Microsoft Volume Shadow Copy Service (VSS) snapshot is created for Windows workload replication. This practice applies for any software that uses VSS to create snapshots, including anti-virus, SQL backups, and so on.

3.5 Cluster Node Name Is Case Insensitive

This release allows cluster node names in mixed case. It treats all node names as case insensitive.

3.6 Temporary OFX.* File Cleanup (Linux)

This release adds a clean-up step to remove the temporary `ofx.*` files from the `/tmp` directory after a replication job runs. You can manually remove the existing `ofx.*` files in the `/tmp` directory.

4 Unsupported Platforms or Configurations

PlateSpin Forge 11.3 no longer supports protection of Windows Servers with the Hyper-V Role.

PlateSpin Forge does not support dynamic disks that contain multiple dynamic volumes (Simple, Striped, Mirrored, Spanned, or RAID). It supports dynamic disks that contain a single dynamic volume.

PlateSpin Forge 11.3 no longer supports the protection of desktop (workstation) platforms for any operating system.

PlateSpin Forge 11.3 no longer supports Forge appliances running on Dell PowerEdge R610 and R710.

5 Known Issues

Micro Focus strives to ensure that our products provide quality solutions for your enterprise software needs. The following issues are being researched for PlateSpin Forge 11.3.

If you need assistance with any issue, visit [Micro Focus Support](#), then select PlateSpin Forge.

5.1 RHEL 6.10 Source Workloads Crash During Incremental Replication

Issue: During incremental replications, a system crash occurs for source Red Hat Enterprise Linux (RHEL) 6.10 workloads running Linux kernel 2.6.32-754.6.3.el6.x86_64. RHEL 6.10 is not a supported workload for this release. A precompiled blkwatch driver is not available. (Bug 1119323)

Workaround: The system crash is a known issue for RHEL 6.10 running Linux kernel version 2.6.32-754.6.3.el6.x86_64. See the following Red Hat Knowledgebase Articles:

- [System crashes at "block/blk-throttle.c:1222" after running veeam agent backup job \(KB 3658111\)](https://access.redhat.com/solutions/3658111) (<https://access.redhat.com/solutions/3658111>)
- [Kernel panic due to Hard LOCKUP in the function blk_throtl_drain\(\) \(KB 3676431\)](https://access.redhat.com/solutions/3676431) (<https://access.redhat.com/solutions/3676431>)

To avoid this issue, do either of the following:

- Follow the [Red Hat Bug Advisory RHBA-2018:3763](https://access.redhat.com/errata/RHBA-2018:3763) (<https://access.redhat.com/errata/RHBA-2018:3763>), which will apply Linux kernel 2.6.32-754.9.1.el6.x86_64 to the source workload.

-OR-

- Use Linux kernel version 2.6.32-754.3.5.el6.x86_64 or earlier on the source workload.

After the crash occurs, your custom blkwatch driver might cause a failure in the normal boot process on the source workload. Remove the blkwatch driver until you have resolved the Red Hat issue. See [How to Disable the blkwatch Kernel Module on Source Linux Workloads \(KB 7006279\)](https://support.microfocus.com/kb/doc.php?id=7006279) (<https://support.microfocus.com/kb/doc.php?id=7006279>).

5.2 Blkwatch Drivers for RHEL 6.8 Workloads with LVM Volumes Fail at Incremental Replication

Issue: Precompiled blkwatch drivers for kernel version 2.6.32-642 on RHEL 6 U8 fail at incremental replication for workloads with LVM volumes. (Bug 1078055)

Workaround: For Red Hat Enterprise Linux 6.8, Oracle Linux 6.8, and CentOS 6.8 workloads with LVM volumes, incremental replication is supported only for the latest available kernel (version 2.6.32-696.20.1) for the 6.8 distribution. Update the kernel, then use the following blkwatch drivers:

Red Hat Enterprise Linux 6 U8

```
RHEL6-RHSA20180169-2.6.32-696.20.1.el6.i686-x86
```

```
RHEL6-RHSA20180169-2.6.32-696.20.1.el6.x86_64-x86_64
```

5.3 Blkwatch Drivers for RHEL 6.7 Workloads with LVM Volumes Fail at Incremental Replication

Issue: Precompiled blkwatch drivers for kernel version 2.6.32-573 on RHEL 6 U7 fail at incremental replication for workloads with LVM volumes. (Bug1018176)

Workaround: For Red Hat Enterprise Linux 6.7, Oracle Linux 6.7, and CentOS 6.7 workloads with LVM volumes, incremental replication is supported only for the latest available kernel (version 2.6.32-642.13.1) for the 6.7 distribution. Update the kernel, then use the following blkwatch drivers:

Red Hat Enterprise Linux 6 U7

```
RHEL6-RHSA201700361-2.6.32-642.13.1.el6.i686-x86
```

```
RHEL6-RHSA201700361-2.6.32-642.13.1.el6.x86_64-x86_64
```

5.4 Linux Partitions Are Created on Opposite Partitions within the Same Disk on Linux Target VM

Issue: On a Linux workload with multiple Linux partitions on the same disk, the partitions are created in the opposite order on the target workload. For example, if the source partition order is AB, the target partition order is BA. (Bugs 988650 and 970822)

Workaround: The order of the Linux partitions on the disk does not impact functionality. The target machine works as expected.

6 Resolved Issues

PlateSpin Forge 11.3 resolves numerous software defects for Forge 11.2 that were reported by customers and partners. See [PlateSpin Forge 11.3 Resolved Issues](#).

7 Upgrading PlateSpin Forge

Refer to the following information to plan your installation or upgrade of PlateSpin Forge 11.3.

- ♦ [Section 7.1, “System Requirements,” on page 8](#)
- ♦ [Section 7.2, “Upgrade,” on page 8](#)

7.1 System Requirements

For upgrade, PlateSpin Forge 11.3 can be applied to a base installation of PlateSpin Forge 11.2 Appliance Version 3, with or without hotfixes or patches applied. See also [“Upgrade”](#).

7.2 Upgrade

To upgrade your PlateSpin Forge Server to PlateSpin Forge 11.3, you must have an existing installation of PlateSpin Forge 11.2 on your Forge VM, with or without hotfixes or patches applied. Other direct updates are not supported. The VMware host is not upgraded. For earlier versions of PlateSpin Forge, you must first upgrade to version 11.2 before you can upgrade to PlateSpin Forge 11.3.

For information about how to upgrade your PlateSpin Forge Server to version 11.3, see the [PlateSpin Forge Upgrade Guide](#).

The Windows Server 2016 support requires VMware 6.5 U1. You can rebuild supported PlateSpin Forge Appliance 3 systems to PlateSpin Forge 11.3 Appliance 4. A rebuild allows you to upgrade the PlateSpin Server to Forge 11.3 and the VMware host to VMware ESXi 6.5 U1. See the [PlateSpin Forge 11.3 Rebuild Guide](#). Contact [Customer Care](#) to obtain the PlateSpin Forge 11.3 Upgrade/Rebuild Kit and a replacement VMware 6.5 license for our system.

8 Licensing Information

For information about activating your PlateSpin Forge license, see “[Activating Your Product License](#)” in the *PlateSpin Forge User Guide*.

9 Previous Releases

For Release Notes documents that accompanied previous PlateSpin Forge releases, visit the [PlateSpin Forge 11.3 Documentation website](#), and go to *Previous Releases* at the bottom of the Table of Contents.

10 Contacting Micro Focus

Our goal is to provide documentation that meets your needs. If you have suggestions for documentation improvements, click **comment on this topic** at the bottom of any HTML page in the English version of the documentation. You can also email Documentation-Feedback@microfocus.com.

For specific product issues, contact Micro Focus Support at <https://www.microfocus.com/support-and-services/>.

Additional technical information or advice is available from several sources:

- ♦ Product documentation, Knowledge Base articles, and videos: <https://www.microfocus.com/support-and-services/>
- ♦ The Micro Focus Community pages: <https://www.microfocus.com/communities/>

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