

FlexNet Manager Suite 2016 R1

FlexNet Manager Suite 2016 R1

Release Notes

October 2016

The latest release of the published Release Notes are available from the Flexera Software [Customer Community](#).

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Introduction

FlexNet Manager Suite provides software asset, hardware asset, and contract management for enterprises across over 15,000 publishers and more than 182,000 applications. It reports detailed installed software, application usage, and purchase information, and reconciles these to provide a matching license position. It inventories virtual environments and Oracle databases, imports inventory from Microsoft System Center Configuration Manager (SCCM) and other inventory tools through configurable adapters, and seamlessly integrates with Enterprise Resource Planning (ERP), Human Resources (HR), Active Directory (AD) and Purchase Order (PO) systems. With its built-in library of more than 1,000,000 Stock Keeping Unit numbers (SKUs), for automated Purchase Order to inventory reconciliation and support for the latest license models, FlexNet Manager Suite is used by enterprises to gain control of and optimize spend across their software estate.

These release notes contain information about FlexNet Manager Suite, covering:

- FlexNet Manager Suite
- FlexNet Manager for IBM
- FlexNet Manager for Microsoft
- FlexNet Manager for Oracle
- FlexNet Manager for SAP Applications
- FlexNet Manager for Symantec
- FlexNet Manager for VMware

The following products in the suite have their own separate release notes:

- FlexNet Manager for Engineering Applications
- FlexNet Manager for Cloud Infrastructure
- Workflow Manager

New Features

Subscriptions

The 2016 R1 release improves the management of subscription licenses. Purchases of subscription licenses can be automatically processed based on their SKU value or description, along with the start and end dates. When a purchase renews or extends the subscription, it is linked to the existing license and automatically extends the expiry date. A new management view provides insights on forthcoming expiring subscriptions, along with a list those that have expired.

Maintenance

The management of maintenance purchases has been improved. Along with support for subscription licenses, a new 'License and Maintenance Expiry' page displays the licenses where the associated maintenance term(s) has, or will soon expire. A new wizard has been introduced to help operators processing partial or full renewal of maintenance on existing licenses. In case of partial renewal, existing entitlements will be moved to a secondary new or existing license so that one license will represent all entitlements covered by maintenance and the second all entitlements without maintenance. The wizard also assists to split a maintenance purchase

across multiple licenses. Alternatively, the product use rights settings of a license can be configured to update automatically, when the maintenance expiry date passes.

Enhancements to the management of unprocessed software and maintenance purchases may cause historical purchases to reappear, after performing the upgrade, which will be seen in the **Unprocessed Purchases** listing. These purchases will require re-processing. For full details and procedures, see *Enhancement for Purchase Records* in either:

- *Upgrading FlexNet Manager Suite to 2016 R1 On Premises PDF* (when upgrading from FlexNet Manager Suite 2014 or later)
- *Migrating to FlexNet Manager Suite 2016 R1 On Premises PDF* (when migrating from FlexNet Manager Platform versions up to 9.2.3)

Bundled Software

The capability to model and manage bundled software, where a single license represents a collection of separate applications, has been expanded. In addition to displaying each application represented by the license, the 'Applications' tab of each license additionally displays the full list of all applications covered by the license, when any upgrade and downgrade rights have been applied. A new products use rights setting adds the ability to record an application product as **primary** or **supplementary**, where the main application(s) are classified as primary when they are required for the license consumption calculation. Any other applications are classified as supplementary, which may or may not consume additional entitlements; depending on the configuration selected. Further, it is possible to individually configure additional product use rights for each product supported by the license.

During the license reconcile process, enhanced license consumption optimisations are executed which prioritise the consumption of licenses for devices which match, or closely match the application installation combination found on licenses related to bundled software.

Please note that certain license agreements may include specific configuration requirements that cannot be automatically identified or managed. These may require specific attention. For example, the right to install a copy of a database to support the primary application may restrict that database to only process data pertaining to that application.

This functionality is supported for the following operations:

- Importing IBM PVU license definitions from ILMT and creating corresponding licenses when ILMT has been configured to generate the license position. This information is imported through the ILMT database connection configured on the inventory beacon.
- Importing Microsoft Office 365 license definitions from Microsoft Office 365 Online Service. This feature is available only with the FlexNet Manager for Microsoft product.
- Creating a license through purchase processing or linking new purchases to an existing bundled-products license.
- When creating license from scratch.

If a previous release of FlexNet Manager Suite is upgraded, all existing purchases are re-examined during the migration process. When a purchase covering multiple products is detected, a proposed license change will appear in the 'Recommended License Changes' view, under the 'License Compliance' menu option.

Bulk Allocations and Exemptions

The “Apply Allocations and Exemptions” feature provides a comprehensive view of all installations and allocations related to an application or a group of applications. Detailed information related to devices, licenses, license consumption and exemption are available in this view. This view is intended to assist with the task of finding specific groups of devices and users, which are associated with licenses or products, and appropriately allocating or exempting them from a license.

The following operations are available in this view, and each of them may be performed on a large number of records:

- Allocate licenses
- Deallocate licenses
- Apply exemptions
- Remove exemptions

To filter out installations and allocations, a new advanced search filter has been created which enables searching across software products, applications and licenses at once. The relationships between product families, applications belonging to the same product family, and licenses to which those applications have been linked, are included. Once the filter has been displayed, the layout of the grid, sorting options, etc. may be saved, and recalled for later use.

Please note that Allocations and Exemptions cannot be applied to CAL licenses, as there are no application installations associated with a CAL.

CALs

New functionality has been introduced to assist with the management of Microsoft Client Access Licenses (CALs), for customers with the *FlexNet Manager for Microsoft* product.

A new type of evidence, *access evidence* has been added which is collected for Microsoft servers that are enabled for access evidence collection. This *access evidence* information is collected as part of the discovery and inventory process, and is only generated for the inventory devices that have the supported server products installed.

Access evidence is collected through a number of methods, depending on the CAL to be measured:

- The locally-installed FlexNet inventory agent.
- Zero touch inventory collection through inventory beacon(s).
- Inventory uploads from SCCM, through a connection configured on the inventory beacon interface.
- Manual upload of access evidence through Inventory Data One-Off Upload page.

Collection of access evidence requires use of the 2016 R1 releases of the inventory beacon and the inventory agent.

The following table summarizes the applications that are supported for CAL management, along with the access evidence source requirements:

Microsoft Product	Version	User CALs Consumption Mode		Device CALs Consumption Mode		Usage Data Source		Comments
		Access based	Usage based	Access based	Usage based	User CAL	Device CAL	
Windows Server	2012	✓	✓	✓	☑	UAL	UAL	
	2012 R2	✓	✓	✓	☑	UAL	UAL	
	2016	✓	See Comment	✓	See Comment			To be supported after Windows Server 2016 is released
SQL Server	2012	✓	✓	✓	☑	UAL	UAL	Supported only on Windows Server 2012 or later
	2014	✓	✓	✓	☑	UAL	UAL	Supported only on Windows Server 2012 or later
	2016	✓	✓	✓	☑	UAL	UAL	Supported only on Windows Server 2012 or later
Exchange Server	2010	✓	☑	✓	☒	PowerShell	Spreadsheet Import	
	2013	✓	☑	✓	☒	PowerShell	Spreadsheet Import	
	2016	✓	☑	✓	☒	PowerShell	Spreadsheet Import	
SharePoint Server	2010	✓	☒	✓	See Comment		Spreadsheet Import	Partial support to be added later
	2013	✓	✓	✓	☑	UAL	UAL	
	2016	✓	✓	✓	☑	UAL	UAL	
Skype for Business (Lync)	2010	✓	☑	✓	☒	PowerShell	Spreadsheet Import	
	2013	✓	☑	✓	☒	PowerShell	Spreadsheet Import	
	2015	✓	☑	✓	☒	PowerShell	Spreadsheet Import	
SCCM	2012	✓	✓	✓	✓	SCCM	SCCM	Requires SCCM connection
	2012 R2	✓	✓	✓	✓	SCCM	SCCM	Requires SCCM connection
	2016	✓	✓	✓	✓	SCCM	SCCM	Requires SCCM connection

Where:

- ✓ : Full support – requires Microsoft User Access Logging (UAL) or SCCM
- ☑: Partial support – requires Microsoft User Access Logging (UAL) or PowerShell script
- ☒: Limited support – requires spreadsheet import

FlexNet Manager Suite collects the access evidence for Microsoft Windows Server, Microsoft SQL Server, and Microsoft SharePoint Server only if the Microsoft User Access Logging (UAL) service of Microsoft Windows has been enabled.

The license type previously named 'CAL' has been renamed to 'CAL Legacy'. This license type continues to represent a license for which consumption is not measured by installation or usage but by some other measurement, and entered manually.

Office 365

Microsoft Office 365 is a set of productivity tools available online, through a cloud-based subscription method. With the *FlexNet Manager for Microsoft* product, it is possible to manage Microsoft Office 365 subscriptions. A new connector type has been introduced on the inventory beacon interface to import from Microsoft Office 365 Online Services the following information into FlexNet Manager Suite:

- Users: Each imported users record is mapped to the appropriate compliance user record, using the email address. If a user record is not found in FlexNet Manager Suite, a new user is created.
- Licenses: A Named User license for Microsoft Office 365 is created, if does not exist already, with multiple linked applications from the Microsoft Product Use Right Library (PURL).
- Applications: Each imported application record is mapped to the appropriate application record in FlexNet Manager Suite. If an application record is not found in FlexNet Manager Suite, a new application is created.

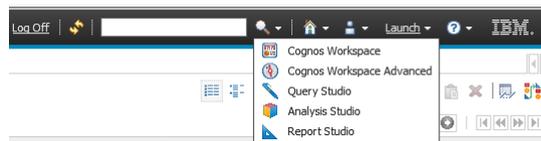
After import and reconciliation, an updated license position for Microsoft Office 365 licenses is displayed.

FlexNet Report Designer

Cloud customers now have access to the FlexNet Report Designer, accessed using the 'Analytics' button under Reports; powered by IBM's Cognos reporting technology. This has been introduced to enable the creation of customized reports.



After opening FlexNet Report Designer, first click on the **Launch** drop-down menu item, located towards the top right of the screen, and select your chosen workspace, such as **Cognos Workspace Advanced**:



A sample report is available for your reference.



While this is the first time that access to FlexNet Report Designer has been offered to Cloud customers, full historical reporting data is available, as data summaries have been collected from the first use of your Cloud instance.

Please note that the values displayed in these reports are based on the maximum quantity value of each field; in the selected time period. It may be advisable to adjust the timeframe to a smaller duration, in order to observe sample variations.

Changes from Previous Releases

FlexNet Report Designer

The FlexNet Report Designer, now accessed using the 'Analytics' button under Reports, has been updated for On-Premises customers. Upgrading the FlexNet Report Designer (powered by Cognos), requires the installation of a new license file, which can be requested from the Orders Support team, o-support@flexerasoftware.com, which will then be available from the [Product and Licensing Centre](#). After applying the new licensing, the supplied roles are:

On-Premises

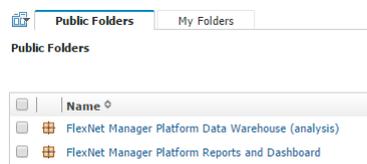
- Analytics Administrator 1 license
- Analytics User 60 licenses

The **Analytics User** role replaces the previous roles **Enhanced Consumer**, **Advanced Business Author & Professional Author**. A user with this role can author and run reports in Report Studio.

The **Analytics Administrator** was previously called the **Web Administrator**.

Note that these new licenses are not backwards-compatible with the previous version of Cognos, so only apply the license once an upgrade is complete.

A new dimensional data model, **FlexNet Manager Platform Data Warehouse (analysis)**, has been introduced and is recommended for use.



The values displayed are based on the maximum quantity value of each field, in the selected time period. It may be advisable to restrict the timeframe to a small duration in order to observe sample variations.

Any customers using a previous version of Cognos must upgrade to this version when upgrading to *FlexNet Manager Suite 2016 R1*. Note that the license key provided with FlexNet Manager Suite 2016 R1 is not backwards compatible with previous releases of Cognos. *FlexNet Manager Suite 2016 R1*, *FlexNet Manager for Cloud Infrastructure 2016 R1* and *FlexNet Manager for Engineering Applications 2016 R1* all use version 10.2.2 of Cognos.

While on-premises customers can choose to use any [IBM supported web server](#), the Report Designer installation wizard provides additional support for the installation of Microsoft Internet Information Services (IIS).

Web browser Support

Microsoft Internet Explorer 9, along with earlier versions of Internet Explorer, are no longer supported.

Enhanced Support for Targeting

The following discovery and inventory collection features have been enhanced to provide a better discovery and inventory experience:

New Action Types

Discovery Only Actions: Suitable when restricting a discovery and inventory rule to only discover devices or services (or both) in the target network. When selected, only the options related to the discovery of services on the target devices are enabled. Some example use cases for this action type can be:

- Discovery of VMware infrastructure running in a particular subnet
- Discovery of computers using Microsoft Computer Browser Service, and discover if those computers are running Microsoft SQL Server.

Inventory Only Actions: Suitable when restricting the discovery and inventory rules to collect inventory from devices that have already discovered. By removing the ping sweep of the subnets attached to the action, the process will be completed more quickly, however non-discovered devices will be ignored. Some example use cases for this action type can be:

- Gathering VMware inventory from all computers already discovered in a particular subnet.
- Gathering Oracle database and Oracle VM inventory from already discovered devices in a particular subnet

Discovery and Inventory Actions: This is the default action type that is suitable for discovering devices, and then collecting inventory from the discovered devices.

Additional Improvements:

Significant changes have been made in this release on the Inventory Beacon. It is recommended to upgrade all beacons in order to benefit from the following improvements:

- Adherence to scope settings has been corrected to avoid the attempted discovery of devices that are outside of the scoped range.
- Improvements to the algorithms used for name matching which can be seen through improved predictability when setting a target, using name matching.
- Improved algorithms for de-duplication and normalization of the devices, and the services discovered on those devices, when multiple inventory sources are used.
- Inventory can use previously discovered devices.

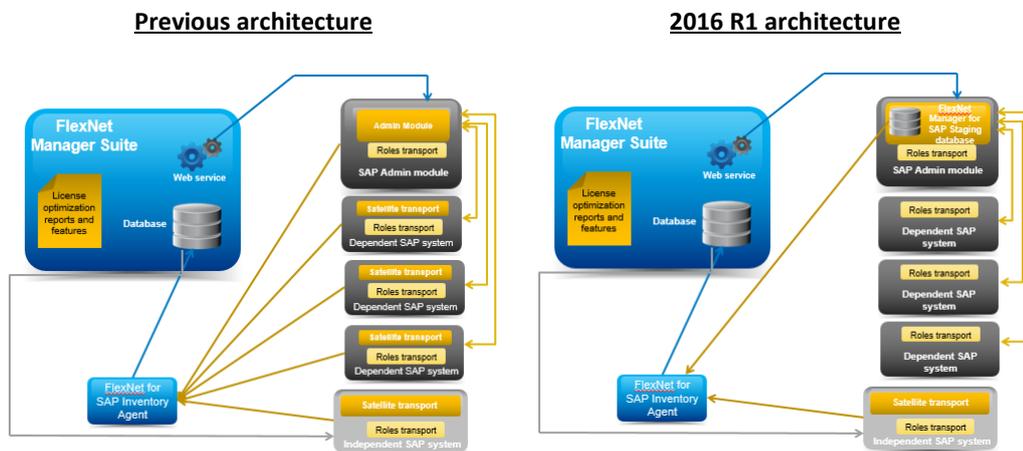
- Ability to automatically update the local version of the Oracle LMS scripts
- The FlexNet inventory agent now uses process listings (Services) to discover running instances of the Oracle database and the SID of those instances can be taken from the process name. This is used to improve identification of the appropriate user, to access the database. This requires use of the updated FlexNet inventory agent.

FlexNet Manager for SAP Applications

New Architecture

The server architecture for *FlexNet Manager for SAP Applications* has been simplified in order to:

- Limit the number of changes made to the SAP environment.
- Require a single connection to the SAP Admin module.
- Eliminate communication between FlexNet Manager for SAP Applications and SAP Satellite systems.



The Web-service needs to be configured to allow communication between FNMS and Admin Module.

FlexNet Manager for SAP Applications, along with the FlexNet inventory beacon(s) can be upgraded without needing to migrate to this new architecture. Note that the upgrade of administration servers and satellites should be done together, once an update to the new architecture has been determined.

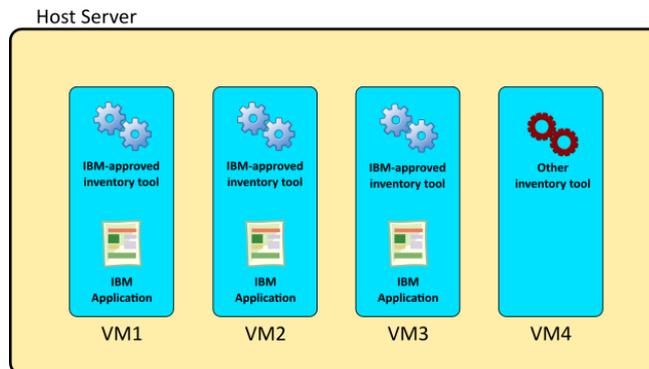
Changes to SAP Error Messages

For customers with the *Flexnet Manager for SAP Applications* product, any errors encountered will be displayed using a more secure, simplified format. This has been introduced to ensure that inappropriate technical information is not displayed. The previous error messages may have included sensitive information such as database connections strings and SQL code.

IBM Sub-capacity license calculations

Customers with the *FlexNet Manager for IBM* product, may choose to use FlexNet Manager Suite data for sub-capacity reporting. Previously, sub-capacity consumption calculations would **not** be applied when one or more virtual machines exist on a host that have not been inventoried by an IBM approved technology.

Now, inventory from all virtual machines is analyzed for the installation of IBM software; *regardless* of the inventory tool installed. When a virtual machine is discovered that does not have IBM software installed, the absence of an IBM-approved inventory tool will not affect the license consumption calculation method chosen.



Sub-capacity calculation may be used when no IBM software is installed on a virtual machine that does not use an IBM-approved inventory tool (VM4).

For further detail, please refer to the Knowledge Base article [‘IBM PVU sub-capacity license calculations may default to full-capacity when all inventory is imported from IBM approved sources’](#)

SKU Information Link

When viewing a list of purchases in either the **All Purchases** or **Unprocessed Purchases** grids, when the SKU column contains a recognized SKU, a hyperlink is available which will provide a quick view to the detail of that SKU.

Additional Translations

The *FlexNet Manager for SAP Applications* Admin module interface is available in French.

Online help is available in German for all FlexNet Manager Suite features incorporated to the 2015 R2 SP4 release. Full help is available in English

Database Upgrade Time Requirement

The time required to upgrade the Data Warehouse database, has increased significantly compared with previous releases. Whilst the specific upgrade time will vary, based on the quantity of data in the database, expect the upgrade of *this* database to increase by four times over previous upgrades.

Demonstration Reports

The demonstration reports for FlexNet Manager for Engineering Applications, 'Feature usage summary' and 'Peak usage and denial' have been discontinued and are no longer delivered with the product.

Extended Installer Evidence Type

A new evidence type has been created to support Microsoft Universal Applications. The SCCM adapter provided with FlexNet Manager Suite imports Universal Applications inventory data.

License Agreement

If your company has purchased a license and signed a software license agreement with Flexera Software or an authorized Flexera Software reseller, the terms and conditions of that agreement govern all use of this software. Otherwise, use of this software, on either an evaluation or a fully-paid license basis, is subject to the terms and conditions of the FlexNet Manager "click-through" End User License Agreement, which can be found in the downloaded installation package.

If you do not agree with the terms of the applicable software license agreement, you may not install FlexNet Manager Suite onto any of your computers or, if already installed, you must remove it from all computers on which it is installed. You must also return or destroy all copies of the software in your possession.

License compatibility

Cloud customers licenses will be updated automatically.

On-Premises customers should request a new license key from support@flexerasoftware.com. Once the license has been created, it will be emailed to the requestor, and a stored in the [Product and License Center](#). Note that a new Report Designer license is also required for this release.

Installation and Upgrade Procedures

This FlexNet Manager Suite 2016 R1 release contains all installation media required for a full installation of this product. It does not require the previous installation of FlexNet Manager Suite to be present.

Due to the scale of changes contained in this release, a full installation is required, which includes loading the latest published Application Recognition Library.

There are four documents that provide instructions for installing and upgrading to FlexNet Manager Suite 2016 R1.

- "Installing FlexNet Manager Suite 2016 R1 On Premises"
- "Installing FlexNet Manager Suite 2016 R1 for a Managed Service"

- “Installing FlexNet Report Designer 2016 R1 On Premises”
- “Upgrading FlexNet Manager Suite from 2014 Rx to 2016 R1 On Premises”. *This is designed for upgrades from FlexNet Manager Platform, version 2014 or later*
- “Migrating to FlexNet Manager Suite 2016 R1 On Premises”. *This covers migration from FlexNet Manager Platform 9.2 to FlexNet Manager Suite 2016 R1). Earlier versions of FlexNet Manager Platform will need to be upgraded to 9.2 before starting this migration.*

These are contained in the **Installation Documentation for FlexNet Manager Suite 2016 R1** archive that is available from the [Product and License Center](#) and the [Customer Community Documentation](#) site. They are also available through the title page of online help for on premises implementations.

Resolved Issues

The following issues have been resolved in **FlexNet Manager Suite 2016 R1** release since the release of **FlexNet Manager Suite 2015 R2 SP5**.

Issue Number	Summary
FNMS-14623	Data may be lost when resolving Active Directory and Inventory, concurrently for the same domain
FNMS-14930	Some installations of the Flexera Inventory Agent are not recognised
FNMS-18256	Performance impact during discovery due to forced credential checking on every device discovered.
FNMS-19689	Active Directory imports always run all connections, with no way to run individual connections
FNMS-22649	Poor performance when setting the “exemption reason” drop down list on the “Consumption” tab of license
FNMS-23198	Using the Safari browser, no records are displayed when search is clicked for location/Corporate Unit/Cost Center under User properties
FNMS-24538	Incorrect IP subnet calculation when specifying multiple overlapping targets
FNMS-25476	Installing FlexNet Manager Suite may fail when an operating system is set to use French language
FNMS-26410	The Business Importer may fail to import assets and related data with a "data would be truncated" error
FNMS-26954	The error 'A Problem Occurred' may be displayed when accessing "License assignment rules" in FlexNet Manager for SAP Applications
FNMS-27377	Custom properties on asset objects are not updated when the asset type changes; values are displayed as a blank.
FNMS-27499	License consumption counts are inconsistent between the License Summary and all Licenses screens
FNMS-27604	The 'Compliance Trend Report' is displaying incorrectly
FNMS-27740	Oracle remote execution scan will ignore tnsnames entries that have a different syntax.

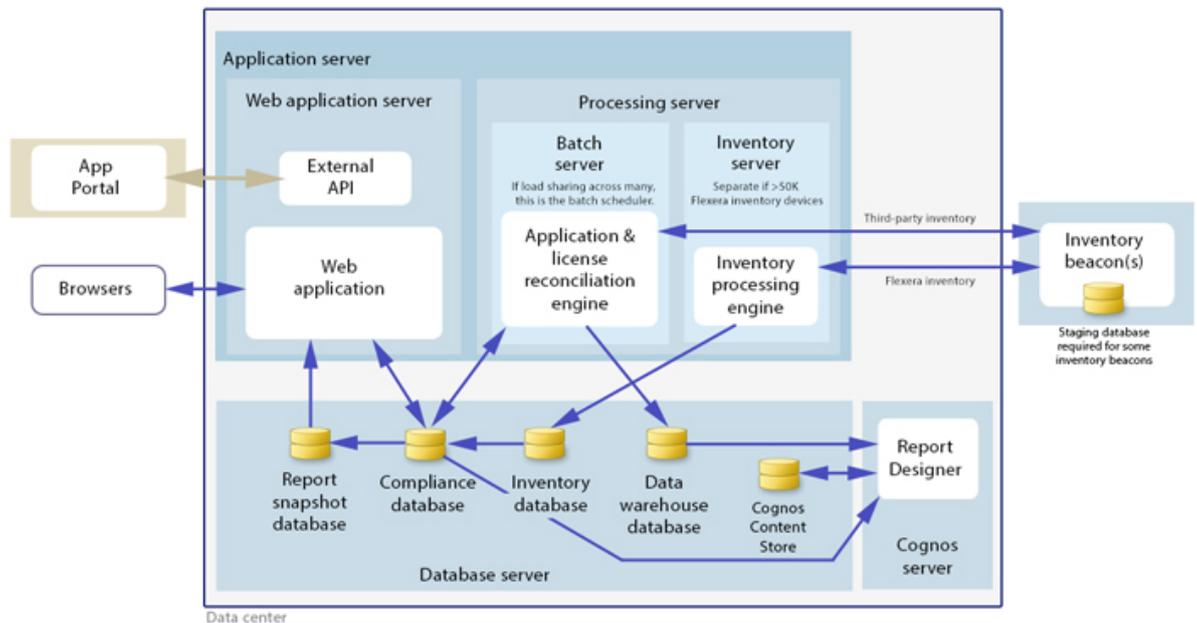
FNMS-27797	Configuration changes to the ServiceNow export tool are overwritten by the defaults during an upgrade
FNMS-28586	Once installer evidence is ignored in the ARL, it is not possible to enable it and use it for linking to applications
FNMS-28588	Duplicate DiscoveredDevice records are created when the discovered device file contains only the DeviceName.
FNMS-28950	FlexNet inventory agent can execute additional SQL code when manually injected into the InventorySetting.xml file.
FNMS-29280	Selecting maintenance from a contract, during Purchase processing, does not link the contract to the purchase
FNMS-30042	An error page may appear when clicking on the licenses linked to software maintenance purchase, when the selected language is not English.
FNMS-30526	The drop-down list is not operational in License properties, Purchases.
FNMS-30692	IP address inventory data from ADDM / BMC Discovery may be truncated
FNMS-30830	FlexNet agent may crash on upload when using netselector algorithm
FNMS-30890	An exception may occur when opening the report 'Savings Through Product Use Rights'
FNMS-30894	Current Oracle License Management Services (LMS) queries may not recognise some Oracle Options
FNMS-31012	During an import, the time required to process file evidence match counts is excessive, during process WriteFileEvidenceMatchCounts
FNMS-31149	A PowerShell script failure, 'The registry key does not exist in the specified location', occurs when the operating system is not set to English.
FNMS-31292	A discovered device record will always link to the original inventory record, even when the name & IP address have changed.
FNMS-31739	Oracle Pluggable database (PDB) does not appear on the Oracle Instances page if it was not started during the first Oracle inventory
FNMS-32006	FlexNet inventory agent produces a new mgsscript file, for every execution.
FNMS-32077	A Purchase with an effective quantity of greater than 2 billion will cause a license reconciliation failure.
FNMS-32083	SAP license recommendation information is not sent to individual SAP systems, managed by CUA.
FNMS-32164	FlexNet Inventory Agent is failing to gather Microsoft Hyper-V VM association when the Hyper-V WMI provider misconfigured.
FNMS-32207	Manually running a rule through the Beacon interface, when a rule is already running, causes the currently running rule to fail.
FNMS-32320	A FlexNet Manager for SAP Applications error may occur when importing recommendations into the Admin Module.
FNMS-32446	ADDM Inventory failing with "Package Nodes between A and P" during the staging table load query

FNMS-32519	Oracle Virtual Machine manager scanning produces a faulty inventory file.
FNMS-32521	Zero-touch inventory from an Oracle Virtual Machine is not returning Virtual guest data.
FNMS-32543	Partial license reconciliation does not reset the consumption of VM Hosts in some cases
FNMS-32619	Performance when processing Unprocessed Purchases is unacceptable.
FNMS-32627	The Devices list on the beacon properties page, is visible for operators when 'Discovery devices' rights are set to Deny.
FNMS-32628	An operator, with no access to discovered devices, can still see discovery data on Rule execution details page.
FNMS-32650	Microsoft App-V 5 adapter is failing to import Installer Evidence from packages in an App-V 5 environment
FNMS-32763	The 'Import SAP Inventories' scheduled task deletes non-SAP intermediate packages that are pending import, causing data to be lost
FNMS-32898	Exemption reason is not being populated for automatic role based exemption of devices
FNMS-33209	Inventory detaches an Oracle database from its owning instance when the OEM server inventory date is greater than the managed Oracle server instance inventory date.
FNMS-33335	An import from SCCM may fail when attempting to import a large amount of Universal Applications
FNMS-33537	An export from FlexNet Manager Suite to ServiceNow may fail while checking the connection
FNMS-33646	During an import, the license values for 'NUP minimum' and 'consumed' may display a value = 0
FNMS-33677	Error when upgrading from FlexNet Manager Suite 2014 R3 to 2016 R1 if the system was previously migrated from FlexNet Manager Platform 9.2
FNMS-33878	Using the Business Importer to import an Asset Type with name longer than 64 characters will fail
FNMS-33934	Exporting contracts to ServiceNow can result in misaligned columns.
FNMS-33977	Displayed errors in FlexNet Manager for SAP Applications may include inappropriate technical information
FNMS-34017	A newly created contract in FlexNet Manager Suite, when exported, creates an invalid contract record in ServiceNow.
FNMS-34086	An import may time out while executing ApplicationAlerts and EvidenceAlerts step in InstalledSoftware
FNMS-34123	Active Directory import fails when an IPv6 address is imported
FNMS-34216	Deleted Computers and Applications are created in ServiceNow, if do not already exist, when FlexNet Manager Suite is not set as 'source of truth'.
FNMS-34712	FlexNet inventory agent on Unix goes into a loop while scanning the file system when non-UTF8 encoded character file names exist.

System Requirements

The system requirements are based on typical implementations in the range of 10,000 to 200,000 devices. For larger implementations, please contact the Flexera Software Global Consulting Services team through your account manager for assistance in the implementation design and deployment.

The following diagram shows the structure of a typical implementation:



Please consult the "Installing FlexNet Manager Suite 2016 R1 On Premises" guide for recommendations on how many servers are appropriate for your implementation.

See the Knowledge Base article [FlexNet Manager for SAP Applications sizing guidelines](#) for information on sizing an implementation that uses only SAP-related functionality.

Network Requirements

Network

- Internet Protocol version 4

Hardware Requirements

Application server

- **Processors:** 4 cores, with up to 8 cores if more than 100 operators
- **Memory:** 8GB
- **System drive:** 40GB

Database server

- **Processors:** 4 cores per 100 operators
- **Memory available to SQL Server:** 16GB per 50,000 devices
- **System drive:** 40GB
- **Data drives:** (typical figures based on "simple" database recovery model)

- **Compliance database data:** Per 10,000 devices: 25GB in first year + 15GB growth per year
- **Compliance database logs:** 20GB per 10,000 devices
- **Inventory database data:** 20GB per 10,000 devices with FlexNet Inventory
- **Inventory database logs:** 10GB per 10,000 devices with FlexNet Inventory
- **Report snapshot database data:** 10GB
- **Report snapshot database logs:** 10GB
- **Data warehouse database data:** 20GB (based on 1,000 licenses)
- **Data warehouse database logs:** 20GB
- **tempdb data:** 5GB per 10,000 devices
- **tempdb logs:** 1GB per 10,000 devices
- **Cognos content store data + logs:** 1GB

Total: 60GB + 80GB per 10,000 devices

Annual growth rate: 15GB per 10,000 devices

FlexNet Designer (Cognos) Application server

- **Processors:** 4 cores
- **Memory:** 16GB+ recommended
- **System drive:** 100GB

FlexNet Beacon

- **Memory:** 1GB minimum, 2GB or higher recommended
- **Minimum free disk space:** 1GB per 10,000 devices

FlexNet Inventory Agent

- **Memory:** 512MB minimum, 2GB or higher recommended
- **Minimum free disk space:** 25MB installation + 100MB workspace

Pre-requisite software

The table below describes the supported operating systems and software pre-requisites of FlexNet Manager Suite 2016 R1 at the time of release. Unless otherwise noted, support for a particular release includes support for all official service packs issued against the same release.

Component	Operating system	Pre-requisite software
Application server	<ul style="list-style-type: none"> Windows Server 2012 R2 Windows Server 2012 Windows Server 2008 R2 x64 SP1-SP2 Windows Server 2008 x64 SP1-SP2 	<ul style="list-style-type: none"> .NET Framework 4.5.x Internet Explorer 10.0 to 11.0 Microsoft Internet Information Services 7.0 to 8.5 Microsoft Message Queuing (MSMQ) Microsoft Access Database Engine (32 bit) SQL Server features: Client Tools Connectivity, Management Tools
Database Server (including Cognos Database Server)	<ul style="list-style-type: none"> Windows Server 2012 R2 Windows Server 2012 Windows Server 2008 R2 x64 SP1 Windows Server 2008 SP1-SP2 Windows Server 2008 x64 SP1-SP2 	<ul style="list-style-type: none"> SQL Server 2014 with compatibility level set to <i>SQL Server 2012</i> (110) SQL Server 2012 SQL Server 2008 R2 SQL Server 2008 <ul style="list-style-type: none"> SQL Server Client Tools, of the same version <p>Notes:</p> <ol style="list-style-type: none"> Multi-tenant installations require the Enterprise Edition of SQL Server. Single-tenant installations can use any edition of SQL Server. FlexNet Report Designer (Cognos) database should be run with compatibility level set to SQL Server 2012 (110).
FlexNet Report Designer /Cognos server	<ul style="list-style-type: none"> Windows Server 2012 R2 Windows Server 2012 Windows Server 2008 R2 x64 SP1 Windows Server 2008 SP1-SP2 Windows Server 2008 x64 SP1-SP2 	<ul style="list-style-type: none"> .NET Framework 4.5.x Registration of ASP.NET C:\Windows\Microsoft.NET\Framework64\v4.0.30319\aspnet_regiis.exe -i) <p>Notes:</p> <ol style="list-style-type: none"> When FlexNet Report Designer is installed on a server other than the database server running the content store database, Microsoft SQL Server Native Client must be installed on the server hosting FlexNet Report Designer. Cognos server is not supported in <i>Multi-tenant</i> installations.
Admin module transport for FlexNet Manager for	<ul style="list-style-type: none"> SAP Basis release between 7.0 and 7.4 	<ul style="list-style-type: none"> The SAP GUI matching the SAP release must be installed ActiveX must be installed

Component	Operating system	Pre-requisite software
SAP Applications	Satellite transport for FlexNet Manager for SAP Applications <ul style="list-style-type: none"> • SAP Basis release between 4.6C and 7.4 	Web browser <ul style="list-style-type: none"> • Microsoft Internet Explorer 10 - 11 • Microsoft Edge for Windows • Google Chrome 46 - 52 • Mozilla Firefox 45 - 51 • Apple Safari 7 - 9 <p>Some Report Designer menu options are not available in the Chrome browser. For further information refer to this IBM Knowledge Center article.</p> <p>Support for future web browser releases cannot be verified; however there are no anticipated issues for future releases.</p> <p>A minimum viewing area of 1024 horizontal pixels is required.</p> <ul style="list-style-type: none"> • Silverlight 5 is required for multi document upload support in Internet Explorer, Firefox and Chrome. • Report Designer will only support the 'Cognos Workspace' when using Safari. Other workspaces are not supported.
FlexNet Inventory Agent	<ul style="list-style-type: none"> • Windows Server 2012 R2 SP1 • Windows Server 2012 R2 • Windows Server 2012 • Windows Server 2008 R2 x64 Server Core • Windows Server 2008 R2 x64 • Windows Server 2008 Server Core • Windows Server 2008 Server Core • Windows Server 2008 x64 Server Core • Windows Server 2008 x64 • Windows Server 2003 R2 • Windows Server 2003 R2 x64 • Windows Server 2003 • Windows Server 2003 x64 • Windows XP Professional • Windows XP Professional x64 • Windows XP Home • Windows Vista • Windows Vista x64 • Windows 7 • Windows 7 x64 • Windows 8 • Windows 8 x64 • Window 10 	

Component	Operating system	Pre-requisite software
	<ul style="list-style-type: none"> • Windows 10 x64 • Ubuntu 12 - 15 (x86-64 only) • Debian 6, 7 (x86-64 only) • RedHat Linux 8 and 9 (x86-64 only) • RedHat Enterprise Linux 3, 4, 5, 6, 7 (x86-64 only) • CentOS 4 – 7 (x86-64 only) • Fedora 6 – 11 & 18 – 23 (x86-64 only) • Oracle Linux 4.5 – 7.0 (x86-64 only) • SuSE Professional 12, 13 (x86-64 only) • SuSE Enterprise Server 11 & 12 (x86-64 only) • Solaris 9, 10, 11 (x86-64), Zones for versions 10 & 11 • Solaris 8, 9, 10, 11 (SPARC), Zones for versions 10 & 11 • Mac OS X 10.6, 10.7, 10.8, 10.9, 10.10, 10.11 • AIX 5.2, 5.3, 6.1, 7.1, LPARs • HP-UX 11.00, 11i, 11i v2, 11i v3, vPars/nPars 	
FlexNet Beacon	<ul style="list-style-type: none"> • Windows Server 2012 R2 • Windows Server 2012 • Windows Server 2008 R2 x64 • Windows Server 2008 • Windows Server 2008 x64 • Windows 7 • Windows 7 x64 • Windows 8 • Windows 8 x64 • Window 10 • Windows 10 x64 	<ul style="list-style-type: none"> • .NET Framework 4.5.x • Any supported web browser • Oracle OLE DB Provider (32 bit), version 10.2.0.3 or later (for Oracle Database inventory) • IBM OLE DB Provider (32 or 64 bit) (for connections to import data from DB2 databases). Whether the driver is 32 or 64 bit is determined by the operating system, for 64 bit operating systems the 64 bit drivers are required. • PowerShell 3.0+ • The following are required for Office 365 <ul style="list-style-type: none"> ○ 64-bit server operating system ○ .NET Framework 4.5.2 ○ Microsoft Online Services Sign-in Assistant (64-bit version) ○ Windows Azure Active Directory PowerShell Module ○ Skype for Business Online PowerShell Module

Compatibility with other products

This section describes the compatibility of FlexNet Manager Suite 2016 R1 with other Flexera Software products at the time of release. Please refer to knowledge base article [Supported Configurations for FlexNet](#)

[Manager Suite 2016 R1](#) for the latest configuration information about this release, which may be more recent than the information below.

Installation on the same server

The following table lists the supported versions of components that can be installed on the same server as a FlexNet Manager Suite 2016 R1 application server.

Component	Version that can be installed on the same server as FlexNet Manager Suite 2016 R1
FlexNet Inventory Agent	2016 R1
FlexNet Beacon	2016 R1
FlexNet Report Designer	2016 R1

Integration with other products

FlexNet Manager Suite integrates with the following products & components. This table details the currently supported versions:

Product / component	Versions that can be imported from
Deployment Manager / Flexera Inventory Manager	8.4, 8.5, 8.6, 9.0, 9.1, 9.2
Microsoft SMS/SCCM	2003, 2007, 2012, 2012 R2, 1511, 1602
IBM License Metric Tool (ILMT)	7.2, 7.5, 9.0, 9.1, 9.2.4 (when running on an IBM DB2 database)
IBM Software Usage Analysis (SUA)	9.0, 9.1 (when running on an IBM DB2 database)
Microsoft Exchange ActiveSync	2007, 2010
Symantec IT Management Suite (Altiris)	6.5, 7.1, 7.5
BMC Discovery (ADDM)	8.3, 9.0, 10.0, 10.1, 10.2, 11.0
BMC Atrium CMDB	8.1 together with Atrium Integrator version 8.1
BMC Remedy ITSM Applications	7.6.04 SP4
HP Discovery and Dependency Mapping Inventory (DDMI)	9.10, 9.30
HPE Universal Discovery (HP-UD)	10.10, 10.11 (Does not include HPE-UD for Oracle LMS)

Product / component	Versions that can be imported from
BladeLogic Client Automation (Marimba)	8.2
Tivoli End Point Manager (BigFix)	8.2
ServiceNow	Dublin, Eureka, Fuji, Geneva Patch 5 & Helsinki
IBM Passport Advantage	as of Nov 2014–
FlexNet Manager for Engineering Applications	14, 15.1, 15.2, 15.3, 15.4, 15.5
Citrix XenApp Server	6.0, 6.5, 7.5, 7.6, 7.8
Citrix XenApp EdgeSight	5.4, 7.6 (requires a Platinum license)
Citrix XenDesktop	5.6, 7.5, 7.6, 7.8 Note: Requires Delivery Group restrictions to be selected on v7.8.
Microsoft App-V Integration Server	4.6, 5.0, 5.1
Oracle Database	8i, 9i, 10g, 11g, 11g Release 2, 12c
VMware vSphere vCenter ESX / ESXi	2.0 to 6.1 2.0 to 6.1 Note remote inventory is not possible on the free license versions of ESXi
Hyper-V	Running on <ul style="list-style-type: none"> • Windows Server 2012 R2 • Windows Server 2012 • Windows Server 2008 R2 x64 Server Core • Windows Server 2008 R2 x64 • Windows Server 2008 x64 Server Core • Windows Server 2008 x64
Oracle VM Server for x86	3.2, 3.3

Inventory components

The following table lists the versions of the FlexNet Beacon and FlexNet Inventory Agent that can be managed by FlexNet Manager Suite 2015 R2 SP5.

Component	Compatible versions
FlexNet Beacon	2014 to 2016 R1 Please refer to

Component	Compatible versions
	compatibility with Citrix below
FlexNet Inventory Agent (Windows)	8.4 to 9.2 and 2014 to 2016 R1
FlexNet Inventory Agent (Linux)	
FlexNet Inventory Agent (Solaris)	
FlexNet Inventory Agent (Mac OS X)	
FlexNet Inventory Agent (AIX)	
FlexNet Inventory Agent (HP-UX)	
Citrix XenApp Server Agent	2014 R3 to 2016 R1

Compatibility of FlexNet Beacon with Citrix XenApp

Gathering Citrix XenApp inventory is not supported with a FlexNet Beacon version 2014 when reporting to FlexNet Manager Suite 2016 R1. In this case, FlexNet Beacon must be upgraded to version 2014 R2 or later.

Compatibility of FlexNet Beacon with Microsoft CAL inventory

Gathering Microsoft CAL inventory requires a FlexNet Beacon version 2016 R1 when reporting to FlexNet Manager Suite 2016 R1.

FlexNet Report Designer compatibility

The following versions of FlexNet Report Designer are compatible with FlexNet Manager Suite 2016 R1.

Component	Compatible versions
FlexNet Report Designer	2016 R1

Known Issues

A list of known issues for the FlexNet Manager Suite 2016 R1 release is available from the Flexera Software support site at the time of release. Please refer to Knowledge Base article [Known Issues for FlexNet Manager Suite 2016 R1](#) for details.

In addition to this list, the following Knowledge Base articles have been created in the Flexera Software [Customer Community](#), in order to provide additional information:

- [The license counts displayed in the Product Summary page may be inaccurate.](#)
- [License Summary page drill-through filters do not include products that are only linked to multi-product licenses](#)

Other Resources and Links

Documentation

Documentation for FlexNet Manager Suite 2016 R1 is provided as online help. From the web user interface, click the question mark icon to launch the help. Additional PDF documents are available from the title page of the online help. Note that both the online help and the additional PDF documents are customized for their different contexts, so that appropriate differences exist between the on premises and cloud versions of all documentation. On-premises customers can also access the additional PDF files from the [Documentation Center](#).

For installation and upgrade documentation, please refer to the section in this document called [Installation and Upgrade Procedures](#).

Other links

Item	Description	Link
Flexera Software website	Information about Flexera Software	http://www.flexerasoftware.com
Support	Support website, including the knowledge base	https://flexeracommunity.force.com/customer
Product downloads	Flexera Software Product and License Center	https://flexera-fno.flexnetoperations.com/flexnet/operations/logon.do
Email sign-up for product announcements	For notification of FlexNet Manager Suite software updates, including hot fixes	http://learn.flexerasoftware.com/SLO-FMS-Software-Content-Library-Updates