



FLEXERA SOFTWARE®

FlexNet Publisher®

FlexNet Publisher 2014 (11.12.1) Release Notes

31-March-2014

Revision 01

Contents

New Features.....	1
Special Notes.....	6
Resolved Issues	9
Supported Platforms.....	16
System Requirements for Imadmin	46
Known Issues	47
Deprecated Features and Commands	57
Copyright Notice	58

New Features

This release of the FlexNet Publisher Licensing Toolkit includes the following new features and enhancements:

- [Activation borrow reclaim on trusted storage](#)
- [Improved virtualization support for trusted storage based licensing](#)
- [Options file keywords for activation borrow](#)
- [Determining license source of a feature](#)
- [Dongle updates](#)
- [PACKAGE support with trusted storage](#)
- [Trusted Storage license server automatic reread](#)
- [Vendor daemon hardening](#)

Activation borrow reclaim on trusted storage

Borrow reclaim is supported on trusted storage. The Imremove utility now allows the license administrator to perform borrow reclaim action by removing the deduction records from server trusted storage for the specified client host. A new vendor variable, *ts_ts_borrow_reclaim_percentage*, allows vendors to enable this feature by setting an appropriate value for the borrow reclaim percentage. By default, the reclaim percentage is set to 0 so the reclaim operation is not allowed. Licenses activated or borrowed from the activatable and hybrid license group can be reclaimed. Note that, the ability to reclaim TS-based concurrent licenses remains outstanding in this release.

Imremove has two new options:

- tsborrowstat for current activation-borrow and reclaim information, and
- tsborrow for reclaiming a license from a host.

Number of borrow reclaims available = Total activation borrows * reclaim_percentage - reclaimed-license-count

The reclaimed license count is stored in trusted storage. It can be reset by means of a simple offline transaction, using a dummy request and a response generated with responsegen.exe and the W7_ActivationBorrowReclaimReset.xml response parameter file supplied in the kit.

Improved virtualization support for trusted storage based licensing

Enhancement of binding to differentiate between physical and virtual environments is done and the legacy bind-to-VMID policy is deprecated. For backward compatibility, bind-to-VMID policies are automatically translated to virtual-binding in FNP 11.12.1. FlexNet Publisher automatically uses the appropriate binding elements when running in a virtual environment, if they are available.

A binding item is a deal breaker if, when it changes, trust should be lost regardless of the number of binding items still match. Since all binding identities used in virtual environments are deal breakers, trust will always be lost if any of them change. For more details, refer to *FNP_WP Virtualization Mar2014.pdf*

The binding elements are:

- MAC address- used on physical environments is now used in virtual environments as well and is a deal breaker.
 - For MAC address, binding to the set of MAC addresses which the guest OS considers to be physical. That set of MAC addresses is a dealbreaker - that is, they must all change at once to cause a binding break. Most Guest OS's will have one MAC address. The MAC address allocated by the hypervisor to the Guest is normally interpreted by the Guest OS as a physical MAC address. In general, hypervisors will change a VM's MAC address on clone, but not on a migrate.
- UUID (universally unique ID) - A binding identity used to configure trusted storage on the virtual machine. Previously, the only binding identity used in virtual environments; this is now a deal breaker.
- Microsoft Virtual Machine Generation ID-Is a property of a virtual machine available in Windows Guests on supported hypervisors. Where available, it is used as a binding identity; it is a deal breaker. For more details on Generation ID, refer to *FNP_WP Virtualization Mar2014.pdf*.

Table 1-1 • Supported hypervisor and guest OS combinations.

Hypervisor	Guest	GenerationID
Hyper-V (with Windows Server 2012+ or Windows 8+)	Windows 7, with Hyper-V Integrated Services installed	Yes
	Windows Server 2008, with Hyper-V Integrated Services installed	Yes
	Windows Server 2012+	Yes
	Windows 8, 8.1 +	Yes
	Any Linux	No
VMware (ESXi 5.1+ or Workstation 9+) or Citrix XenServer 6.2+	Windows 7, with Hyper-V Integrated Services installed	No
	Windows Server 2008, with Hyper-V Integrated Services installed	No
	Windows Server 2012+	Yes
	Windows 8, 8.1 +	Yes
	Any Linux	No

VM transition events and binding items.

Table 1-2 • Binding items changes with standard virtual machine transition events

VM Transition Event	Desired Behavior	VMID (VMMWare and XenServer) Change	VMID (Hyper-v) change	MAC change	GenerationID change
Clone	Break	Yes	No	Usually	Yes
Migrate	No break	No	No	No	No
Revert-to-SnapShot	Break	No	No	No	Yes

Live snapshot exploit mitigation

A VM running a trusted storage-based license server was subject to a live snapshot exploit mentioned as follows:

1. Activate 10 hybrid licenses, and start license server
2. Take live snapshot (includes memory snapshot)

3. 10 clients perform activation borrow
4. Revert to snapshot. VD is still running when this operation completes.
5. Go to step 4.

The vendor daemon now polls trusted storage for a GenerationID change every 90 seconds and shuts down if such a change is discovered, with server log messages similar to:

```
12:00:46 (demo) Trusted storage binding change detected! Vendor daemon is being shutdown.
12:00:46 (demo) EXITING DUE TO SIGNAL 65 Exit reason 42
12:00:51 (lmgrd) demo exited with status 65 (Trusted storage binding change detected.)
12:00:51 (lmgrd) Vendor daemon shutdown - trusted storage binding change detected
```

On vendor daemon restart, Trusted storage is untrusted.

Prepped Trusted Configuration

Now that binding entities for physical and virtual environments are automatically selected at run time it is no longer necessary to specify a policy for Prepped Trusted Configurations. Existing prep XML files that contain elements that specify a policy, such as

```
<trustedconfiguration path="publisher\DemoTrustedConfigOut.xml" policy="Physical"/>
<trustedconfiguration path="publisher\DemoTrustedConfigVmidOut.xml" policy="Virtual"/>
```

must be changed to (for example)

```
<trustedconfiguration path="publisher\DemoTrustedConfigOut.xml" />
```

11.12.1 preptool will generate an error if a policy other than "None" is used. Binding for virtual environments cannot be customized.

Options file keywords for activation borrow

ACTIVATION_LOWWATER support for hybrid and activatable licenses

ACTIVATION_LOWWATER option allows license administrator to control the number of hybrid and activatable license that cannot be borrowed or transferred. It works with a hybrid and an activatable license in server side trusted storage and the syntax is

ACTIVATION_LOWWATER entitlementID count (or)

ACTIVATION_LOWWATER entitlementID:FID=fulfillmentID count

Consider a hybrid license with 10 hybrid count and Entitlement ID: ENTL-EZCALC

Options file: ACTIVATION_LOWWATER ENTL-EZCALC 6

This means that only 4 licenses can be borrowed or transferred to another license server.

ACTIVATION_EXPIRY_DAYS a new options file keyword

ACTIVATION_EXPIRY_DAYS option controls the activation request based on the expiration date mentioned in the options file during activation. Publisher controls the activations based on the number of expiration days.

ACTIVATION_EXPIRY_DAYS entitlement ID days

ACTIVATION_EXPIRY_DAYS entitlementID:FID=fulfillmentID days

ACTIVATION_EXPIRY_DAYS has an issue with permanent licenses on Windows. If a client activates a feature from a server, the client will inappropriately override the options file ACTIVATION_EXPIRY_DAYS setting if it asks for a permanent borrow, for example with:

```
appactutil.exe -served -commServer port@localhost -entitlementID ENTL-EZCALC-PERM -
expiration permanent.
```

The workaround is to activate expiring, rather than permanent licenses to server Trusted storage.

Prior to 11.12.1 Java SDKs that parse options file with these new keywords will generate an error, and this will affect enterprise FNM-EA users, since FNM-EA uses the Java SDK to parse the options file. Publishers with enterprise customers who use FNM-EA should therefore avoid these keywords until the enterprise upgrades to a version of FNM-EA that supports them.

Determining license source of a feature

A new CONFIG member *nConfigType* is added to provide the license source which will be one of the following: served-trusted storage, local-trusted storage, served license file, or unserved license file. This member can take one of four values (see, *C/C++ Function Reference guide* and *lmclient.h* file in the kit for more details) *nConfigType* is intended to supersede existing CONFIG members *nTSFeatFlag* and *lc_from_server*.

Dongle updates

With the exception of HASP4 dongles, multiple FLEXID9 dongles are now supported on all supported platforms. Since HASP4 dongles are now EOL by SafeNet, this is the last release where we support them.

PACKAGE support with trusted storage

Previously we did not support PACKAGE with trusted storage, we now support with the following limitations

- OPTIONS=SUITE required
- DUP_GROUP criteria must contain 'V' (LM_DUP_VENDOR)
- Each component name in the package line must be unique
- Neither SUITE_RESERVED, nor SUITE_DUP_GROUP are supported

This change satisfies the use case: A user performing a concurrent check out wishes to check out all features in the fulfillment record together at once.

Trusted Storage license server automatic reread

When an update of license in server trusted storage is performed by means of an activation utility such as servercompranutil, the vendor daemon needs to reread trusted storage in order to update its license cache. Previously, the license administrator would need to do one of the them: run *lmreread*, restart the vendor daemon, or wait until midnight in order for an automatic reread to occur.

Now, a new vendor variable, `Is_ts_update_poll_interval` (value in minutes) causes the vendor daemon to poll for license state change flag in trusted storage. If the flag is dirty, the vendor daemon will perform an automatic reread. By default, this poll interval is set to 10 minutes. When the publisher sets the poll interval to 0, the server trusted storage license update is detected by the vendor daemon only at midnight.

Automatic reread has been successfully tested with activation of new licenses, upgrades and returns. However, some issues exist when server trusted storage becomes untrusted due to a binding break. (IOA-000124628, IOA-000124599):

1. Best practice for the first successful activation transaction after trusted storage becomes untrusted (repair, reinstall or new activation) is to restart the vendor daemon after the transaction successfully completes, or to complete the transaction with the vendor daemon shut down. If this best practice is not followed, a bug may manifest where new or repaired fulfillments inappropriately appear untrusted until the vendor daemon is restarted.
2. In addition, after the first successful transaction, the vendor daemon may restart once in the next hour, with a “`Lost connection to lmgrd, heartbeat timeout expired, exiting`” message in the server log. This restart, although unnecessary, is benign.

Vendor daemon hardening

Various changes have been made to the vendor daemon to mitigate DoS attacks from message fuzzing tools.

These include:

1. Checking that reread and shutdown messages come only from the local host. This is because these messages are always meant to be routed via `lmgrd` or `lmadmin`, which always run on the same host as the vendor daemon.
2. Establishing a rolling protocol between `lmgrd` / `lmadmin` and the vendor daemon that results in an extended payload in reread and shutdown messages for verification by the VD.
3. Requiring messages that originate from utilities such as `lmutil`, `lmstat`, `lmremove`, `lmnewlog` and `lmswitch` to be of the latest version type (`CommRev4`). `CommRev4` messages have an improved checksum compared to `CommRev3` messages.
4. Fixing some specific instances of bugs in the VD where unexpected `CommRev3` message permutations would cause a crash.
5. Introducing a vendor variable, `Is_use_exclusive_commRev4`, which when enabled causes the VD to drop any `CommRev3` message for which there is a `CommRev4` equivalent. This vendor variable is disabled by default, because enabling it means the VD cannot support clients with a FNP version < 11.9.

Special Notes

The following items are of special interest in this release.

Imbind is no longer packaged in Windows and Linux kits

From 11.12.1, the Imbind folder and binaries have been removed from the Linux and Windows FNP kits. Instead, Imbind can be downloaded as a separate package.

IPv6 kits are now the default download for customers

Dual-interface-supporting IPv6 kits are now the default download for FlexNet Publisher customers. IPv4 kits are still available on request.

Additional Installation requirements for FLEXID9 Dongles

In 11.12.1 FlexNet Publisher now dynamically links to the third-party FlexNetID 9 libraries on Linux and Mac OS X (in order to support the multiple dongles feature). Consequently, new Flexera-specific shared library (`libhasp_linux_i686.so`, `libhasp_linux_x86_64.so` and `hasp_darwin.dylib`) has been provided to Flexera by the third-party provider for FlexNetID 9. These shared library are separate to the generic FlexNetID 9 dongle-driver installers provided by the third-party provider. Therefore, In addition to supplying the FlexNetID9 installers contained in `Sentinel_LDK_RedHat_and_SuSE_RPM_Runtime_Installer.tar.gz` and `Sentinel_Runtime_Installer_Scripts.dmg` to users, publishers should also package either `libhasp_linux_i686.so`, `libhasp_linux_x86_64.so` and `hasp_darwin.dylib` with their Mac or 32 or 64-bit linux licensing application.

On a 64-bit linux system, publishers using the `x64_lsb` kit should copy `libhasp_linux_x86_64.so` to `/usr/lib`.

On a 32-bit linux system, publishers using the `i86_lsb` kit should copy `libhasp_linux_i686.so` to `/usr/lib`.

On a Mac OS X system, publishers using the `universal_mac` kit should copy `hasp_darwin.dylib` to `/usr/lib`.

The FLEXID9 shared objects for Windows have been updated since FNP 11.12.0. A reminder that they need to be copied as follows:

On 32-bit Windows systems, publishers using `x64_n6` kit must copy `haspsrm_win32.d11` to `C:\Windows\System32`.

On 64-bit Windows systems, publishers using the `i86_n3` kit must copy `haspsrm_win32.d11` to `C:\Windows\SysWOW64` and copy `haspsrm_win64.d11` to `C:\Windows\System32`.

For more details refer to *FlexNet Publisher Dongle Installation Guide* and also see [Dongle Issues](#).

Unsigned Windows executables

Executables in the Windows FlexNet Publisher kit that can be rebuilt by building `makefile` or `makefile.act`, including those that are modified when `preptool` is run, are not signed. The following is a list of Flexera-owned executables that are not currently signed:

Executables from the Windows FNP kit:

- `preptool` (this is not signed because of prep-the-preptool functionality)

- *_libFNP.dll (this dll is not signed because preptool modifies it.)

The following is a list of third-party executables, included in the Windows kits, which are not signed

- Setup.exe, as extracted from FLEXID10_Windows_v6_11_*.zip

Resolved Issues

This release of the FlexNet Publisher Licensing Toolkit resolves the following issues. (Numbers in parentheses indicate the Flexera Software issue reference number.)

- [General Issues](#)
- [Dongle Issues](#)
- [Issues Specific to License-File-Based Licensing](#)
- [Issues Specific to Trusted-Storage-Based Licensing](#)
- [Imadmin and Imgrd Issues](#)
- [Platform-Specific Issues](#)
- [Imtools Issues](#)
- [Imstat issues](#)

General Issues

Performance Improvement

A small performance improvement (compared to 11.12.0.0) has been made where a client consecutively checks out multiple features from a license server, with a single job handle. (IOB-000063576)

Common Vendor Daemon Stability

Previously, the Common Vendor Daemon crashed when multiple increment lines having the same feature names were present in the license file. Variations of this issue manifested on Linux and AIX platforms. The issue has been resolved. (IOA-000085089)

MD option no longer needed when building against FlexNet Publisher's static libraries.

Prior to FNP 11.9, to link your flexenabled application to the multithreaded DLL version of the Windows C runtime library had to build the kit makefile with MD=1. From 11.9, FlexNet Publisher's static libraries are built in a C-runtime-library agnostic manner (using the /ZI compiler flag), which means that customers no longer need to build with MD=1. (IOA-000083862)

lc_cryptstr() error handling argument update

Previously free() was used to free the memory of an argument in lc_cryptstr() in lmsign.c file. Now it is made consistent with lmcrypt.c file by using lc_free_mem(). (IOA-000083716)

False positive virtual detection

Previously, in a small number of cases, Amazon EC2 (and therefore virtualization) has been erroneously detected on physical systems. This issue has been resolved. (IOA-000083595)

Java client erroneously checks out a feature from a returned shortcode license

Previously, a Java client could inappropriately check out a license after the license had been returned via a shortcode transaction. This is because the Java toolkit did not check to see if the fulfillment record was disabled. The Java toolkit now checks for the disabled flag on fulfillment records. (IOB-000063221)

Imcrypt returns signature when the first feature is a string

Previously, when LM_CRYPT_ONLY was set, it returned "0", when SIGN=0 is in the license file. Now, a signature is generated and returned for the first FEATURE in license file, as it is documented for LM_CRYPT_ONLY. (IOC-000090223)

Bug with using quotes around the license path set to <VENDOR>_LICENSE_FILE

Previously, using quotes on a license path being set to the <VENDOR>_LICENSE_FILE environment variable would cause the update of the environment variable to fail. The component paths of <VENDOR>_LICENSE_FILE environment variable will now clear any surrounding double quotes, if they exist, before being used for setting the license path. (IOB-000063094)

Borrow cache persists after reread or restart

Inclusion of new license file no longer clears the borrow cache while restarting the license server. (IOA-000080706)

Imcrypt crash issue

Imcrypt crashed on windows when run without any command line arguments. Now, Imcrypt does not crash when run without any command line arguments. (IOA-000080191)

Inconsistent checkout behavior with package names

Previously, a package name could be inappropriately checked out from an unserved license, as if it were a feature. Now, like served licenses, unserved licenses will not allow checkout of a package name. (IOA-000079429)

Fetching the teamed interface

Earlier the teamed interface was not getting detected on Windows Server 2012. Now teamed NIC interface is identified on Windows and its MAC address is displayed. (IOC-000089901)

Reading license files with the% character in the filename

In the prior release an issue with reading license files with the% character in the filename has been resolved. (IOA-000079209)

Delay in starting vendor daemon after a Imadmin restart

Previously on non-windows platforms, when Imadmin is restarted, the vendor daemon was delayed in starting. The vendor daemon startup delay has now been substantially reduced. (IOC-000089822)

Segmentation error on lmflex in ppc64_lsb and ppc_lsb kits

Using the VM_PLATFORMS keyword in a PACKAGE line in a license file caused instability on some platforms which FlexNet Publisher did not support for virtualization. Supported virtualization platforms (i86_n3, x64_n6, i86_lsb, & x64_lsb) do not display this behavior. This issue is fixed. (IOA-000083140)

Issue with vendor string pooling of features.

This issue occurs when

1. Multiple INCREMENT lines have the same feature
2. Vendor string is used as a pooling criteria (ls_compare_vendor_on_increment = 1)
3. More than one version of the feature is available

When all the above conditions are true then in some cases one instance of the feature could be lost. One way this could manifest was for lc_next_conf to 'skip' an instance of the feature. In these cases, one way to work around this was to use the SORT keyword in the license file. This issue has now been resolved.

(IOC-000089954, IOA-000079927)



Note • when using vendor string as a pooling criteria in TS or license files, the following is required

1. The vendor variables ls_compare_vendor_on_increment and ls_compare_vendor_on_upgrade need to be set to 1
2. Clients that wish to check out features according to vendor string need to use a client-side checkout filter - refer LM_A_CHECKOUTFILTERLAST_EX. Additionally, the desired vendor string must be passed to the checkout filter using the LM_A_VENDOR_CALLBACK_DATA attribute.



Note • when using vendor string as a pooling criteria across multiple TS fulfillment records, then each instance of the INCREMENT line containing the same feature must have a unique SIGN= signature. This can be accomplished by ensuring the vendor string is unique (for example, by suffixing the vendor string with the FulfillmentID generated by FNO), or by using a unique value in a separate keyword which affects the signature. The NOTICE keyword is recommended if the latter option is chosen.

Dongle Issues

Automatic Heartbeat detects when dongle is removed

when an uncounted node-locked license is used and the dongle is removed after a checkout, the feature failed to throw an error code -9. This issue has been resolved. (IOB-000063549)

FLEXID9 installer is compatible with Windows 8.1

FLEXID9 dongle driver has been upgraded to v6.60 from v6.5, which is supported on Windows 8.1 and Windows Server 2012 R2. (IOA-000082842)

Resolved delay in checkout of FLEXID9 Dongle

Delays introduced in 11.12.0.0 in checking out a license over a remote desktop connection on Windows and in returning an error when the dongle is not present have been resolved. (IOB-000063273 and IOB-000063375)

FLEXID9 Hasp4 Dongles were not being recognized on Windows 64-bit clients

FLEXID9 Hasp4 dongles were not being recognized on Windows 64-bit clients in remote desktop environments in v11.12.0 release is resolved and the FLEXID9 Hasp4 dongles are recognized by the Windows 64-bit clients in V11.12.1. (IOB-000063269)

No error message is displayed when FLEXID9 is connected to three server

Earlier, an error message “dongle not connected” was displayed in server log when FLEXID9 is used in three server setup. This issue is resolved and no error is displayed. (IOA-000059836)

Issues Specific to License-File-Based Licensing

License file reread when AUTOMATIC_REREAD is OFF

Previously, when a feature was due to be enabled the next day, the license file and options file were reread automatically at midnight even if **AUTOMATIC_REREAD** was **OFF**. This issue has been resolved. (IOB-000063577)

Borrow checkout functionality Issue is resolved.

License server was checking out additional licenses during borrow check-out with DUP_GROUP and OPTIONS=SUITE enabled. The issue is now resolved. (IOB-000063148)

No more error -77 while crypting

Earlier Imcrypt and Imdiag used to report error -77 while crypting the vendor line when there was a space in the path of vendor daemon and options file. (IOC-000090183)

Queuing of reserved licenses

Previously, when a check-out request for a reserved license was queued, it continued to be in queue even after the previously checked-out license was returned to the server. This behavior occurred when SUITE_DUP_GROUP option was set. The issue is now resolved. (IOC-000090157)

Misleading DENIED message in server log

License servers using license files with PACKAGE and an ethernet-based hostid on the SERVER line generated a misleading message in the server log when a client checks out a package feature, indicating the checkout has been denied which in fact succeeded. This issue is resolved. (IOA-000081297)

Issues Specific to Trusted-Storage-Based Licensing

Environment dependent binding on trusted storage

The issue where the licenses served by an enterprise License Server running in a virtual environment to a client running in a physical environment lost trust immediately which is resolved by automating environment dependent binding in this release. (IOB-000063062)

Dynamic determination of FlexNet activation library path

A prepped executable locates the activation library component (libFNP.dll) as per the operating system default behavior. This may be modified by configuration file settings used by the preptool (see *Programming Reference for Trusted Storage-Based Licensing*). If the location (or relative location) of the library component is not known at build-time, the full path to the application-specific activation library component may be overridden at run-time by setting the environment variable "FLEXNETPUBLISHER_RUN_TIME_PATH". (IOB-000061947)

Checking signatures of INCREMENT lines from client-side Trusted Storage

A new client attribute LM_A_CHECK_LOCAL_TS_SIGNATURE is introduced to enable or disable the signature check of the local trusted storage license. (IOB-000062537). Also see [Known Issues](#) section [Issues Specific to Trusted-Storage-Based Licensing](#) for details on (IOA-000084970 and IOC-000090943) issues

Generating an activation request with actual value

Previously, executing an online activation request using the appactutil utility could generate a false error message, even though the activation was successful. The false error message has now been removed. (IOA-000084213)

Information on activatable borrowed licenses is displayed

Previously, license server was unable to cache the details or status of activatable borrowed licenses when you restart the server. Enhancement is made where you can fetch the status or information on activatable borrowed or hybrid license after a server restart. Previously the following are the actions:

1. Activate 10 hybrid 'ADD' licenses to server TS
2. Start the license server and Activate borrow one license from a client
3. `lmstat -a -c counted.ltc`, now gives Users of ADD: (Total of 10 licenses issued; Total of 1 license in use)(+ details of host that activated license)
4. Restart license server
5. `lmstat -a -c counted.ltc` now gives Users of ADD: (Total of 9 licenses issued; Total of 0 license in use) (and details of host that activated license are lost)

Activation borrow information now survives license server restart. This was a fix in the license server, so affects `lmstat` and `lmadmin` (IOB-000060780)

Imadmin and Imgrd Issues

Security vulnerability issue

The security vulnerability caused due to Imadmin server.xml file possibly getting modified to contain external DTD references, has been fixed. (IOA-000080555)

Non-English characters are accepted in Imadmin command-line

Imadmin now allows command-line arguments like “-defaultAdminGroup” to contain non-English characters (for example, Russian characters). (IOA-000079429)

Imadmin port selection enhancements

These enhancements are intended to

These enhancements are intended to

1. Help identify a potential web server port selection conflict when saving a Imadmin configuration. If, on configuring a web server a web port is (accidentally) specified that is already in use and unavailable, then a warning message will be displayed on the Imadmin GUI. It may be that the port conflict is temporary, therefore Imadmin still allows the saving of such a configuration.
2. Log messages which will help root-cause Imadmin start-up failure due to web server port-conflicts. If a port conflict for web server exists when Imadmin is started, apache throws a port-conflict error which is redirected into the web.log, where all apache messages or errors are usually found in Imadmin. To recover from this, restart Imadmin by specifying an available port for webserver using the command-line option –webport.
3. Help avoid runtime Imadmin's license server port conflict with Imgrd. If Imgrd is started before Imadmin on the same machine, and both server managers search for the default port, Imadmin will now select a different port to Imgrd

(IOA-000077202 & IOA-000083904)

Imadmin handing euro characters

Imadmin is now able to handle domain user names and domain admin groups containing Euro characters, even when the user accounts are created using lowercase Euro characters. (IOA-000070731)

Warning message is removed from logs

The Imadmin logs now do not show the following confusing message during startup. “Imadmin: Could not reliably determine the server's fully qualified domain name, using XXX.XXX.XXX.XX for Server Name”. (IOC-000087335)

Delay in shutdown is reduced

Earlier there used to be some delay when Imadmin is shutdown which is now fixed by reducing the delay in shutdown of Imadmin on non-Windows platforms, by about 10 seconds, to around 20-30 seconds. The delay in the shutdown of Imadmin cannot be totally avoided as the cleanup of resources and threads, (which is necessary), will take at least a few seconds.

The delay is also due to the need to wait and ensure that an acknowledgement is sent back to the browser client, (that requests a shutdown of the License Server), before the Imadmin process exits. On a safer note use a sleep interval of around 30 seconds between stop and start of Imadmin. The reduction in delay, from the previous release of Imadmin (11.12.0), is about 9 seconds. (IOC-000087216 and IOC-000087147)

Update on command line argument of Imadmin

The Imadmin now assumes the default value of the “-root” argument to be the location of the Imadmin binary unless it is explicitly overridden by a command-line argument. (IOC-000087031)

Platform-Specific Issues

Linux

LSB Compliance

FlexNet Publisher requires a minimum of LSB 4.0 compliance. Some Linux systems may require the explicit installation of an appropriate LSB package in order to achieve LSB compliance. Flexera Software does not qualify these Linux distributions. (IOA-000069638)

Mac OS X

Clean files on MAC platform

Earlier make -f makefile.act clean command did not clear all the files on MAC platform. (IOA-000084441)

Supporting LLVM in OS X 10.8 SDK

LLVM with the OS X 10.8 SDK is now supported. Additionally, an upgrade of Xcode to v5.0 has been tested with OS X 10.8 SDK. Refer to [Known Issues](#) > [Platform-Specific Issues and limitations](#) for details on limitation. (IOC-000090146)

Windows

Vendor daemon restarts on 8.1 or Windows Server 2012 R2

Previously, if the Vendor daemon was built with VS2012, it could crash and restart when run on Windows 8.1 or Windows Server 2012 R2. This issue has been resolved. (IOA-000083293)

Security Vulnerability on Windows

A potential security vulnerability, due to an Imadmin service getting installed with an unquoted service binary path has now been fixed. (IOB-000063356 and IOC-000090342)

Supporting Windows Server 2012 R2

FlexNet publisher supports Windows Server 2012 R2. (IOC-000090145)

License server service delay is minimized on Windows

Earlier license server and vendor daemon used to take more time during startup service which is now minimized or improved. (IOC-000089989)

Solaris

Bad ELF section type in libsb.a on Solaris 64-bit Intel

When building the makefile or makefile.act of the x64_sun10 kit using compilers such as the Sun C 5.10 or 5.11 compiler, the following linker error had been reported by some customers:

```
ld: fatal: file libsb.a(a100.o): section [6].eh_frame: section type is SHT_PROGBITS:
expected SHT_AMD64_UNWIND
```

This issue is resolved and the object files inside libsb.a has eh_frame as SHT_AMD64_UNWIND. (IOB-000063173)

Imtools Issues

Imtool supports multibyte characters

Earlier Imtools was unable to handle multibyte characters on any text editors which is now supported and handled. The fonts may differ on different machines. (IOB-000063245)

Imtool reread failure

Previously, if the <VENDOR>_LICENSE_FILE environment variable was not set, Imtools would fall back to a registry key value when looking for the path of the license server to reread. However, because Imtools is limited to rereading one server at a time and the registry key could contain multiple server paths, this could lead to attempting to reread the wrong server. Now, Imtools falls back to the license file that was used when installing the license server service. (IOB-000063131)

Imstat issues

Imstat license count

Previously, Imstat reported invalid license count when two license files contained the same feature names. Imstat now displays the exact license count based on the actual number of pools. (IOA-000076653 and IOC-000089951)

Displaying Imstat RESERVATION messages

Previously, Imstat did not display RESERVATION information when OPTIONS=SUITE_RESERVED was used in the license file. This has been resolved. (IOA-000081676)

Supported Platforms

The following sections describe the platforms supported by the FlexNet Publisher Licensing toolkits:

- [C/C++ Toolkits](#)
- [Java Toolkits](#)
- [Detailed Platform Information](#)
- [Toolkits That Support Prepped Trusted Storage](#)
- [Virtualization Support](#)
- [Cloud Support](#)

For the updated list of supported platform: <http://www.flexerasoftware.com/support/additional-support/end-of-life/flexnet-publisher.html>

C/C++ Toolkits

The following platforms are supported. See the [Detailed Platform Information](#) section for more information about each platform.

Table 2 • C/C++ Toolkit Platform Support


Platform Type	Hardware Type	Operating System
AIX 32-bit	PowerPC	<ul style="list-style-type: none"> • AIX 5.3 ML 007 • AIX 6.1 ML 006 • AIX 7.1 ML 000
AIX 64-bit	PowerPC	<ul style="list-style-type: none"> • AIX 5.3 ML 007 • AIX 6.1 ML 006 • AIX 7.1 ML 000
HP-UX 32-bit	HP (PA-RISC) 32-bit	HP-UX 11i v3
HP-UX 64-bit	HP (PA-RISC) 64-bit	HP-UX 11i v3
HP-UX 64-bit	Intel Itanium	HP-UX 11i v3
Linux 32-bit	x86	<p>Certified with the following:</p> <ul style="list-style-type: none"> • RedHat Enterprise Linux 5, 6 • SUSE Linux Enterprise 10, 11  <hr/> <p>Note • Refer to the LSB 4.0 Compliance Issues section for a list of LSB3.0 and LSB4.0 non-compliance issues.</p>

Table 2 • C/C++ Toolkit Platform Support






Platform Type	Hardware Type	Operating System
Linux 64-bit	x86-64	<p>Certified with the following:</p> <ul style="list-style-type: none"> • RedHat Enterprise Linux 5, 6 • SUSE Linux Enterprise 10, 11  <hr/> <p>Note • Refer to the LSB 4.0 Compliance Issues section for LSB compliance notes.</p>
Linux PPC 32-bit	PowerPC	<p>Certified with the following:</p> <ul style="list-style-type: none"> • RedHat Enterprise Linux 6 • SUSE Linux Enterprise 10, 11  <hr/> <p>Note • Refer to the LSB 4.0 Compliance Issues section for LSB compliance notes.</p>
Linux PPC 64-bit	PowerPC	<p>Certified with the following:</p> <ul style="list-style-type: none"> • RedHat Enterprise Linux 5, 6 • SUSE Linux Enterprise 10, 11  <hr/> <p>Note • Refer to the LSB 4.0 Compliance Issues section for LSB compliance notes.</p>
Linux 64-bit	Itanium	<ul style="list-style-type: none"> • RedHat Enterprise Linux 5
Mac OS X 32-bit and 64-bit	<ul style="list-style-type: none"> • x86 • x64 	<ul style="list-style-type: none"> • Mac OSX 10.9 (x86,x64) • Mac OS X 10.8 (x64) • Mac OS X 10.7 (x64) • Mac OS X 10.6 (x86, x64).

Table 2 • C/C++ Toolkit Platform Support

Platform Type	Hardware Type	Operating System
Microsoft Windows 32-bit	x86	<ul style="list-style-type: none"> Windows Server 2008, including SP1 and SP2 Windows 8 Windows 8.1 Windows 7, including SP1 Windows Vista SP2  <p>Note • It is a best practice to run license servers on a server based OS.</p> <p>Refer to Platform-Specific Issues and limitations known issues for Windows and Issues Specific to Trusted-Storage-Based Licensing sections</p>
Microsoft Windows 64-bit	x64	<ul style="list-style-type: none"> Windows Server 2008, including SP1, SP2, and R2 Windows 8 Windows 8.1 Windows 7, including SP1 Windows Vista SP2 Windows Server 2012 Windows Server 2012 R2  <p>Note • It is a best practice to run license servers on a server based OS.</p> <p>Refer to Platform-Specific Issues and limitations known issues for Windows and Issues Specific to Trusted-Storage-Based Licensing sections</p>
Microsoft Windows 64-bit on Itanium	Intel Itanium	Windows Server 2008, including SP2 and R2
Red Hat Linux 64-bit on Itanium	Intel Itanium	Red Hat Enterprise Linux 5.0 (now in limited support)
Solaris 32-bit	SPARC 32-bit	Solaris 10 and 11
Solaris 32-bit	x86	Solaris 10 and 11
Solaris 64-bit	SPARC 64-bit	Solaris 10 and 11
Solaris 64-bit	x86-x64	Solaris 10 and 11

Java Toolkits

The following platforms are supported. See [Java Standard Edition](#) in [Detailed Platform Information](#) for more information about this platform.

Table 3 • Java Toolkit Platform Support

Platform Type	Hardware Type	Version
Oracle Java Development Kit	● Solaris SPARC 32-bit	Java Standard Edition 1.6 and 1.7
	● Solaris SPARC 64-bit	
	● Solaris x86	
	● Solaris x64	
	● Windows x86	
	● Windows x64	
	● Linux x86	
	● Linux x64	

Detailed Platform Information

The following sections list the operating systems and their associated hardware platforms supported by FlexNet Publisher. Each platform entry contains the following information:

- **Platform name**—The name that identifies this platform when used with the PLATFORMS keyword in a license file.
- **Package identifier**—The name of the toolkit package on Flexera Software's download site.
- **Tested compiler**—The compiler and version with which this package was tested. Choose a compiler for your development and build environment that is compatible with the one listed.
- **Notes**—Additional platform-specific notes that are useful for developing your FlexEnabled product.
- **Security functionality**—Denotes the level of security functionality your toolkit supports. This information is useful when you implement trusted storage-based licensing in your product. See *Trusted Storage-based Licensing Programming Reference* for complete details.
- Click a link to access platform details:

- | | | |
|---|--|---|
| ● AIX 32-bit | ● Linux 32-bit | ● Microsoft Windows 64-bit on Itanium |
| ● AIX 64-bit | ● Linux 64-bit | ● Red Hat Linux 64-bit on Itanium |
| ● HP-UX 32-bit | ● Mac OS 32-bit and 64-bit | ● Solaris 32-bit |
| ● HP-UX 64-bit | ● Microsoft Windows 32-bit | ● Solaris 32-bit |
| ● Java Standard Edition | ● Microsoft Windows 64-bit | ● Solaris 64-bit |

AIX 32-bit

The following lists information about FlexNet Publisher support for AIX 32-bit machines:

Platform Name	ppc_u
Package Identifier	ppc_u5 (on PowerPC™)
Tested Compiler	PowerPC cc (IBM XLC) 9.0 and 11.1
Notes	<ul style="list-style-type: none">• 1madm.in is supported in this toolkit.• Short code transactions are not supported.• Prepped Trusted Configuration is not supported.• The AIX FlexNet Publisher client libraries are PIC by default; therefore, only one version of these libraries is provided in the toolkit.• Java SDK is not supported.
Toolkit Functionality	Licensing based on license files or trusted storage.
Security Functionality	No support for tamper-resistant applications. The toolkit is labeled as <i>notr</i> .

AIX 64-bit

The following lists information about FlexNet Publisher support for AIX 64-bit machines:

Platform Name	rs64_u
Package Identifier	rs64_u5 (on PowerPC™)
Tested Compiler	PowerPC cc (IBM XLC) 9.0 and 11.1
Notes	<ul style="list-style-type: none">• 1madm in is supported using its 32-bit binary. (No 1madm in 64-bit binary is available.)• Short code transactions are not supported.• Prepped Trusted Configuration is not supported.• You must use ar -X64 and strip -X64 on this platform.• The AIX FlexNet Publisher client libraries are PIC by default; therefore only one version of these libraries is provided in the toolkit.• Java SDK is not supported.
Toolkit Functionality	Licensing based on license files or trusted storage.
Security Functionality	No support for tamper-resistant applications. The toolkit is labeled as <i>notr</i> .

HP-UX 32-bit

The following lists information about FlexNet Publisher support for HP-UX 32-bit machines:

Platform Name	hp700_u
Package Identifier	hp700_u11i
Tested Compiler	HP 32-bit PA-RISC B.11.11.23 HP C Compiler
Notes	<ul style="list-style-type: none">• 1madm:n is not supported in this toolkit.• Short code transactions are not supported.• Prepped Trusted Configuration is not supported.• It is no longer recommended that you use the Ethernet address as a hostid type. It may fail on some HP_UX 11.x systems.
Toolkit Functionality	Licensing based on license files or trusted storage.
Security Functionality	No support for tamper-resistant applications. The toolkit is labeled as <i>notr</i> .

HP-UX 64-bit

The following lists information about FlexNet Publisher support for HP-UX 64-bit machines:

Platform Name	<ul style="list-style-type: none">● hp64_u (on HP PA-RISC 64-bit)● it64_hp (on Intel® Itanium®)
Package Identifier	<ul style="list-style-type: none">● hp64_u11i (on HP PA-RISC 64-bit)● it64_hp11i (on Intel Itanium)
Tested Compiler	<ul style="list-style-type: none">● HP 64-bit PA-RISC B.11.11.23 HP C Compiler● Intel Itanium HP C/aC++ B3910B A.06.20
Notes	<ul style="list-style-type: none">● lmadm is not supported in this toolkit.● Short code transactions are not supported.● Prepped Trusted Configuration is not supported.● On Intel Itanium, use lmhostid utility to determine the hostid. This returns the machine identification and is equivalent to the identification returned by the HP_UX command getconf CS_PARTITION_IDENT. For example: >lmhostid >The FlexNet Licensing host ID of this machine is "ID_STRING=9c788319-db72-d411-af62-0060b05e4c05" Older methods of obtaining the hostid that return the Ethernet address are still supported, but may fail on some systems. The older methods include: >uname -i (returns decimal hostid) >lmhostid -long (returns hexadecimal hostid)● Multi-threaded licensing libraries are available on Intel Itanium.
Toolkit Functionality	Licensing based on license files or trusted storage.
Security Functionality	No support for tamper-resistant applications. The toolkit is labeled as <i>notr</i> .

Java Standard Edition

The following lists information about FlexNet Publisher support for Java Standard Edition machines:

Platform Name	java_
Package Identifier	Not applicable
Tested Compiler	JDK 1.6 and 1.7
Notes	<ul style="list-style-type: none">• Implements the FlexNet Licensing for Java client library only.• Requires a C development environment.• Requires tamper-resistant licenses (TRL) to be enabled
Toolkit Functionality	Licensing based on license files or trusted storage.
Security Functionality	No support for tamper-resistant applications. The toolkit is labeled as <i>notr</i> .

Linux 32-bit

The following lists information about FlexNet Publisher support for Linux 32-bit machines:

Platform Name	<ul style="list-style-type: none">• i86_lsb (on x86)• ppc_lsb (on Power PC)
Package Identifier	<ul style="list-style-type: none">• i86_lsb (on x86)• ppc_lsb (on Power PC)
Tested Compiler	<p>For x86:</p> <ul style="list-style-type: none">• gcc 4.1.2 (RHEL 5.0)• gcc 4.4.4 (RHEL 6.0)• gcc 4.4.6 (RHEL 6.3)• gcc 4.1.2 (SUSE 10)• gcc 4.3.4 (SUSE 11) <p>For PowerPC:</p> <ul style="list-style-type: none">• gcc 4.1.2 (RHEL 5.7)• gcc 4.3.4 (SUSE 11.1)
Notes	<ul style="list-style-type: none">• 1madm.in is supported on x86 only.• Multiple Ethernet hostids are supported.• Short code transactions are supported (RHEL x86 only).• Prepped Trusted Configuration is supported.• Supported virtual machine platforms include: VMware ESX 4.1 and ESXi 4.1, 5.0 and 5.1 VMware Workstation 9.0 Microsoft Windows Server 2008 R2 Hyper-V Microsoft Hyper-V Server 2008 R2 (including SP1) Microsoft Windows Server 2012 Citrix XenServer 6.0, 6.1, and 6.2
Toolkit Functionality	Licensing based on license files or trusted storage.
Security Functionality	Support for tamper-resistant applications. The toolkit is labeled as <i>standard</i> .

Linux 64-bit

The following lists information about FlexNet Publisher support for Linux 64-bit machines:

Platform Name	<ul style="list-style-type: none">• x64_lsb (on x64)• ppc64_lsb (on Power PC)
Package Identifier	<ul style="list-style-type: none">• x64_lsb (on x64)• ppc64_lsb (on Power PC)
Tested Compiler	<p>For x64:</p> <ul style="list-style-type: none">• gcc 4.1.2 (RHEL 5.0)• gcc 4.4.4 (RHEL 6.0)• gcc 4.4.6 (RHEL 6.3)• gcc 4.1.0 (SUSE 10)• gcc 4.1.2 (SUSE 10)• gcc 4.3.4 (SUSE 11) <p>For Power PC:</p> <ul style="list-style-type: none">• gcc 4.1.2 (RHEL 5.7)• gcc 4.4.4 (RHEL 6)• gcc 4.1.2 (SUSE 10)• gcc 4.3.4 (SUSE 11.1)
Toolkit Functionality	Licensing based on license files or trusted storage.
Security Functionality	Support for tamper-resistant applications. The toolkit is labeled as <i>standard</i> .

(table continued on next page)

(table continued from previous page)

Notes	<ul style="list-style-type: none">• For the x64_lsb toolkit, 1madm in is supported using its 32-bit binary. (No 1madm in 64-bit binary is available.)• As a requirement, manually install the Linux 32-bit libraries on RHEL 6.0 (64-bit). (They are not automatically installed with the operating system.) Certain FlexNet Publisher components, such as 1madm in, require these libraries. Refer to the RedHat Enterprise Linux documentation for details.• Multiple Ethernet hostids are supported.• Short code transactions are not supported.• Prepped Trusted Configuration is supported (x64_lsb only).• Supported virtual machine platforms include: VMware ESX 4.1 and ESXi 4.1, 5.0, and 5.1 VMware Workstation 9.0 Microsoft Windows Server 2008 R2 Hyper-V Microsoft Hyper-V Server 2008 R2 (including SP1) Microsoft Windows Server 2012 Citrix XenServer 6.0, 6.1, and 6.2• To take advantage of enhanced anchor security, see Configuration for Increased File-Anchor Security on Linux.
Toolkit Functionality	Licensing based on license files or trusted storage.
Security Functionality	Support for tamper-resistant applications. The toolkit is labeled as <i>standard</i> .

Mac OS 32-bit and 64-bit

The following lists information about FlexNet Publisher support for Mac OS 32- and 64-bit machines:

Platform Name	<ul style="list-style-type: none">• x86 - i86_mac• x64 - x64_mac
Package Identifier	universal_mac10 (on x86 and x64)
Tested Compiler	<ul style="list-style-type: none">• gcc 4.0.1• gcc 4.2.1• llvm-gcc-4.2• llvm-g++-4.2• clang-425.0.28• clang-163.7.1• For 10.9 apple LLVM version 5.0 (clang-500.2.79) (based on LLVM 3.3svn)
Notes	<ul style="list-style-type: none">• lmadm runs under both the x86 and the x64 Mac architectures using its 32-bit binary. (No lmadm 64-bit binary is available.)• Multiple Ethernet hostids are not supported.• Short code transactions are supported.• Prepped Trusted Configuration is supported.• For building requirements, see Requirements for Building the Mac OS X Licensing Toolkit.
Toolkit Functionality	Licensing based on license files or trusted storage.
Security Functionality	Support for tamper-resistant applications. The toolkit is labeled as <i>standard</i> .

Requirements for Building the Mac OS X Licensing Toolkit

The following lists the special requirements for building the FlexNet Publisher Licensing toolkit on specific Mac OS X platforms.

Building on OS X 10.7 or 10.8 or 10.9

When building the Licensing toolkit, use the appropriate Mac development environment:

- For OS X 10.7, use XCode 4.1.x.
- For OS X 10.8, use XCode 4.6.x.
- For OS X 10.9, use Xcode 5.0.2

The supplied makefiles build a universal Licensing toolkit that can be used to produce FlexEnabled applications of the following types (all contained within a single FAT binary):

- 32-bit Intel—Runs on OS X 10.7 or later on Intel platforms

- 64-bit Intel—Runs on OS X 10.7 or later on Intel 64-bit platforms

Mac SDKs Required

The SDK appropriate to the Mac OS X version must be available on the machine where you are building the Licensing toolkit:

- For OS X 10.7, `/Developer/SDKs/MacOSX10.7.sdk`
- For OS X 10.8, `/Volumes/Xcode/Xcode.app/Contents/Developer/Platforms/MacOSX.platform/Developer/SDKs/MacOSX10.8.sdk` (or use `xcode-select --print-path` to obtain the correct path)
- For OS X 10.9, use `xcode-select --print-path` to obtain the correct path and choose 10.8 SDK path

Building on OS X 10.6

When building the Licensing toolkit on OS X 10.6, use XCode 3.x.

The supplied makefiles build a universal Licensing toolkit that can be used to produce FlexEnabled applications of the following types (all contained within a single FAT binary):

- 32-bit Intel—Runs on OS X 10.6 or later on Intel platforms
- 64-bit Intel—Runs on OS X 10.4 or later on Intel 64-bit platforms

Mac SDKs Required

The appropriate Mac OS X SDK version must be available on the machine where you are building the Licensing toolkit:

- For 32-bit Intel, `/Developer/SDKs/MacOSX10.4u.sdk`
- For 64-bit Intel, `/Developer/SDKs/MacOSX10.6.sdk`

Microsoft Windows 32-bit

The following lists information about FlexNet Publisher support for Microsoft Windows 32-bit machines:

Platform Name	i86_n
Package Identifier	i86_n3
Tested Compiler	<ul style="list-style-type: none">• Visual Studio 2013• Visual Studio 2012• Visual Studio 2010 Professional Edition For MVSC 2008 (version 9.00.30729.1 SP): <ul style="list-style-type: none">• Visual Studio 2008 Professional Edition• Visual Studio 2008 SP1 (KB945140)
Notes	<ul style="list-style-type: none">• Tmadmin is supported in this toolkit.• Multiple Ethernet hostids are supported.• Short code transactions are supported.• Prepped Trusted Configuration is supported.• Supported virtual machine platforms include: VMware Workstation 9.0 VMware ESX 4.1 and ESXi 4., 5.0, and 5.1 Microsoft Windows Server 2008 R2 Hyper-V Microsoft Hyper-V Server 2008 R2 (including SP1) Microsoft Windows Server 2012 Citrix XenServer 6.0, 6.1, and 6.2
Toolkit Functionality	Licensing based on license files or trusted storage.
Security Functionality	Support for tamper-resistant applications. The toolkit is labeled as <i>standard</i> .

Microsoft Windows 64-bit

The following lists information about FlexNet Publisher support for Microsoft Windows 64-bit machines:

Platform Name	x64_n
Package Identifier	x64_n6
Tested Compiler	<ul style="list-style-type: none">• Visual Studio 2013• Visual Studio 2012• Visual Studio 2010 Professional Edition For MVSC 2008 (version 9.00.30729.1 SP): <ul style="list-style-type: none">• Visual Studio 2008 Professional Edition• Visual Studio 2008 SP1 (KB945140)
Notes	<ul style="list-style-type: none">• 1madm in is supported using its 32-bit binary. (No 1madm in 64-bit binary is available.)• Multiple Ethernet hostids are supported.• Short code transactions are supported.• Prepped Trusted Configuration is supported.• The 1mtool s utility cannot interact with the license server manager (1mgrd) when 1mgrd is run as a service.• Supported virtual machine platforms include: VMware Workstation 9.0 VMware ESX 4.1 and ESXi 4.1, 5.0, and 5.1 Microsoft Windows Server 2008 R2 Hyper-V Microsoft Hyper-V Server 2008 R2 (including SP1) Microsoft Windows Server 2012 Citrix XenServer 6.0, 6.1, and 6.2
Toolkit Functionality	Licensing based on license files or trusted storage.
Security Functionality	Support for tamper-resistant applications. The toolkit is labeled as <i>standard</i> .

Microsoft Windows 64-bit on Itanium

The following lists information about FlexNet Publisher support for machines running Microsoft Windows 64-bit on Itanium:

Platform Name	ia64_n
Package Identifier	it64_n
Tested Compiler	Platform SDK 2008 v2.0.50727
Notes	<ul style="list-style-type: none">• 1madm:n is not supported in this toolkit.• Multiple Ethernet hostids are supported.• Short code transactions are not supported.• Prepped Trusted Configuration is not supported.• The 1mtoo1s utility cannot interact with the license server manager (1mgrd) when 1mgrd is run as a service.• Parallel or USB Dongle (FlexNet Id) is not supported.
Toolkit Functionality	Licensing based on license files or trusted storage.
Security Functionality	No support for tamper-resistant applications. The toolkit is labeled as <i>notr</i> .

Red Hat Linux 64-bit on Itanium

The following lists information about FlexNet Publisher support for machines running Red Hat Linux 64-bit on Itanium:

Platform Name	it64_re
Package Identifier	it64_re5
Tested Compiler	gcc 4.0.4 (RHEL 5)
Notes	<ul style="list-style-type: none">• 1madm:n is not supported in this toolkit.• Multiple Ethernet hostids are supported.• Short code transactions are not supported.• Prepped Trusted Configuration is not supported.
Toolkit Functionality	Licensing based on license files or trusted storage.
Security Functionality	Support for tamper-resistant applications. The toolkit is labeled as <i>standard</i> .

Solaris 32-bit

The following lists information about FlexNet Publisher support for Solaris 32-bit machines:

Platform Name	<ul style="list-style-type: none">• x86_sol (on x86)• sun4_u (on SPARC 32-bit)
Package Identifier	<ul style="list-style-type: none">• x86_sol9 (on x86)• sun4_u9 (on SPARC 32-bit)
Tested Compiler	<p>For x86:</p> <ul style="list-style-type: none">• cc (Sun C) 5.8• cc (Sun C) 5.12 <p>For SPARC 32-bit:</p> <ul style="list-style-type: none">• cc (Sun C) 5.8• cc (Sun C) 5.12
Notes	<ul style="list-style-type: none">• <code>1madmin</code> is supported in this toolkit.• Synchronous I/O multiplexing, via <code>select</code>, is supported for up to 65,535 file descriptors.• The number of system semaphore arrays can become exhausted.• Shared objects might not run when compiled with <code>gcc</code> on SPARC 32-bit.• Multiple Ethernet hostids are not supported.• Short code transactions are not supported.• Prepped Trusted Configuration is supported.
Toolkit Functionality	Licensing based on license files or trusted storage.
Security Functionality	Support for tamper-resistant applications. The toolkit is labeled as <i>standard</i> .

Solaris 64-bit

The following lists information about FlexNet Publisher support for Solaris 64-bit machines:

Platform Name	<ul style="list-style-type: none">• x64_sun (on x64)• sun64_u (on SPARC 64-bit)
Package Identifier	<ul style="list-style-type: none">• x64_sun10 (on x64)• sun64_u9 (on SPARC 64-bit)
Tested Compiler	<p>For x86-64:</p> <ul style="list-style-type: none">• cc (Sun C) 5.8• cc (Sun C) 5.10• cc (Sun C) 5.12 <p>For SPARC 64-bit:</p> <ul style="list-style-type: none">• cc (Sun C) 5.8• cc (Sun C) 5.12
Notes	<ul style="list-style-type: none">• 1madm in is supported using its 32-bit binary. (No 1madm in 64-bit binary is available.)• Shared objects might not run when compiled with gcc on SPARC 64-bit.• Multiple Ethernet hostids are not supported.• Short code transactions are not supported.• Prepped Trusted Configuration is supported.
Toolkit Functionality	Licensing based on license files or trusted storage.
Security Functionality	Support for tamper-resistant applications. The toolkit is labeled as <i>standard</i> .

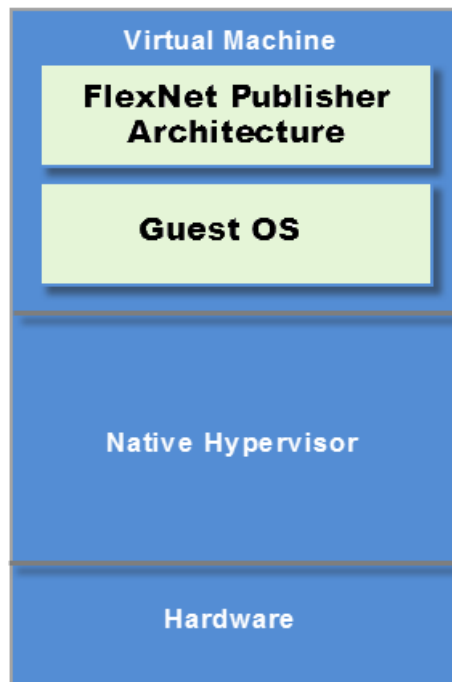
Toolkits That Support Prepped Trusted Storage

Toolkit platforms that support prepped Trusted Configuration include the following:

- i86_lsib
- i86_n3
- sun4_u9
- sun64_u9
- universal_mac10
- ppc_lsib
- x64_lsib
- x64_n6
- x64_sun10
- x86_sol9

Virtualization Support

The following picture illustrates how the FlexNet licensing server or a FlexEnabled application operates within a virtualization stack. The table below the picture lists the virtualization stacks that FlexNet Publisher supports.



Use the following table to determine the supported virtualization stacks.



Note • As of release 11.12.1, FlexNet Publisher no longer supports VMware ESXi 3.5 and earlier or VMware Workstation versions earlier than 9.0.

Table 4 • Virtualization Stack Support

FlexNet Publisher Architecture	Guest OS	Hypervisor	Host ID (virtual)	Host ID (native)
i86_n	<ul style="list-style-type: none"> Windows 8.1 Windows 8 Windows Server 2008, including SP1 and SP2 Windows 7 (Professional, Enterprise, Ultimate) Windows Vista, including SP1 (Ultimate) and SP2 (Business, Enterprise, Ultimate) 	VMware ESX 4.1/ ESXi 4.1, 5.0, and 5.1	<ul style="list-style-type: none"> VM_UUID VMW_UUID* 	<ul style="list-style-type: none"> LMB_HOSTNAME LMB_ETHER LMB_INTERNET LMB_FLEXID VMW_HOSTNAME VMW_ETHER VMW_INTERNET
i86_n	<ul style="list-style-type: none"> Windows 8.1 Windows 8 Windows Server 2008, including SP1 and SP2 Windows 7 (Professional, Enterprise, Ultimate) Windows Vista, including SP1 (Ultimate) and SP2 (Business, Enterprise, Ultimate) 	Microsoft Hyper-V <ul style="list-style-type: none"> Windows Server 2008 R2 (including SP1) 	<ul style="list-style-type: none"> VM_UUID HPV_UUID* 	<ul style="list-style-type: none"> LMB_HOSTNAME LMB_ETHER LMB_INTERNET LMB_FLEXID HPV_HOSTNAME HPV_ETHER HPV_INTERNET HPV_VSN
i86_n	<ul style="list-style-type: none"> Windows 8.1 Windows 8 Windows Server 2008, including SP1 and SP2 Windows 7 (Professional, Enterprise, Ultimate) Windows Vista, including SP1 (Ultimate) and SP2 (Business, Enterprise, Ultimate) 	Citrix XenServer 6.0, 6.1, and 6.2	VM_UUID	<ul style="list-style-type: none"> LMB_HOSTNAME LMB_ETHER LMB_INTERNET LMB_FLEXID

Table 4 • Virtualization Stack Support

FlexNet Publisher Architecture	Guest OS	Hypervisor	Host ID (virtual)	Host ID (native)
i86_n	<ul style="list-style-type: none"> Windows 8.1 Windows 8 Windows 7 (Starter, Home Basic, Home Premium, Professional, Enterprise, Ultimate) and SP1 Windows Vista, including SP1 (Ultimate) and SP2 (Starter, Home Basic, Home Premium, Business, Enterprise, Ultimate) 	VMware Workstation 9	VM_UUID	Not applicable
x64_n	<ul style="list-style-type: none"> Windows 8.1 Windows 8 Windows Server 2012 R2 Windows Server 2012 Windows Server 2008, including SP1 and SP2 Windows 7 (Ultimate and Enterprise) Windows Vista, including SP1 and SP2 (Ultimate) 	VMware ESX 4.1/ ESXi 4.1, 5.0, and 5.1	<ul style="list-style-type: none"> VM_UUID VMW_UUID* 	<ul style="list-style-type: none"> LMB_HOSTNAME LMB_ETHER LMB_INTERNET LMB_FLEXID VMW_HOSTNAME VMW_ETHER VMW_INTERNET
x64_n	<ul style="list-style-type: none"> Windows 8.1 Windows 8 Windows Server 2012 R2 Windows Server 2012 Windows Server 2008, including SP1 and SP2 Windows 7 (Ultimate and Enterprise) Windows Vista, including SP1 and SP2 (Ultimate) 	Microsoft Hyper-V <ul style="list-style-type: none"> Windows Server 2008 R2 (including SP1) Windows Server 2012 	<ul style="list-style-type: none"> VM_UUID HPV_UUID* 	<ul style="list-style-type: none"> LMB_HOSTNAME LMB_ETHER LMB_INTERNET LMB_FLEXID HPV_HOSTNAME HPV_ETHER HPV_INTERNET HPV_VSN

Table 4 • Virtualization Stack Support

FlexNet Publisher Architecture	Guest OS	Hypervisor	Host ID (virtual)	Host ID (native)
x64_n	<ul style="list-style-type: none"> • Windows 8.1 • Windows 8 • Windows Server 2012 R2 • Windows Server 2012 • Windows Server 2008, including SP1 and SP2 • Windows 7 (Ultimate and Enterprise) • Windows Vista, including SP1 and SP2 (Ultimate) 	Citrix XenServer 6.0, 6.1, and 6.2	VM_UUID	<ul style="list-style-type: none"> • LMB_HOSTNAME • LMB_ETHER • LMB_INTERNET • LMB_FLEXID
x64_n	<ul style="list-style-type: none"> • Windows 8.1 • Windows 8 • Windows Server 2012 R2 • Windows Server 2012 • Windows 7 (Starter, Home Premium, Professional, Enterprise, Ultimate) • Windows Vista, including SP1 and SP2 (Ultimate) 	VMware Workstation 9	VM_UUID	Not applicable
i86_Isb (on x86)	<ul style="list-style-type: none"> • RedHat Enterprise Linux 5 and 6 • SUSE Linux Enterprise10, 11 	VMware ESX 4.1/ ESXi 4.1, 5.0, and 5.1	<ul style="list-style-type: none"> • VM_UUID • VMW_UUID* 	<ul style="list-style-type: none"> • LMB_HOSTNAME • LMB_ETHER • LMB_INTERNET • LMB_FLEXID • VMW_HOSTNAME • VMW_ETHER • VMW_INTERNET
i86_Isb (on x86)	<ul style="list-style-type: none"> • RedHat Enterprise Linux 5 and 6 • SUSE Linux Enterprise10, 11 	Microsoft Hyper-V <ul style="list-style-type: none"> • Windows Server 2008 R2 (including SP1) 	<ul style="list-style-type: none"> • VM_UUID • HPV_UUID* 	<ul style="list-style-type: none"> • LMB_HOSTNAME • LMB_ETHER • LMB_INTERNET • LMB_FLEXID • HPV_HOSTNAME • HPV_ETHER • HPV_INTERNET • HPV_VSN

Table 4 • Virtualization Stack Support

FlexNet Publisher Architecture	Guest OS	Hypervisor	Host ID (virtual)	Host ID (native)
i86_Isb (on x86)	<ul style="list-style-type: none"> RedHat Enterprise Linux 5 and 6 SUSE Linux Enterprise10, 11 	Citrix XenServer 6.0, 6.1, and 6.2	VM_UUID	<ul style="list-style-type: none"> LMB_HOSTNAME LMB_ETHER LMB_INTERNET LMB_FLEXID
i86_Isb (on x86)	<ul style="list-style-type: none"> RedHat Enterprise Linux 5 and 6 SUSE Linux Enterprise 10, 11 	VMware Workstation 9	VM_UUID	Not applicable
x64_Isb (on x64)	<ul style="list-style-type: none"> RedHat Enterprise Linux 5 and 6 SUSE Linux Enterprise10, 11 	VMware ESX 4.1/ ESXi 4.1, 5.0 and 5.1	<ul style="list-style-type: none"> VM_UUID VMW_UUID* 	<ul style="list-style-type: none"> LMB_HOSTNAME LMB_ETHER LMB_INTERNET LMB_FLEXID VMW_HOSTNAME VMW_ETHER VMW_INTERNET
x64_Isb (on x64)	<ul style="list-style-type: none"> RedHat Enterprise Linux 5 and 6 SUSE Linux Enterprise10, 11 	Microsoft Hyper-V <ul style="list-style-type: none"> Windows Server 2008 R2 (including SP1) Windows Server 2012 	<ul style="list-style-type: none"> VM_UUID HPV_UUID* 	<ul style="list-style-type: none"> LMB_HOSTNAME LMB_ETHER LMB_INTERNET LMB_FLEXID HPV_HOSTNAME HPV_ETHER HPV_INTERNET HPV_VSN
x64_Isb (on x64)	<ul style="list-style-type: none"> RedHat Enterprise Linux 5 and 6 SUSE Linux Enterprise 10, 11 	Citrix XenServer 6.0, 6.1, and 6.2	VM_UUID	<ul style="list-style-type: none"> LMB_HOSTNAME LMB_ETHER LMB_INTERNET LMB_FLEXID
x64_Isb (on x64)	<ul style="list-style-type: none"> RedHat Enterprise Linux 5 and 6 SUSE Linux Enterprise10, 11 	VMware Workstation 9	VM_UUID	Not applicable

* VMW_UUID and HPV_UUID are now deprecated in favour of VM_UUID, but are still supported for backward compatibility.

Limitation: For virtual machines running on a XenServer, FlexNet Publisher supports Imbind running on a remote physical machine only. (That is, due to limitations of the XenServer console operating system, Imbind cannot run directly on the hypervisor.)

Cloud Support

Use the following table to determine guest operating systems and hostids that FlexNet Publisher supports in an Amazon EC2 environment.



Note • *Trusted-storage-based licensing is not supported in the Amazon EC2 environment.*

Table 5 • Cloud Support Platforms

FlexNet Publisher Architecture	Guest OS	Cloud Platform	Host ID
i86_n	<p>For License Servers:</p> <ul style="list-style-type: none">• Windows Server 2008, including SP1 and SP2• Windows 7 (Professional, Enterprise, Ultimate)• Windows Vista, including SP1 (Ultimate) and SP2 (Business, Enterprise, Ultimate) <p>For FlexEnabled Clients:</p> <ul style="list-style-type: none">• Windows 8.1• Windows 8• Windows 7 (Starter, Home Basic, Home Premium, Professional, Enterprise, Ultimate) and SP1• Windows Vista, including SP1 (Ultimate) and SP2 (Starter, Home Basic, Home Premium, Business, Enterprise, Ultimate)	Amazon EC2	<p>License servers:</p> <p>AMZN_EIP</p> <p>License servers (using lmbind):</p> <ul style="list-style-type: none">• LMB_HOSTNAME• LMB_ETHER• LMB_INTERNET• LMB_FLEXID <p>FlexEnabled clients:</p> <p>AMZN_IID</p>

Table 5 • Cloud Support Platforms

FlexNet Publisher Architecture	Guest OS	Cloud Platform	Host ID
x64_n	For Server Implementations: <ul style="list-style-type: none"> Windows Server 2012 R2 Windows Server 2012 Windows Server 2008, including SP1 and SP2 Windows 7 (Ultimate and Enterprise) Windows Vista, including SP1 and SP2 (Ultimate) For Client Applications: <ul style="list-style-type: none"> Windows 8.1 Windows 8 Windows 7 (Starter, Home Premium, Professional, Enterprise, Ultimate) Windows Vista, including SP1 and SP2 (Ultimate) 	Amazon EC2	License servers: AMZN_EIP License servers (using lmbind): <ul style="list-style-type: none"> LMB_HOSTNAME LMB_ETHER LMB_INTERNET LMB_FLEXID FlexEnabled clients: <ul style="list-style-type: none"> AMZN_IID
i86_lsb (on x86)	<ul style="list-style-type: none"> RedHat Enterprise Linux 5 and 6 SUSE Linux Enterprise 10, 11 	Amazon EC2	License servers: AMZN_EIP License servers (using lmbind): <ul style="list-style-type: none"> LMB_HOSTNAME LMB_ETHER LMB_INTERNET LMB_FLEXID FlexEnabled clients: <ul style="list-style-type: none"> AMZN_IID

Table 5 • Cloud Support Platforms

FlexNet Publisher Architecture	Guest OS	Cloud Platform	Host ID
x64_Isb (on x64)	<ul style="list-style-type: none">• RedHat Enterprise Linux 5 and 6• SUSE Linux Enterprise 10, 11	Amazon EC2	License servers: AMZN_EIP License servers (using lmbind): <ul style="list-style-type: none">• LMB_HOSTNAME• LMB_ETHER• LMB_INTERNET• LMB_FLEXID FlexEnabled clients: <ul style="list-style-type: none">• AMZN_IID

System Requirements for Imadmin

The following sections describe supported platforms and requirements for Imadmin:

- [Supported Platforms](#)
- [For 64-bit platforms use the 32-bit Imadmin installers provided in the Imadmin folder of the toolkits.](#)
- [Supported Browsers](#)

Supported Platforms

Imadmin can be run on the following platforms. (See the information in [For 64-bit platforms use the 32-bit Imadmin installers provided in the Imadmin folder of the toolkits.](#) for platform-specific requirements.)

Table 6 • Platform Support for Imadmin

Platform Architecture	Processor Type	Operating System
AIX 32-bit	PowerPC	AIX 6.1, and 7.1
AIX 64-bit	PowerPC	AIX 6.1, and 7.1
Linux 32-bit	x86	Certified with the following: <ul style="list-style-type: none">• RedHat Enterprise Linux 5 and 6• SUSE Linux Enterprise 10, 11
Linux 64-bit	x86-64	Certified with the following: <ul style="list-style-type: none">• RedHat Enterprise Linux 5 and 6• SUSE Linux Enterprise 10, 11
Microsoft Windows 32-bit	x86	<ul style="list-style-type: none">• Windows 8.1• Windows 8• Windows Server 2008• Windows 7 (Ultimate)• Windows Vista (Ultimate)
Microsoft Windows 64-bit	x64	<ul style="list-style-type: none">• Windows 8.1• Windows 8• Windows Server 2012 R2• Windows Server 2012• Windows Server 2008• Windows 7 (Ultimate)• Windows Vista (Ultimate)
Mac OS 32-bit	x86	Mac OS X 10.6, 10.7, 10.8, and 10.9
Mac OS 64-bit	x64	Mac OS X 10.6, 10.7, 10.8, and 10.9

Table 6 • Platform Support for Imadmin

Platform Architecture	Processor Type	Operating System
Solaris 32-bit	<ul style="list-style-type: none">• x86• SPARC 32-bit	Solaris 10, and 11
Solaris 64-bit	<ul style="list-style-type: none">• x64• SPARC 64-bit	<ul style="list-style-type: none">• Solaris 10 and 11 (on SPARC 64)• Solaris 10 and 11 (on x64)



Note • For 64-bit platforms use the 32-bit Imadmin installers provided in the Imadmin folder of the toolkits.

Additional System Requirements

Imadmin has these additional requirements:

- Linux 32-bit libraries, required by Imadmin, are not automatically installed with RedHat Enterprise Linux 6 (64-bit). You must manually install these libraries on this operating system. Refer to the RedHat Enterprise Linux documentation for details.
- To use Imadmin on Windows platforms, the Microsoft Visual C++ 2008 Redistributable Package (x86) must be installed. You have an option to install this package during the FlexNet Publisher License Server Installer process.

Supported Browsers

Imadmin is supported on the following Web browsers:

- On RedHat Linux, Mozilla Firefox 10, 12 and 18.x, Google Chrome 24.x
- On Windows, Microsoft Internet Explorer 8, 9 and 10.x
- On Mac OS X, Apple Safari 5.0 and 5.1.7

Known Issues

The following sections describe known issues for FlexNet Publisher 2014 (11.12.1). (Numbers in parentheses indicate the Flexera Software issue reference number.)

- [General Issues](#)
- [Dongle Issues](#)
- [Issues Specific to Trusted-Storage-Based Licensing](#)
- [Issues Specific to License-File-Based Licensing](#)
- [Imadmin and Imgrd Issues](#)
- [IPv4 and IPv6 Issues](#)

- [Imtools Issues](#)
- [Imstat Issues](#)
- [Platform-Specific Issues and limitations](#)

General Issues

Checkout delay due to timeout issue with Amazon EC2 detection mechanism

A small number of systems have previously falsely tested positive for being an Amazon EC2 platform (IOA-000083595). While this false positive has been resolved, some of these systems may instead manifest a once-off checkout delay of approximately a minute. (IOA-000124003)

Imstat not displaying the status of vendor daemon

If the vendor daemon is shut down through Imadmin (or otherwise shuts down when Imadmin is running), then running Imstat does not report the status of the vendor daemon, and running Imgrd produces an erroneous message that the vendor daemon is already running. Once Imadmin is shut down, both Imstat and Imgrd behave correctly. Best practice when using Imadmin is to avoid using Imgrd. (IOA-000084565)

Changing the network adapters binding order:

A knowledge base is created with the steps detailed, refer to Q213759:INFO: Virtual Adapter IP Address Captured When Connected to VPN. (IOA-000081168)

Dongle Issues

Cumulative memory leak with FLEXID9 dongles

Windows license servers using a FLEXID9 hostid on the SERVER line will leak memory at the rate of about 3Mb/hour. This is due to a leak in a third-party API, and applies to both 11.12.0 and 11.12.1 FNP. There is no workaround. The recommendation is to avoid use of FLEXID9 hostid on Windows Servers until this issue is fixed in a service pack. (IOB-000063541).

Dongles and USB passthrough on Hypervisors.

Some hypervisor providers, such as VMware (refer VMware KB 1021345) support USB passthrough to their guests, meaning FLEXID hostids can theoretically be used in virtual machines without requiring Imbind. While USB passthrough for dongles is not currently qualified by Flexera Software, the following issues with this functionality are known issues:

1. FLEXID9 dongle functionality can be broken from a revert-to-snapshot transition event. (IOA-000124708)
2. Connection to FLEXID9 dongle fails after 2-3 days when running Linux guest on ESXi 5.1. (IOA-000124095)

Issues Specific to Trusted-Storage-Based Licensing

Lmremove does not work with concurrent license group

Lmremove will not reclaim concurrent licenses served from server-side trusted storage - a “No such feature exists. (-5, 357)” error is obtained when this is attempted. However, Lmremove is now supported with licenses activated from server-side trusted storage (for more information, see new features section of release notes). (IOA-000041331)

Unable to checkout a feature from the Shortcode ASR created by FNO

Checkouts of features from trusted storage fulfillment records created by FNO generated ASRs failed with error LM_BADCODE (-8) When ASRs created by FNO 12.11 and earlier have an incorrect serverHostID value which prevents the feature line signature(s) from verifying correctly. This happened when they use local activation or short code activation.



Note • Trusted storage feature line signature verification is introduced in FNP 11.12.1 for improved security. See future FNO release notes for when this issue is fixed.

As a workaround do the following:

1. To check out features with 11.12.1 that were activated by previous version of FNP using FNO ASRs Modify your application to set job attribute LM_A_CHECK_LOCAL_TS_SIGNATURE to 0 to disable the signature check.
2. For others (preferred workaround)
 - Edit the ASR XML file(s) created by FNO - replace the serverHostID value 'FLEXID=6-a6300155' with 'ID_STRING=TRUSTED'
 - Re-sign the ASR using the xmlsign tool from the FNP kit.

For example: publisher\xmlsign -a ActivationSettings\Publisher.xml -i MyFile.asr -o MyFile.asr



Note • only the ASR signature will change; setting the correct serverHostID causes the existing feature line signature(s) to verify.

(IOA-000084970)

Unable to checkout a feature from a FR in trusted storage

If trusted storage has more than one FR, and each FR has a different serverHostID, then attempting to checkout a feature can result in a LM_BADCODE error. The workaround is to set job attribute LM_A_CHECK_LOCAL_TS_SIGNATURE to 0 (IOC-000090943).

License server not serving the transferred trusted storage features

When transferring trusted storage licenses between two servers, the transfer will appear to succeed but not work if a count is not specified on the transfer command. An example of a command, run on the destination server, that will correctly transfer one hybrid license against an EntitlementID is:

```
./serveractutil -served -entitlementID ENTL-EZCALC -commServer port@source-host -hybrid 1
```

Without the count ('hybrid 1') specified, the transfer will appear to succeed but does not work. (IOA-000084650)

Unstable reread from server-side trusted storage

The vendor daemon may display instability during midnight reread when AUTOMATIC_REAREAD is set to off in the options file and expiring licenses are present in server-side TS. Until this issue is fixed, Flexera recommends not to set AUTOMATIC_REREAD to OFF in the options file when serving licenses from trusted storage. (IOA-000080729)

Fulfillment Records Do Not Use Proper UTF-8 Encoding for XML

UTF-8 encoding is not properly implemented in FlexNet Publisher fulfillment records. FlexNet Publisher does not properly escape—as is required for UTF-8 encoding—the following characters:

< > ' " &

Avoid using these characters in vendor dictionaries, fulfillment IDs, or as any other input to request or response data. (IOB-000058644)

Issues Specific to License-File-Based Licensing

License borrow return issue

The lmborrow return and lremove does not work when DUP_GROUP=V or DUP_VENDOR is used. (IOC-000090723)

Freeing Job Does Not Always Remove the SUITE RESERVED Reservation

When a client application using a SUITE_RESERVED license exits by freeing the job handle without checking in all its licenses, this may result in the licenses remaining reserved. (IOA-000042230)

Limitation: 1000 Concurrent Job Handles

On both i686 and ppc64_1sb platforms, a FlexEnabled application can open up to 1000 concurrent job handles. Once this limit is exceeded, it will return a -16, 287 error. (IOC-000084287)

VM_UUID is not getting extracted from RHEL7 guests

Linux RHEL7 guests will not support extraction of VM_UUID (lghostid -ptype VM -uuid). (IOA-000124590)

Borrow cache persists after reread or restart

Inclusion of new license file no longer clears the borrow cache while restarting the license server. A limitation to this fix is, if a different port number for this license server is used when it is restarted, the borrow cache will be lost. (IOA-000124703)

Imadmin and Imgrd Issues

Imadmin Silent Installer Generating a ‘Bad String’ Error Message

The Imadmin silent installer (for x86_so19 or x64_sun10) is generating a “Bad String” error message even though the installation completes successfully. If a workaround is needed to prevent this message from displaying, a root user must insert the following in /etc/profiles on the machine before starting the installation:

`/usr/xpg4/bin`

(IOA-000067924)

Absolute Path Required for Installation Path

When using -DUSER_INSTALL_DIR in the command line to specify the installation directory during an Imadmin silent installation, provide an absolute path. If you designate a relative path, the installer displays an `Installation Complete` message when in fact the installation does not complete successfully. (IOA-000064349)

Imadmin Silent Installer Not Displaying Required Error Message

When a non-root user attempts to install Imadmin in the default location, the installer can hang. (IOA-000063965)

Imadmin Dashboard Displays Wrong License Usage When Licenses in Queue

The Imadmin dashboard does not include the currently queued licenses and displays their count as available in the dashboard. Use Imstat to obtain an accurate count of both checked out and queued licenses. (IOA-000048229)

Imadmin Not Reporting Checkout Details Correctly

When a feature is checked out by the same user but from different displays, then the Hosts display for this feature is incorrect. All checkouts are reported to be from one of the display names. (IOC-000075427)

-adminOnly Argument Causing Rotate Report Logs Option to Generate an Error

By design, the command-line argument -adminOnly yes restricts access to certain Imadmin utilities, such as Imnewlog. Normally, this argument has no effect on access to similar utilities accessed from the Imadmin user interface. (Utilities accessed from the user interface are controlled by Imadmin log-in

credentials.) However, if `-adminOnly yes` is set from the command line, any attempt to select the Rotate Report Logs option (comparable to the `lmnewlog` utility) in the user interface currently produces an error. (IOA-000060235)

Active Directory User or Group Authentication Issue

Currently, in the `lmadmin` profile for an Active Directory administrator, you can change the user role from a **Domain Administrator** to **Domain Administrator Group**. The same user ID and password can then log into `lmadmin` Administration page. `lmadmin` does not authenticate whether user ID is actually the name of a group or user in Active Directory. (This authentication issue happens when you add user profile as well.) (IOA-000063813)

IPv4 and IPv6 Issues

IPv4 lmstat Unable To Obtain Information for Server With IPv6 Address in License File

When the value for the SERVER line in a license file is an IPv6 address, IPv4 `lmstat` is not able to retrieve statistics. Similar issues can occur with other `lmutil` utilities. (IOA-000074558)

IPv4 not communicating with IPv6 during flxActCommonLicSpcPopulateAllFromServerTS call

This issue applies only to Windows Server 2003 and Windows XP. Currently, when using an IPv6 server and a windows client, calls to the `flxActCommonLicSpc*1FromServerTS` APIs may fail if an IPv4 address is used in the `pszServer` parameter of the API. It is recommended to either use the system name rather than an IP address, or use an IPv6 address. (IOA-000080953)

lmgrd for Distinct Vendor Daemons Use Same TCP Port

When one vendor daemon is built with an IPv4 and another with an IPv6 toolkit and both reside on the same machine, the `lmgrd` instances for each is using the same TCP port.

As workaround, make sure that you specify a different TCP port in the license file for each license server. (IOC-000083049)

Imtools Issue

Imtools Allows User to Shut Down Server When Feature is Borrowed

The `Imtools` utility allows the license server to be shutdown without prompting when a feature is currently borrowed. Use the `Imdown` utility instead. (IOA-000049738)

Imcrypt Issues

Imcrypt Issues When hostids Are Not Delimited in Features

Imcrypt can exit if a feature line specifies a mix of IPv4 and IPv6 hostids, but no spaces are used to delimit between hostids. (IOA-000074702)

Imstat Issues

IPv6 Imstat Unable To Obtain Information for Server With IPv6 Address in License File in three server

When the value for the `SERVER` line in a license file is an IPv6 address, IPv6 `Imstat` is not able to retrieve statistics. Similar issues can occur with other `Imutil` utilities. (IOA-000124109)

Limitations with Imstat

1. When there are multiple `FEATURE+INCREMENT/INCREMENT` lines for same feature, that is different pools for same feature varying either by version or expiry date displays **ONLY** one expiry value and not two.
2. When we have a pool scenario, always the first occurrence of `FEATURE/INCREMENT` line is being considered as expiry, and only changes done to that line are being reflected after reread and not the subsequent lines.

(IOA-000078873)

Platform-Specific Issues and limitations

Java limitations

TS_OK and ONE_TS_OK Attributes Not Supported on Java Client

Java clients currently do not support the `TS_OK` or `ONE_TS_OK` attribute for node-locked licenses. (IOC-000086507)

Linux

32-bit Dependency Errors on RHEL6 x64 Machine

Dependency errors can occur when users attempt to perform certain actions (such as starting the license server through `lmadmin` or installing the Aladdin dongle driver) on the RedHat Enterprise Linux 6 (64-bit) platform. These errors happen because Linux 32-bit libraries, required by `lmadmin` and other components, are not automatically installed with RedHat Enterprise Linux 6 (64-bit). You must manually install these libraries on this operating system. Refer to the RedHat Enterprise Linux documentation for details. (IOA-000075728)

LSB 4.0 Compliance Issues

LSB 4.0 Compliance Notes for FlexNet Publisher Libraries

This section should be read by publishers who wish to obtain LSB compliance for applications which have dependencies on FlexNet Publisher static and dynamic libraries.

- All FlexNet Publisher static libraries are LSB compliant except for `liblmgr_dongle.a`. Flexera is working with third-party dongle providers to obtain LSB-compliant drivers for a future release. Applications that need to be fully LSB compliant should link against the stub versions of the dongle library.

General LSB 4.0 compliance notes

This release of FlexNet Publisher has the following Linux Standard Base (LSB) compliance issues:

- LSB checks are limited to those performed by running the LSB appchecker
- FlexNet Publisher is not validated against the ABI specified by any LSB version (IOA-000081844)
- `lmbind` and `lmutil` both link in the non-LSB compliant `liblmgr_dongle.a`
- To run `lmutils/lmbind` on ESX machines, as a prerequisite perform the following:-
 - At the ESX command line, as root, enter:-

```
ln -s /lib/ld-linux.so.2 /lib/ld-lsb.so.3 (IOB-000063304).
```

LSB 4.0 appchecker issue

The following are errors generated by the LSB 4.0 appchecker against 11.12.1 i86_lsb GA kits:

Component	LSB 4.0 failures
install_fnp.sh	'chattr', 'rpm', 'which' & 'lsmod' are not included in LSB 4.0
lmadmin-i86_lsb-11_12_1_0.bin (lmadmin installer)	'isNumeric' and 'uncompress' are not included in LSB 4.0
multiple	The following interfaces are deprecated in LSB 4.0: gethostbyaddr; gethostbyname; gethostbyname_r; and strerror_r

The following are errors generated by the LSB appcheckers against 11.12.1 ppc_lsb and ppc64_lsb kits

Component	LSB failures	Comment
All	Symbol <code>__nldbl_fprintf</code> is used, but is not included in LSB 4.0 (IOA-000082999)	This issue affects only PowerPC Linux platforms. Although this symbol is present on many Linux distributions, including the FlexNet Publisher reference Linux distributions, it is required by FlexNet Publisher static libraries, and will therefore prevent publishers gaining LSB compliance on PowerPC Linux.

Mac OS X

Mac OS X 10.5 incompatibility

To conform with new mach-o Application Binary Interface (ABI) style which is introduced from 10.6 OS X onwards, FlexNet Publisher Ladysmith kit has been source built with the clang compiler, using the 10.8 SDK on OS X 10.8 (previously gcc 4.0.4 was used on OS X 10.5) Consequently:

- Rebuilding FlexNet Publisher on OS X 10.5 will lead to undefined behavior
- FlexNet Publisher should not be run on OS X 10.5. 10.6 is the oldest version of OS X supported.

Build warnings with clang compiler

When building `makefile(.act)` with recent versions of the clang compiler, a number of benign build warnings may be seen. These will be fixed in a future release (IOA-000124544)

OS X 10.9 SDK support

FlexNet publisher is not supported with the OS X 10.9 SDK as the resulting Vendor daemon is unstable (IOA-000124350)

Since known runtime-library incompatibilities occur only in activation applications, the existing best practice advice to separate activation and licensing client applications, will isolate these incompatibilities to activation applications. Activation applications should be linked with `libstdc++`.

FlexNet Publisher OS X kit is unstable if built with the OS X 10.9 SDK

The OS X kit is unstable if built with the 10.9 SDK - for example, the vendor daemon may restart continuously. The newest version of the OS X SDK supported by FNP is 10.8. A license server built with the 10.8 SDK is supported on OS X 10.9. (IOB-000063657)

Windows

Imbind on Hyper-V

On Hyper-V Windows server, `Imbind.exe` does not pick a free port if 27010 is in use. (IOA-000056316)

CSharpWrapper sample application issue

In some cases, when the CSharpWrapper application returns a license from trusted storage, the application can still erroneously checkout the returned license. This is because the CSharpWrapper application does not currently close the job handle after the return operation. As a workaround restart the application, to perform any operation. (IOB-000061781)

CSharpWrapper sample application usage with the license server

Experimental support of this sample application with license servers is now available. However, there are a number of issues with the `fnpcsharpwrapper` application when used with license servers as mentioned in the table below:

Table 1-1 • Issues with `fnpcsharpwrapper` application

Issues	Summary
IOA-000124604	License count issues
IOA-000124651	Failure to activate against a non-Windows license server
IOA-000124584, IOA-000124582	Issues with returning an activated license to a license server
IOA-000124548	Successfully activating using an invalid ActivationID
IOA-000124547	Issues with obtaining the correct expiration for an activated license

Workaround for 32-bit SDT Applications Failures on Vista/x86

The Windows Vista address space layout randomization (ASLR) feature—as enabled by the linker flag `/DYNAMICBASE`—has exposed a bug in Secure Data Types (SDTs). In order for SDTs to function correctly in x86 Vista-based Windows systems (Vista, Windows 7, Windows Server 2008), build the application using SDTs with `/DYNAMICBASE` disabled. As an example, the `makefile.act`, which builds `ezca1csdt.exe`, should be modified as follows in order for `ezca1csdt` to work on the above systems.

Excerpt from makefile before editing

```
LD = LINK /nologo /NODEFAULTLIB /OPT:NOREF /NXCOMPAT /DynamicBase $(LD_FLAGS)
```

Excerpt from makefile after editing

```
LD = LINK /nologo /NODEFAULTLIB /OPT:NOREF /NXCOMPAT /DynamicBase:NO $(LD_FLAGS)
```

After editing makefile.act, run **nmake -f makefile.act ezcalcsdt.exe**.

(IOB-000059976, IOB-000059498)

Deprecated Features and Commands

Deprecated features and commands are listed in the table below.

Table 1-2 • Deprecated candidate list

Deprecated Features and Commands	comments
HPV_UUID / VMW_UUID	Replaced by the generic VM_UUID
Imbind	Virtualization solutions are moving away from a widget installed on a physical machine.
Non trial-id trial ASRs	ASRs which do not use a trial-id are subject to an issue where deleting trusted storage means no further (non-trial-id) ASRs can be loaded. Trial-id ASRs were invented to solve this issue.
license keys	License keys have been documented as obsolete for several years. They are easily cracked. Flexera strongly recommends that new license files use SIGN= signatures, and reserves the right to completely remove support for license keys in a future release.
HASP4 key support in FLEXID9	SafeNet have end-of-life HASP4 dongles support, so 11.12.1 is the last release in which FlexNet Publisher will support these legacy dongles
VMW_*, HPV_ & PHY_* hostids	It is better to have a hostid that is effective in both physical and virtual systems. As an example, we would recommend ETHER instead of VMW_ETHER (on VMware guests), or HPV_ETHER (on Hyper-V guests), or PHY_ETHER (requiring a physical platform).

Copyright Notice

Copyright © 2014 Flexera Software LLC. All Rights Reserved.

This product contains proprietary and confidential technology, information and creative works owned by Flexera Software LLC and its licensors, if any. Any use, copying, publication, distribution, display, modification, or transmission of such technology in whole or in part in any form or by any means without the prior express written permission of Flexera Software LLC is strictly prohibited. Except where expressly provided by Flexera Software LLC in writing, possession of this technology shall not be construed to confer any license or rights under any Flexera Software LLC intellectual property rights, whether by estoppel, implication, or otherwise.

All copies of the technology and related information, if allowed by Flexera Software LLC, must display this notice of copyright and ownership in full.

FlexNet Publisher incorporates software developed by others and redistributed according to license agreements. Copyright notices and licenses for these external libraries are provided in a supplementary document that accompanies this one.

Intellectual Property

For a list of trademarks and patents that are owned by Flexera Software, see <http://www.flexerasoftware.com/intellectual-property>. All other brand and product names mentioned in Flexera Software products, product documentation, and marketing materials are the trademarks and registered trademarks of their respective owners.

Restricted Rights Legend

The Software is commercial computer software. If the user or licensee of the Software is an agency, department, or other entity of the United States Government, the use, duplication, reproduction, release, modification, disclosure, or transfer of the Software, or any related documentation of any kind, including technical data and manuals, is restricted by a license agreement or by the terms of this Agreement in accordance with Federal Acquisition Regulation 12.212 for civilian purposes and Defense Federal Acquisition Regulation Supplement 227.7202 for military purposes. The Software was developed fully at private expense. All other use is prohibited.