

FlexNet Operations 2022 R1 On Premises Release Notes

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Introduction

This Release Notes document summarizes the features, enhancements, and updates delivered with the FlexNet Operations 2022 R1 On Premises release. The document includes the following information:

- [Resources](#)
- [Features and Enhancements](#)
- [System Requirements](#)
- [Resolved Issues](#)
- [Known Issues](#)
- [Special Notes](#)
- [Legal Information](#)

Resources

These resources are available for more information about FlexNet Operations and other Revenera products:

- [Revenera Resources](#)
- [FlexNet Operations Videos](#)

Revenera Resources

The following resources can help you stay up to date with FlexNet Operations news and product knowledge:

- In addition to providing case management, the [Revenera Community](#) site can help you quickly find answers to your questions by searching content from other customers, product experts, and thought leaders. You can also post questions on discussion forums for experts to answer. For each of Revenera's product solutions, you can access forums, blog posts, and knowledge base articles. You can also access the Product and License Center from the Community's **Other Resources** menu to download Revenera products.
- You can find documentation for FlexNet Operations and all other Revenera products on the [Revenera Product Documentation](#) site.
- The [Revenera Learning Center](#) offers free, self-guided, online videos to help you quickly get the most out of your Revenera products. You can find a complete list of these training videos in the Learning Center.
- Customers who have purchased a maintenance contract for their product(s) can submit a support case or check the status of an existing case by making selections on the **Get Support** menu of the Revenera Community:

<https://community.revenera.com>

FlexNet Operations Videos

These brief, informative videos walk you through the getting-started exercises found in the *FlexNet Operations User Guide* (online help or PDF version). We recommend that you first read the appropriate “Getting Started” section in the *User Guide* to gain an understanding of the concepts it covers, and then click the section title in the table below to view the video.

Guide	Topics
Getting Started with Entitlement Management	Creating an account, a user, a product, and an entitlement.
Getting Started with FlexNet Embedded Licensing	Setting up a publisher, identity, and a licensed product. Creating a device and activating its license. Creating and provisioning FlexNet Embedded license servers.
Getting Started with Electronic Software Delivery	Creating a producer and download packages, associating download packages with a product, creating files, associating files with download packages, and viewing and downloading files from the FlexNet Operations End-User Portal.
Getting Started with Usage Management	Creating a usage-based license model, a feature, a product, and an entitlement. Obtaining the license server URL to which the usage data is sent. Running a usage-capture client. Viewing usage information graphs and gauges.
Getting Started with FlexNet Publisher License File-Based Licensing	Activating and returning a certificate license.
Getting Started with Cloud Licensing Service	Creating a cloud-hosted license server.
Getting Started with FlexNet Customer Growth	Customer growth concepts and configuring notifications for expiring entitlements and expired entitlements.

Features and Enhancements

Features and enhancements were added to the following areas of FlexNet Operations On Premises in the 2022 R1 release:

- [Device Management Enhancements](#)
- [Entitlement Management Enhancements](#)
- [License Management Enhancements](#)
- [Download Package Management Enhancements](#)

Device Management Enhancements

This section describes the enhancements introduced in 2022 R1 for managing devices.

- [Return of a FlexNet Embedded Device with Expired/Inactivated Licenses Now Allowed](#)
- [Device ID Now Hyperlinked](#)
- [Ability to Modify Metered License Counts on Cloud License Servers](#)

Return of a FlexNet Embedded Device with Expired/Inactivated Licenses Now Allowed

Currently, a user in the Producer Portal or End-User Portal is not allowed to return a FlexNet Embedded device (license server or standalone device) if one or more of its licenses are expired or inactive *and* the return process is configured to transfer the device's licenses to another device. When the user attempts to initiate the device return, the following message is displayed: "Either the feature limit has been exceeded or its license has expired, or the feature is not allowed at all on the host."

However, some customers might want the ability to return a FlexNet Embedded device even though one or more of its licenses are expired or inactive. In this release, a customer can now request to have this behavior enabled. If enabled, the return process would be as follows:

- If some of the licenses are expired or inactive, the device is returned, and only those licenses that are active are transferred to the destination device. Any expired or inactive licenses are returned to the appropriate entitlement line-item counts in FlexNet Operations.
- If all the device's licenses are expired or inactive, the device is returned, but no licenses are added to the destination device and instead are returned to the appropriate entitlement line-item counts.

If you require this modified behavior, set `skip.expired.line.items` to `true`.

Device ID Now Hyperlinked

Previously, a device's **Name** value on the **Devices** page list was hyperlinked to the **Device Details** page. Now, a device's **ID** value in the list on this page is also hyperlinked to the **Device Details** page. This enhancement enables producers to hide the **Device Name** (for security purposes, for example) while still providing users access to the **Device Details** page through the **ID** hyperlink.

Ability to Modify Metered License Counts on Cloud License Servers

In this release, it is now possible to change the counts of metered licenses mapped to Cloud license servers. This enhancement enables producers and end customers to increase, decrease, or completely remove the number of licenses mapped to a license server, within the count of licenses specified in an entitlement line item.

This feature is available through the UI only, not through Web Services.



Note - It is not possible to modify counts of metered licenses mapped to local license servers.

Entitlement Management Enhancements

This section describes the enhancements introduced in 2022 R1 for managing entitlements.

Licenses Associated with Inactive or Obsolete Line Items Automatically Removed from CLS Instances

When the state of an entitlement line item is changed to inactive or obsolete, any unused concurrent or metered licenses associated with the line item can now be automatically removed from those CLS instances to which the line item is mapped. Any currently in-use licenses associated with the line item are automatically removed from the CLS instances once users return them.

The automatic removal of licenses occurs when the line item is made inactive or obsolete using a **setLineItemState** or **setEntitlementState** SOAP request.

This feature requires that the configuration option **Remove licenses from CLS when line item state is changed to Inactive/Obsolete** be *selected* and that **Allow used entitlement/line item state change to Inactive or Obsolete** be *unselected*. (Both options are found under **System > Configuration > FlexNet Operations > General Options** in the Producer Portal.)

License Management Enhancements

This section describes the 2022 R1 enhancements to license management and models.

New Configuration Option to Batch-Rehost All Fulfillments

Currently, during a Batch Rehost process, if a producer selects to rehost fulfillments from more than 10 line items belonging to the same entitlement, a maximum of 10 fulfillments is rehosted. This limit can cause an issue when a producer wants to rehost all fulfillments on a given host and the host is activated with an entitlement that has more than 10 line items.

The following configuration option has been added in this release to enable a producer to rehost *all* available fulfillments for an entitlement during a Batch Rehost. (The 10-fulfillment limit is not exercised.)

System > Configure > FlexNet Operations > General Options > Process all line items in an Entitlement during Batch Rehost

This option applies to FlexNet Publisher fulfillments only.

Download Package Management Enhancements

The following enhancements to the management of download packages were added in the 2022 R1 release.

- [Geographic Restrictions for Downloading Packages](#)
- [Download Package Selection Across Pages in the End-User Portal](#)
- [Custom Activation ID Attribute for Entitlement Line Items Now Displayable on Download Order Page](#)

Geographic Restrictions for Downloading Packages

Producers can now restrict access to packages for file downloads to certain countries, and optionally to regions in those countries. This feature helps ensure that software approved for a specific location (country or country/region) can be downloaded by accounts only in that location.

The **Restrict Download Package** page (accessed from the **View Download Package** page in the Producer Portal) now enables producers to add countries or specific regions in countries to which the download package will be available. In the End-User Portal, only users in those accounts assigned to these geographic locations will have access to the download package, even if the accounts are otherwise entitled to the download.

Producers can select all countries with a single click when configuring geographic restrictions for a download package. This option is especially helpful when the list of countries is long. Producer users can quickly select all countries (and then optionally unselect the few that should not included.)

Note the following about geographic restrictions:

- The geographic restrictions are in addition to the existing Grant or Deny Account Access restrictions available on the **Restrict Download Package** page. Accounts must meet both sets of restrictions in order to access the download package.
- If you set up geographical restrictions and sell through Channel Partners, you must include a Channel Partner's country and region in the geographical restriction list of countries and regions for a download package.

Download Package Selection Across Pages in the End-User Portal

In the previous release, users in the End-User Portal could select packages to download from only the current page in the **Download Packages** window; package selections on other pages were not processed during the download. If users wanted to download packages listed on other pages, they were forced to perform downloads one page at a time.

In this release, users can now download packages selected across pages. The following mechanisms were added to support this feature.

Package Selection on a Given Page

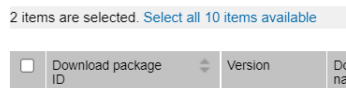
To initiate the download process, select the **View > View Download Packages** option on the **List Entitlements** page. This option opens the **Download Packages** window, where you can view a list of the software download packages available for the selected line items and then download selected (or all) packages.

In the grid that lists the download packages for a specific page, a tool tip is now displayed when you hover over the “check box” column in the grid header, stating “Click to select all items on this page”.

Package Selection Across Pages

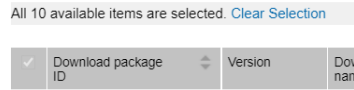
The following mechanisms are introduced to help in the selection of packages across pages.

- As you select packages across individual pages, a message above the grid updates to the number of currently selected packages out of the total number of all available packages (across all pages). The message also provides the option to select all the available packages.



- If you click **Select all *n* items available** to select all packages, all packages (and files in those packages) are selected on every page. However, once you click this option, you cannot unselect

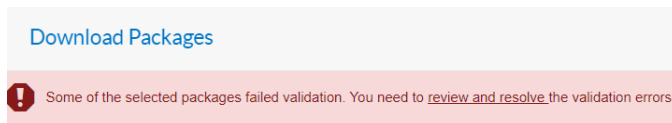
specific packages or files within those packages. To make individual selections, you must click the **Clear Selection** toggle and reselect specific packages (and specific files in those packages).



Download Validation

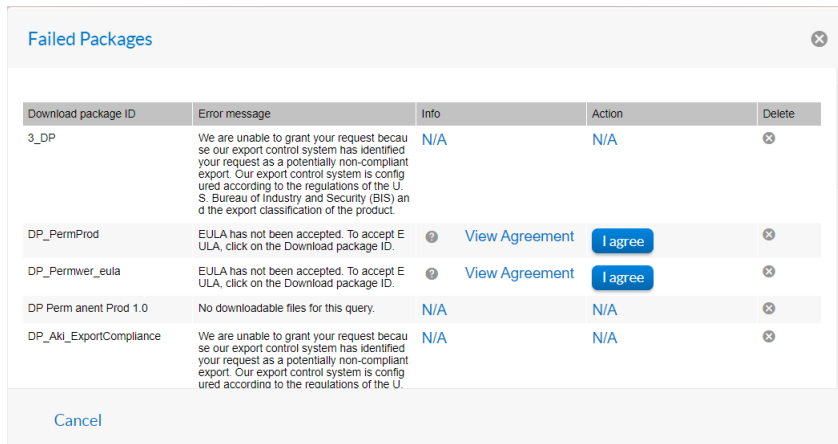
When you click **Download** to start the package download process, the packages are first validated. The following new mechanisms assist in managing the package validation phase of the download, especially when multiple packages have been selected across pages.

- If any packages fail validation, the following error message is now displayed.



All of the download packages associated with the entitlements you selected are listed.

- You can click **review and resolve** in the message to open the **Failed Packages** window, listing the packages that failed validation. If an action is available to remediate the validation error for a listed package (for example, agree to an EULA that had not yet been accepted), you can perform that action directly from the window. If no action is available, you can choose to remove the package from the download process. The option to cancel the entire download process is also available.



Custom Activation ID Attribute for Entitlement Line Items Now Displayable on Download Order Page

Existing functionality has enabled producers to create a custom attribute for entitlement line items and use this attribute in place of the **Activation ID** (by hiding the default **Activation ID** attribute) on the **List Entitlements** window in the End-User Portal. However, producers were not able to make a similar replacement on the **Download Order** window (which is displayed when the user clicks **Download Now** for a line item on the **List Entitlements** window).

In this release, FlexNet Operations can now automatically replace the **Activation ID** property on the **Download Order** page with the custom activation ID attribute (such as used on the **List Entitlements** window). To accomplish this, an administrator sets the following new configuration option with the name of the custom activation ID attribute:


System > Configure > End-User Portal Setup > DownloadOrderPage > Show Custom Activation ID
 <custom_attribute_name>


The custom activation ID attribute now shown on the **Download Order** window is automatically populated with the value assigned to the entitlement line item corresponding to the order. Refer to the following table for exceptions to this behavior:



Value of custom activation ID attribute for a given entitlement line item	Custom attribute is/is not designated for “Show Custom Activation ID”	Activation ID item displayed on Download Order window for line item
Any <value> other than “Not Applicable” and “Not Required”	Designated	The custom activation ID attribute with the value <value>. This replaces the Activation ID property and its value.
“Not Required”	Designated	The custom activation ID attribute with the “Not Required” value. This replaces the Activation ID property and its value.
“Not Applicable”	Designated	The Activation ID property and its value.
No value	Designated	The Activation ID property and its value.
Any <value> or no value	Not designated	The Activation ID property and its value.

System Requirements

Detailed system requirements for FlexNet Operations 2022 R1 On Premises include the following.

Requirement	Description
Supported Operating Systems	<ul style="list-style-type: none">● Microsoft Windows Server 2022● Microsoft Windows Server 2019● Microsoft Windows Server 2016● Red Hat Enterprise Linux 8.4 (64-bit)● Virtual appliance: Linux (64-bit) based on CentOS-7  <hr/> <p>Important - All Linux platforms must be Linux Standard Base (LSB) compliant.</p>
Supported databases	<ul style="list-style-type: none">● SQL Server 2019● SQL Server 2017

Requirement	Description
Servers	 <p>Note - For best performance, availability, and reliability, install each FlexNet Operations component on a separate host.</p> <p>For Windows servers (each)</p> <ul style="list-style-type: none"> • Dual core • 8 GB of RAM for each component (FlexNet Operations, Cloud Licensing Service, Usage Analytics Service) • Minimum of 10 GB free disk space <p>For Linux servers (each)</p> <ul style="list-style-type: none"> • Dual core • 8 GB of RAM for each component (FlexNet Operations, Cloud Licensing Service, Usage Analytics Service) • Minimum of 10 GB free disk space • Current directory (.) must be in the path of the user who starts the FlexNet Operations server <hr/> <p>For Virtual Appliance</p> <ul style="list-style-type: none"> • 8 GB of virtual RAM • 8 GB of virtual disk space • VMware requires about three times as much hard disk space at Open Virtualization Format package deployment time
Application server	WildFly version 8.2.0, with default configured heap space minimum of 4 GB and maximum of 8 GB
Message broker software	RabbitMQ version 3.10.6 (with Erlang/OTP v13.0.2 (25))
Supported Java development kits	<ul style="list-style-type: none"> • Oracle JDK 1.8 • OpenJDK 1.8
Supported web browsers	<ul style="list-style-type: none"> • Microsoft Edge • Mozilla Firefox 101.x • Google Chrome 102.x

Requirement	Description
Supported FlexNet licensing modules	<ul style="list-style-type: none"> FlexNet Publisher Toolkit 11.16.1.0 or later FlexNet Embedded Toolkit 2015 R2  <hr/> <p>Note - FlexNet Operations On Premises supports these FlexNet Embedded host ID types: ETHERNET, INTERNET, INTERNET_6, FLEXID9, FLEXID10, STRING, USER, VM_UUID, EXTENDED, PUBLISHER_DEFINED, and CONTAINER_ID.</p>
Supported vendor certificate generators	<p>The current versions of the VCG kit are 12.11.0 and 16.2.2.0.</p> <p>These VCGs were tested with the following compilers:</p> <ul style="list-style-type: none"> Windows—Visual Studio 2010 Professional Edition Linux—gcc 4.1.2 (RHEL 5.0) Linux—gcc 4.4.4 (RHEL 6.0)  <hr/> <p>Note - The 12.11.0 VCG is built with FlexNet Publisher 11.11.1 and shares the same minimum C compiler requirements on each supported platform. (See the FlexNet Publisher 11.11.1 release notes for C/C++ compiler support.)</p>
Supported upgrade paths	<p>You can upgrade from the following previous FlexNet Operations versions to the current version:</p> <ul style="list-style-type: none"> 2020 R1.1 2021 R1
Supported LDAP directory servers	Windows 2012 Active Directory

Resolved Issues

Issues in the following areas were resolved in the 2022 R1 release:

- [Account and User Management Issues Resolved](#)
- [Security Issues Resolved](#)
- [Entitlement Management Issues Resolved](#)
- [Electronic Software Delivery Issues Resolved](#)
- [Device Management Issues Resolved](#)
- [License Management Issues Resolved](#)

- [Export and Import Issues Resolved](#)
- [SOAP and REST Web Services Issues Resolved](#)
- [Download Package Management Issues Resolved](#)
- [Email Notification System Issues Resolved](#)
- [Product Management Issues Resolved](#)

Account and User Management Issues Resolved

The following issue was resolved for the management of accounts and users in the 2022 R1 release.

[Advanced Search of Accounts by Custom Attributes No Longer Failing During Bulk Upgrade Setup](#)

In the previous release, during the configuration of an entitlement Bulk Upgrade or Bulk Renewal operation, attempts to use a custom attribute as a criterion to perform an Advanced Search on accounts would fail with an application error. This issue is now fixed so that using a custom attribute to search accounts no longer fails during the Bulk Upgrade or Bulk Renewal setup.

Security Issues Resolved

The following security issues have been resolved in this release.

- [Clear Text Password No Longer Exposed](#)
- [Configuration Added for Re-Validating Users Before Sending Entitlement Emails](#)
- [Configuration Added for Locking Out Users after Successive Attempts to Reset Password](#)

[Clear Text Password No Longer Exposed](#)

A potential information leakage issue has been addressed, where an encrypted password was identified as part of the HTML source of the Create License Technology page.

As a result of the fix, the “test connection” action on the page can now be performed only upon saving the changes when creating and updating the license technology.

If a user attempts to test the connection before saving their changes, an error message is displayed which prompts the user to save their changes to the license technology before continuing.

[Configuration Added for Re-Validating Users Before Sending Entitlement Emails](#)

A new configuration option **Use Recaptcha validation when sending entitlement emails** has been introduced to enable the Google ReCAPTCHA validation mechanism when sending entitlement emails. The option is located under **System > Configure > FlexNet Operations > General Options**.

If selected, entitlement emails will only be sent after re-authentication using the Google reCAPTCHA mechanism.

This option works in conjunction with the following existing options for setting the site key and reCAPTCHA password:

- **System > Configure > FlexNet Platform Server > General Options > Recaptcha Site key**
- **System > Configure > FlexNet Platform Server > General Options > Recaptcha Secret password**

If selected, the **List Entitlements** email preview page of the Producer Portal shows the “I’m not a robot” check box which enables the user to send an entitlement email.

By default, this option is unselected.

Configuration Added for Locking Out Users after Successive Attempts to Reset Password

The following configuration parameters are now available to enable FlexNet Operations to lock out users after a succession of invalid attempts to reset their password:

- **System > Configure > Validators > Lock out user upon repeated password reset attempts**—The option that, when enabled, locks out a user for a set amount of time after successive failed password-reset attempts. (The number of consecutive failed attempts is defined as part of the existing **FlexNet Platform Server** configuration, as described below.)
- **System > Configure > Validators > Lockout period after failed reset attempts**—The number of minutes a user is locked out before allowed to reset password again. The lockout period begins immediately after the user’s last password-reset attempt.

These parameters work in conjunction with the following existing parameter, which sets the limit on the number of consecutive password-reset attempts allowed before a user is locked out.

System > Configure > FlexNet Platform Server > General Options > Consecutive Failed Authentications

This added functionality is part of an ongoing effort to improve overall FlexNet Operations security.

Entitlement Management Issues Resolved

The following issues were resolved for entitlement management in the 2022 R1 release.

- [Resolved Time Zone Issue in Entitlement Search](#)
- [Resolved Issue with Entitlement Line Item Creation for Self-Registered Users](#)
- [Incorrect Date Conversion for Custom Attributes](#)
- [Line Item’s Last Modified Time No Longer Fails to Update](#)
- [Advanced Search of Accounts by Custom Attributes No Longer Failing During Bulk Upgrade Setup](#)
- [Removal/Unlinking Older Maintenance Line Items from an Entitlement Line Now Possible](#)
- [Disparity Between Mapped License Quantities for the Same “Last Modified” Date](#)
- [Issue with Mapping Over 2100 Activation IDs Addressed](#)
- [All Lines for New Entitlement Now Listed Whether or Not They Define Values for New Custom Attributes](#)

- Information in New Product or Entitlement No Longer Overwriting Information in Other Opened Products and Entitlements
- Export of All Entitlements From End-User Portal Now Successful
- “Email Template variation” Field No Longer Resetting Itself During Entitlement Creation
- Attempts to Transfer an Entitlement Count Back to Its Original Entitlement No Longer Failing
- New Checks in Place to Prevent Concurrent Transfer and Mapping Operations Against the Same Entitlement Line Item
- Changes to Line Items Now Shown on License Server

Resolved Time Zone Issue in Entitlement Search

When performing an advanced search on entitlement counts in the FlexNet Operations Producer Portal, the local time zone of the user performing the search is taken into consideration. However, in the previous release, this was different when an entitlement search was performed using Web Services, where the user’s local time zone was not considered. As a result, entitlement search result would differ depending on the search method.

To produce search results that are consistent with those reported through the Producer Portal, customers using Web Services can now use the search parameter `lastModifiedDate`. This ensures that the user’s time zone is taken into consideration.

Resolved Issue with Entitlement Line Item Creation for Self-Registered Users

Previously, a stack overflow error could be observed when an entitlement line item was created and if the entitlement was associated with a self-registered user. This has now been resolved.

Incorrect Date Conversion for Custom Attributes

An issue could be observed in the FlexNet Operations Producer Portal where custom attributes of type date were converted incorrectly to an earlier date upon saving the associated entitlement or product. This issue only occurred in deployments hosted in AWS.

This has now been resolved.

Line Item’s Last Modified Time No Longer Fails to Update

In the previous release, when a license was removed from a device, the corresponding line item’s last modified time was not updated. This issue no longer occurs.

Removal/Unlinking Older Maintenance Line Items from an Entitlement Line Now Possible

Previously, when multiple maintenance line items were linked to a single entitlement line, removing older maintenance line items was not possible without removing the more recent maintenance line items. This issue has now been fixed. Older maintenance line items can be removed/unlinked from the entitlement line.

Disparity Between Mapped License Quantities for the Same “Last Modified” Date

Previously, when users mapped licenses to a device, the last modified timestamp on a line item was updated *before* the update to the mapped-license quantity was applied. As a result, customers who pulled data from FlexNet Operations (for example, using the **getActivatableItemsQuery** SOAP method) before the mapped-license quantity was updated would see a stale quantity value corresponding to the last modified date in the response. However, users would then observe the correct mapped-license quantity for that same date in the FlexNet Operations portals.

Now the last modified time on the line item is updated *after* the change to the mapped license quantity.

Issue with Mapping Over 2100 Activation IDs Addressed

In the previous release, attempts to map more than about 2,100 activation IDs at once to a device would result in an error. This error has now been fixed so that such mappings should complete successfully.

However, users should still apply caution when mapping extremely large numbers of activation IDs in one step. If the number of activation IDs is large, processing can be very slow; and, if the number of IDs is large enough, a timeout can still occur.

Hence, the general recommendation is not to map extremely large numbers of activation IDs in one step. Use an alternate process instead.

All Lines for New Entitlement Now Listed Whether or Not They Define Values for New Custom Attributes

In the previous release, when a new custom attribute was configured to display as a column on the **List Entitlements** page in the Producer and End-User portals, an issue could occur when new line items were added to an entitlement. Only those new line items that defined a value for the attribute were displayed on the **List Entitlements** page and in line-item lists on other pages in both portals. New line items that left the attribute blank were not listed.

This issue is now resolved so that all new line items for an entitlement are displayed, whether or not the custom attribute for a given line item has been set. (A prerequisite for this fix is that the custom attribute must allow only text, date, or number values.)

Note that, to ensure that *existing* entitlement line items are visible once a new custom attribute is enabled, users need to do either of the following:

- Make sure the custom attribute for each existing line item has a value set.
- For those line items that have a null value for the custom attribute, programmatically update the attribute with a dummy value, such as “N/A”.

Information in New Product or Entitlement No Longer Overwriting Information in Other Opened Products and Entitlements

In the previous release, when a producer created and saved a new product or entitlement while an existing product or entitlement was currently open in the same browser session, the information in the new product or entitlement could overwrite information in the corresponding existing entity (as seen when the existing entity was refreshed). The same problem was seen on Bulk Entitlement, Test Entitlement, and Test Bulk Entitlement pages. This issue has now been resolved.

Export of All Entitlements From End-User Portal Now Successful

An attempt by a producer user to export all entitlements from the End-User Portal was failing in previous releases. This issue should no longer occur.

“Email Template variation” Field No Longer Resetting Itself During Entitlement Creation

Email Template variation field is no longer resetting itself back to the default **Select** value whenever users attempt to add channel partners during the entitlement creation process.

Attempts to Transfer an Entitlement Count Back to Its Original Entitlement No Longer Failing

In the previous release, an attempt to transfer a license count for an entitlement line item under certain conditions could fail with the following error message: “The number of copies cannot be set to a number less than the fulfilled amount *n*.” The error was occurring (both in the Producer and End-User portals and for the **transferLineItem** Web Services method) even though the count being transferred was currently not fulfilled or mapped to any device. This issue is now resolved.

New Checks in Place to Prevent Concurrent Transfer and Mapping Operations Against the Same Entitlement Line Item

In the previous release, users were allowed to run a license-mapping operation against an entitlement line item while a license transfer was currently in progress against this same line item. The concurrent operations could result in corrupted license counts.

Now, during the transfer of an entitlement line to a different account or entitlement (through either the Producer or End-User Portal or the **transferLineItems** SOAP request), users are prohibited from mapping/unmapping licenses from the line item to/from a device.

If users attempt to perform a mapping operation during a license transfer that involves the same line item, the following message is displayed in the UI: “A license transfer is in progress for the activation Id <activationId>. Please wait until this has completed.” Additionally, the line item currently being transferred will be unavailable for mapping operations until the transfer is completed.

Changes to Line Items Now Shown on License Server

Previously, in some cases when a line item was updated (for example, to extend an expiration date), the changes to the line item were not displaying on the relevant license server. The situations that caused this issue have now been resolved.

Electronic Software Delivery Issues Resolved

The following issues were resolved for Electronic Software Delivery (ESD) in the 2022 R1 release.

- [Data Import Template Functionality Now Applies Maintenance Expiration Date to ESD Entitlements](#)
- [Unwanted Text String No Longer Showing in License Agreement Content](#)
- [“Extended Description” Field on “Add File” Page Returned to Its Previous Maximum Length](#)

Data Import Template Functionality Now Applies Maintenance Expiration Date to ESD Entitlements

Previously, when a maintenance line item was linked to an ESD entitlement line item, the maintenance expiration date was not updated to the entitlement line item. This issue no longer occurs.

For more information about the visibility of download packages based on the maintenance line expiration, see the following topic in the “Getting Started with Electronic Software Delivery” section of the *FlexNet Operations User Guide*:

https://docs.revenera.com/fno2021r1_onprem/producer/Content/helplibrary/opsGS_ESD_SetupAdvTopics.htm

Unwanted Text String No Longer Showing in License Agreement Content

In the previous release, the following string could be included in the End User License Agreement (EULA) contents displayed on the **License Terms and Conditions** page for a given download package in the End-User Portal:

```
??EULAServlet.ExportCompliance.DefaultContent???
```

The unwanted string is no longer displayed.

“Extended Description” Field on “Add File” Page Returned to Its Previous Maximum Length

An issue was reported that the maximum size for the **Extended Description** field on the **Add File** page had changed from 1000 to 2000 characters. In this release, the size discrepancy has been resolved: the field’s previous 1000-character maximum size has been restored.

Device Management Issues Resolved

The following issues were resolved for the management of devices in the 2022 R1 release.

- [Devices with Names Containing HTML-like Characters Now Handled Properly](#)
- [Details for Served Devices Now Visible to Partners](#)

Devices with Names Containing HTML-like Characters Now Handled Properly

When a device was created using characters in its name that could be confused with HTML tags, the **Device Details** page sometimes rendered the device name incorrectly. This issue has been fixed so that the device name is rendered correctly with all valid device name characters.

Details for Served Devices Now Visible to Partners

Partner users in the End-User Portal (or using SOAP web services) are now able to view the details of a device whose features are served by a license server belonging to a customer account associated with the partner. This capability exists as long as the license server is licensed with an activation ID that is mapped to both the partner's account and the customer's account. Previously, partners could not view served-device details in an associated customer account.

License Management Issues Resolved

The following issue involving license management has been resolved in the 2022 R1 release.

Concurrent License Requests Now Handled Properly on CLS Instances

In the previous release, concurrent license updates for a Cloud License Server (CLS) instance could result in the failure of one of the requests, thus leading to a count mismatch between the FlexNet Operations UI and the CLS REST endpoint output. This issue has been resolved so that concurrent requests are handled properly without leading to any count mismatch.

Export and Import Issues Resolved

The following issues related to the Data Export and Import functionality was resolved in the 2022 R1 release.

- [Unrestricted Data Upload for an Import Now Addressed](#)
- [Links Between License Models and Part Numbers Retained During Product Updates with Template](#)

Unrestricted Data Upload for an Import Now Addressed

Previously, FlexNet Operations would allow almost any file type to be uploaded from the **Import Data Objects** window, including file types not supported by the import. Although FlexNet Operations would throw an error for the unsupported file type when the actual import of the uploaded file was attempted, the fact that any file could be uploaded to a web root folder was a security issue.

To address this issue, FlexNet Operations now shows only supported file types (Unicode text and executable jar) for an import at the time the user selects the file from the **Import Data Objects** window. If the selected file type is unsupported for the type of upload requested, an error is thrown, telling the user to select a file type corresponding to the upload type.

Links Between License Models and Part Numbers Retained During Product Updates with Template

Updating products using the **CreateUpdateProduct** template is no longer removing the links between part numbers and license models.

SOAP and REST Web Services Issues Resolved

The following issues related to FlexNet Operations Web Services were addressed in the 2022 R1 release:

- “generateCapabilityResponse” Method Now Properly Acknowledging Inactive or Obsolete Entitlement Line Items
- “getEntitlementLineItemPropertiesQuery” with “restrictToItemsWithCount” Filter Now Returning Correct Items
- “getAccountsCount” SOAP web service (UserAcctHierarchyService v3) Now Returning Correct Totals
- Replace Operation in updateProduct Now Properly Replacing License Model
- Integration Issues with Versioned SOAP Web Services Resolved

“generateCapabilityResponse” Method Now Properly Acknowledging Inactive or Obsolete Entitlement Line Items

In the previous release, the **generateCapabilityResponse** method (in the **ManageDeviceService** SOAP web service) would return a SUCCESS status in the capability response even though one or more of the requested line items were obsolete or inactive. While the obsolete or inactive line items were *not* mapped to the device as expected, the resulting SUCCESS status was misleading.

Now, the generated capability response shows a PARTIALFAILURE status when one or more of the requested line items are obsolete or inactive. The <reason> element in the response indicates which licenses could not have their copies increased (in this case, due to their obsolete or inactive status).

“getEntitlementLineItemPropertiesQuery” with “restrictToItemsWithCount” Filter Now Returning Correct Items

A **getEntitlementLineItemPropertiesQuery** request in which the **restrictToItemsWithCount** filter is set to true now correctly returns only those activation IDs whose counts are greater than 0. Previously, the response included activation IDs with 0 counts. (The **getEntitlementLineItemPropertiesQueryRequest** method belongs to the **EntitlementOrderService** SOAP web service.)

“getAccountsCount” SOAP web service (UserAcctHierarchyService v3) Now Returning Correct Totals

The **getAccountsCount** SOAP web service (version 3 of **UserAcctHierarchyService**) now returns correct totals when multiple account types are specified in the request.

Replace Operation in updateProduct Now Properly Replacing License Model

The **REPLACE** operation for **opType** in the **updateProduct** method (in the **ProductPackagingService** SOAP web service) now properly replaces a license model for a product. Previously, the operation was adding a license model to the product instead of replacing one.

Integration Issues with Versioned SOAP Web Services Resolved

Previous releases experienced a Web Services problem in which a "/" in the service binding name (for example, **v4/EntitlementOrderService**) could result in an error and failed integration. The error occurred on certain integration platforms and libraries such as Tibco BW, Windows Communication Foundation and .Net Core.

To resolve this issue, new versions of the **EntitlementOrderService** and **UserAcctHierarchyService** web services have been introduced. Both use a binding name format that omits the “/”:

- **EntitlementOrderService** (v5)
- **UserAcctHierarchyService** (v4)

Download Package Management Issues Resolved

The following issues were resolved for the management of download packages in the 2022 R1 release:

- [Updates to the Failed Packages Window](#)
- [Multiple-Package Download No Longer Failing When Some Packages Contain No Files](#)
- [Proper Behavior on “Failed Download Packages” Window After All Failed Packages Are Cleared](#)
- [“I agree” Option to Resolve Unaccepted EULAs Now Working Properly](#)
- [Reports of Download Progress Greater than 100 Percent No Longer Occurring](#)
- [All Versions of macOS Now Supported by Download Manager](#)
- [Correct Linux Path for Logs](#)

Updates to the Failed Packages Window

The **Failed Packages** window has been updated to provide information about how to handle the packages that failed to download due to validation issues during the current download process. (The **Failed Packages** window is opened when you click **review and resolve** from an error message that is displayed on the **Download Packages** window when certain package selections fail to download.)

Multiple-Package Download No Longer Failing When Some Packages Contain No Files

When an end user downloads multiple packages from the **Download Packages** window and one or some of the selected packages contain no files, the user is now allowed to proceed to download files for the remaining download packages. Only when none of the selected packages contain files will an error occur and the download process not be allowed to proceed.

Previously, if one or some of the selected packages contained no files, the entire download process failed with an error (either on the **Download Packages** window or the possible subsequent **Failed Packages** window).

Proper Behavior on “Failed Download Packages” Window After All Failed Packages Are Cleared

Once the EULAs have been accepted for all applicable packages listed on the **Failed Download Packages** window, the following behavior now occurs:

- The window shows the message “No failed packages remaining”, instead of the misleading message “No downloads available”.
- When you click **Cancel** to return to the previous **Download Packages** window, this window now updates properly. It no longer prompts the user to review and resolve failed-package validation when no packages are remaining to validate.

“I agree” Option to Resolve Unaccepted EULAs Now Working Properly

By design, when you select a package (using the selection column) that contains an unaccepted EULA from the **Device > Downloads** tab, and click **Download**, the package validation process results in a “failed validation” message that includes a **review and resolve** link. When you click the link, a **Failed Packages** window is displayed, enabling you to accept the EULA (and address any other problems). Previously, when you clicked **I agree** on this window to accept the EULA, the acceptance operation would hang. This issue has been fixed so that the **I agree** option now properly accepts the EULA.

Reports of Download Progress Greater than 100 Percent No Longer Occurring

Download Manager was reporting a progress of greater than 100% for certain files. This problem has now been fixed in the latest Download Manager version (1.8) so that file download progress is reported correctly. (Users are prompted to install this latest version when they initiate their first download in the 2022 R1 release.)

All Versions of macOS Now Supported by Download Manager

The latest version of Download Manager (1.8) now supports all versions of macOS. It works seamlessly on versions prior to macOS 10.15 (for example, 10.14, 10.13, and so forth), on macOS 10.15 (Catalina), and on latest macOS version, which is 11 (Big Sur).

Correct Linux Path for Logs

On Linux, Download Manager logs are properly located in the path `/var/log/DownloadManager/log.txt`.

Email Notification System Issues Resolved

The following issue was resolved for the Email Notification system in the 2022 R1 release.

CLS Identification Merge Tags Now Supported in Email Forms in End-User Portal

The merge tags `[[DEFAULT_GLS_INSTANCE_ID]]` and `[[DEFAULT_GLS_URL]]`—which identify a Cloud license server (CLS)—are now supported in the email form used in the End-User Portal to send entitlement notifications.

Product Management Issues Resolved

The following issue involving product management has been resolved in the 2022 R1 release.

New Product Information No Longer Overwriting Existing Product Information

When a producer was creating a product while an existing product was currently open in the same browser session, the information saved for the new product could overwrite certain information in the existing product (as seen when the existing product was refreshed). This issue is now resolved. Information for an opened existing product is no longer overwritten with information from a product being created in the same browser session.

Known Issues

The following describes known issues in the current FlexNet Operations release.

FNO-67482: Users can erroneously access End-User Portal with entitlement ID

End-users are able to access the End-User Portal using an entitlement ID, even if the configuration option **Hide log in “With Entitlement ID” option** is selected (in the Producer Portal under **System > Configure > End-User Portal Setup > Login Page**). They can log in by selecting the **With Activation ID** option on the End-User Portal Login page and then entering an entitlement ID in the place of an activation ID.

Workaround: Execute the following SQL statement against the FlexNet Operations database to enable the required feature flag:

```
INSERT INTO OPS_FEATURE_FLAG(HIB_VERSION,NAME,SCOPE,ENABLED )
VALUES (1,'portalLogonPageAction.logonEntityTypeValidation','BASE',1);
```

FNO-67685: Upgrade button for Cloud Licensing Service database erroneously enabled

After initializing the database for the Cloud Licensing Service, the **Upgrade** button on the **Manage Schema** page is enabled even though it should be disabled.

FNO-67509: Upgrade button for FlexNet Usage Management database erroneously enabled

After initializing the database for FlexNet Usage Management, the **Upgrade** button on the **Manage Schema** page is enabled even though it should be disabled.

FNO-67474: “Accounts & Users” Menu in End-User Portal Accessible Via URL

A user can access the **List all administrators** link in the End-User Portal (in the **Accounts & Users** menu) by browsing to a relevant URL with the suffix `/flexnet/operationsportal/listAdmins`, even if their user role has no permissions to view the **Accounts & Users** menu.

SWM-10701: Search functionality in End-User Portal erroneously displays download link

In the End-User Portal, users who should be denied access to a file based on their geographical location are able to display the download link for a restricted file when searching for the file name (using the Search function with the **Files** option on the **Download Search** page). However, users are not able to download the restricted file.

FNO-66882: Data Import Template functionality not applying maintenance expiration date to ESD entitlements

When Data Import Template functionality is used to link a maintenance line item to an ESD entitlement line item, the maintenance expiration date is not automatically applied to the entitlement line.

Workaround: Reimport the entitlement. This additional step will update the expiration date for the entitled Product to reflect the maintenance expiration date.

SWM-6755: Attempts to export all entitlements from End-User Portal unsuccessful

An attempt by a producer user to export all entitlements from the End-User Portal can fail.

SWM-8779: Feature names with “SERVER” truncated in trusted storage

Feature names containing the string “SERVER” are truncated when the features are activated in trusted storage.

FNO-66018: Errors in UI updated for download package selection across multiple pages

In the previous release, the **Download Packages** window was updated to allow package selection across multiple pages. The following errors currently exist for the updated UI.

- Incorrect error message for EULA license on Review & Resolve page
- Search string not properly clearing
- No option to return to full (unfiltered) Download Package list when “failed validation” message displays
- Failed validation error displayed for search results
- Pagination control fields not showing correct information
- Inappropriate message displayed for already downloaded packages

Incorrect error message for EULA license on Review & Resolve page

When you attempt to download packages that fail validation, the following message is displayed: “Some of the selected packages failed validation. You need to review and resolve the validation errors.” Then, on the **Failed Packages** window that is displayed if you click the “review and resolve” link in the message, the error for an unaccepted EULA incorrectly shows the following:

“EULA has not been accepted. To accept EULA, click on the Download package ID.”

Instead of “click on the Download Package ID”, the message should instruct the user to “...click ‘I Agree’”.

Search string not properly clearing

After you filter the package list on the **Download Packages** window, the message “Results for Download package name: <name>” is appropriately displayed. However, if you then click the **Clear** link at the end of message, the search string used to filter the package list remains, the list remains filtered (even if you move to the next page), and the “Results for the Download package name...” message is still displayed. You must manually delete the search string and click **Search** to clear the filter.

No option to return to full (unfiltered) Download Package list when “failed validation” message displays

If the “failed validation” message is displayed after you attempt to download packages from a filtered list on the **Download Packages** window, no mechanism exists to clear the filter to display all packages. You must manually delete the search field contents and click **Search**.

Failed validation error displayed for search results

After searching for and attempting to download a package containing an unaccepted EULA, the expected message “Some of the selected packages failed validation...” is displayed on the **Download Packages** window. However, if you then search for a package that does not contain an EULA (but do not attempt to download the package), you received the “failed validation” message instead of the correct message describing the filter results: “Results for Download package name: <name>”.

Pagination control fields not showing correct information

The pagination control fields on the **Download Packages** window are not displaying the correct totals for a filtered list of packages.

Inappropriate message displayed for already downloaded packages

When you select an entitlement line item whose packages have already been downloaded, the **Download Packages** window is displayed with the incorrect message “Files sent for download. Please monitor the download manager pop up”. The message should be removed altogether or displayed only as package files are being sent to the Download Manager (before the actual **Download Manager** window is displayed).

SWM-7952: Not all applicable download links available on List Downloads page in End-User Portal

When end-users are logged in with an activation ID for an entitlement line item that is associated with multiple products, the **Downloads** page (accessed from **Downloads > List Downloads**) in the End-User Portal does not always show links to all applicable product downloads.

SWM-7786: SHA2 Checksum value of previous file shown

If a user has provided a file’s expected SHA2 checksum value for an upload and the file image is subsequently deleted, the **Upload File** page, when opened again, might show the SHA2 checksum value of the previously loaded file image.

SWM-6996: Updating device “Site name” property to blank not handled properly

If you change the **Site name** value for a device to a blank, the edited property reverts to its original value instead of maintaining the blank. This issue occurs when you make the change either through the Devices UI in the Producer Portal or End-User Portal or through the **updateDevice** method in the **ManageDeviceService** SOAP web service.

SWM-5894: Changes and limitations to the updateDevice SOAP method

The **updateDevice** method in the V3 and V4 **ManageDeviceService** SOAP web service has the following limitations and changes:

- Single channel partner recommended in channel partner list
- Support for only Replace operation in channel partner list

Single channel partner recommended in channel partner list

As in previous releases, the **updateDevice** method supports a list of channel partners. However, because a device is currently limited to one channel partner, the web service code, in turn, considers only one channel partner for the method. Therefore, you are strongly recommended to include only one partner in the channel partner list. If the list contains more than one channel partner, the behavior of **updateDevice** method is unpredictable.

Support for only Replace operation in channel partner list

Previously, the **opType** element, required for managing a channel partner list for the **updateDevice** method, had three possible values: **Add**, **Delete**, or **Replace**. This element now supports only the **Replace** value. If you specify **Add**, **Delete**, or **Replace** or omit the element altogether, the method will always use **Replace**. (If you attempt to specify **Add** or **Delete**, a message is returned in the response, explaining that **Replace** was used instead.)

FNO-65909: Download files not visible for self-registered and trial users

Download files might not be visible in the End-User Portal for self-registered users and those users registered through the “Try Before You Buy” registration.

FNO-63827: Downloads sometimes not available to end users when accounts are re-identified

When a new account is set up with an account ID previously used by a different account, and a user who belonged to the original account is assigned to the new account, that user is unable to see Software Delivery download links in the End-User Portal.

FNO-61266: Translation issues with localization

Per a previous enhancement in 2020 R3 to add more language support for End-User Portal localization, certain strings—such as alerts and validation messages—are not being translated properly when localization is in effect. These issues will be addressed in an upcoming release.

FNO-60845: Size limitation for license models

The JSON definition of a license model and the definition's internal representation are both stored in the FlexNet Operations database. Neither the JSON definition nor its internal representation can exceed 8000 bytes in length.

Special Notes

This section contains special information pertaining to FlexNet Operations.

Plug-in Upgrade Needed for High-Speed File Uploads

If you intend to use the high-speed upload option to upload files, upgrade the Aspera plug-in to Aspera Connect 3.10.0 or later.

Best Practice for Uploading New File Versions for Software Delivery

The following practice helps to prevent the delivery of “stale” file content to your customers.

When you upload a new version of a file (or package) whose previous version exists in the Software Delivery system, best practice is to give the new file version a unique name, different from the name of the existing file version. (For example, use a version number in the file name.) Try to avoid uploading a file using the same name as the existing file so that the existing file is overwritten.

If you must upload a new file using the same name as the existing file, delete the existing file and wait 10-15 minutes before uploading the new version. This process will reduce the probability of re-caching the old content.

Handling UI Conflicts When Using a Custom CSS for the End-User Portal

When you use your own CSS to customize the look of the End-User Portal, sometimes your custom CSS code conflicts with existing Revenera CSS code that is used to define certain buttons, pages, and other UI elements. When conflicts occur, handle each case individually, determining the basis of the conflict and adjusting the custom CSS as needed. If you require assistance, contact Revenera Technical Support (see [Revenera Resources](#)).

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