FlexNet Operations 2025 R1 On-Premises Release Notes

October 2025

Introduction

This Release Notes document summarizes the features, enhancements, and updates delivered with FlexNet Operations 2025 R1 On-Premises in October 2025. 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 2025 R1 release:

- Account and User Management Enhancements
- Entitlement Management Enhancements
- Electronic Software Delivery Features & Enhancements
- Embedded Devices Enhancement
- Export and Import Enhancements

- Device Management Enhancements

- SOAP and REST Web Services Enhancements

- Security Enhancements

- User Experience Enhancements

Account and User Management Enhancements

The following enhancement involving the management of accounts and users was added in the 2025 R1 release.

Removing Metered Features Used Count from CLS Instance

(Cases 02821334, 02830341, 02830896, 02863229; SWM-19670)

A new configuration option **Allow removing used count** (under **System** > **Configure** > **FlexNet Operations** > **Embedded Device Settings**) has been introduced which enables producers to allow the removal of used counts for a metered feature from a Cloud License Server (CLS) instance.

By default, the new configuration option is disabled, meaning that removing used counts for a metered feature is not allowed.

The new configuration gives producers flexibility during license migration, where they need to unmap the full count of activation IDs and re-map them to a new device.

Entitlement Management Enhancements

The following enhancements to entitlement management were added in the 2025 R1 release:

- Marking Custom License Attributes as Inactive

- New Merge Tag for Line Item Creation Date in Email Templates

- Merge Tags Added to Fulfillment On Hold Email Template to Improve Communication

- Grouping Product Information in Entitlements Email Template

- Instance ID Merge Tag Now Available in Entitlement Email Template

- "/features" Endpoint Returning Product Information

- Retaining Filtered Products When Configuring Line Items

- Ability to Limit Activation of FlexNet Embedded Nodelocked Licenses to Servers and/or Standalone Devices

- CONTAINER_ID Host ID Now Available for Docker Containers

- Advanced Search for Entitlements Includes Custom License Models

- Allow Renewal License to Start Upon Expiry of Parent License

- New "Features" Column on List Entitlements Page

- Inactive Line Items Can Now Be Changed to Draft to Allow Editing

- [Warning Message When Activating Licenses for Upgrade Line Items](#)
- [Confirmation Message Displayed After Merging Entitlements](#)
- [Error Message When Activating Obsolete/Inactive Line Items](#)
- [Visibility of Product Lines Created by Other Producer Users](#)
- [Changing the Prefix for Trial Activation IDs](#)
- [Overhaul of the "Show Line Items with Zero Copies by Default" Configuration Option](#)

Marking Custom License Attributes as Inactive

(Case 02760824, SWM-20139)

Custom license attributes—either license generator attributes or license model attributes—can now be marked as Inactive. Producers might want to make custom license attributes inactive if they should no longer be available for selection when creating an entitlement or fulfillment.

License generator attributes and license model attributes can have their status set on the **Create A License Generator Attribute** or **Create A License Model Attribute** page, respectively. Producers can set the status when creating or editing the custom license attribute.

The **Custom License Attributes** page (under **Administer** > **Custom License Attributes**) displays the attribute status in the new **Status** column. By default, the **Custom License Attributes** page shows only active attributes. To display all attributes, click the **Show All** link.

Note ▪ Attributes that are predefined in FlexNet Operations cannot be made inactive.

New Merge Tag for Line Item Creation Date in Email Templates

(Case 02866308, SWM-21436)

A new merge tag `[[LineItemCreationDate]]` has been added to the Entitlement, Entitlement Certificate, and License email templates. This tag enables producers to insert the line item's creation date into the relevant email.

Merge Tags Added to Fulfillment On Hold Email Template to Improve Communication

(SWM-25684)

When an on-hold fulfillment is created, an email can be triggered to notify the producer that the fulfillment is waiting for a license to be set. The Fulfillment On Hold template, on which such an email would be based, has now been enhanced to include additional merge tags to include relevant details. (Previously, the only merge tag available in this template was `[[FulfillmentID]]`.)

List of Merge Tags in Fulfillment On Hold Template

The following table lists all merge tags currently available in the Fulfillment On Hold template.

Merge Tag	Description	Example Preview Value
[AcctId]]	Account ID	ACME
[[AcctName]]	Account Name	MYORG
[ACTIVATION_DATE]]	Activation Date	Feb 28, 2007
[[ActivationID]]	Activation ID	9e8f-8b6f-0fbf-4488-950b-e4a5-1bfe-e73c
[[EntitlementID]]	Entitlement ID	bf1a-1191-4957-46aa-4f7f-fe
[[EXPIRATION_DATE]]	Order Line - Last day that the object is effective (exclusive)	2/1/2003
[[FulfillmentCount]]	Fulfillment Count	< FulfillmentCount >
[[FulfillmentID]]	Fulfillment ID	< FulfillmentID >
[[LICENSE_MODEL_ATTRIBUTES]]	License Model Attributes	< LICENSE_MODEL_ATTRIBUTES >
[[LICENSE_MODEL_NAME]]	License Model Name	< LICENSE_MODEL_NAME >
[[LicenseTechnology]]	License Technology	FlexNet Licensing
[[OverdraftCount]]	Overdraft Count	< OverdraftCount >
[[PartnerTierName]]	Partner Tier Name	End Customer
[[PartNumber]]	Part Number	PartNumberOne
[[PRODUCT_NAME]]	Product Name	Test Product
[[PRODUCT_VERSION]]	Product Version	7.6
[[ShipToAddress]]	Ship To Address	< ShipToAddress >
[[ShipToEmail]]	Ship To Email	< ShipToEmail >
[[START_DATE]]	Start Date	< START_DATE >

Sample Code for Fulfillment On Hold Template

This sample shows how the merge tags could be used in the Fulfillment On Hold template.

```
License text has not been set for the following generated fulfillment. The administrator was
notified. You will receive an email when the license is ready to download. <br/>
-------------------------------------------------------------------------------<br/>
Fulfillment On Hold<br/>
-------------------------------------------------------------------------------<br/>
FulfillmentID = <b>[[FulfillmentID]]</b><br />
Activation ID: [[ActivationID]]<br />
Entitlement ID: [[EntitlementID]]<br />
-------------------------------------------------------------------------------<br/>
Sold to AccountName:  [[AcctName]]<br />
Sold to AccountID:  [[AcctID]] <br/>
ChannelPartnerDetails: <br/>
[[PartnerTierName]]: <br />
-------------------------------------------------------------------------------<br/>
ProductName:  [[PRODUCT_NAME]] <br/>
ProductVersion: [[PRODUCT_VERSION]] <br/>
PartNumber: [[PartNumber]] <br/>
LicenseTechnology: [[LicenseTechnology]] <br/>
LicenseModel: [[LICENSE_MODEL_NAME]] <br/>
-------------------------------------------------------------------------------<br/>
LicenseModelAttributes: <br/>
[[LICENSE_MODEL_ATTRIBUTES]] <br/>
-------------------------------------------------------------------------------<br/>
StartDate: [[START_DATE]] <br/>
ExpirationDate: [[EXPIRATION_DATE]] <br/>
FulfillmentDate: [[ACTIVATION_DATE]] <br/>
-------------------------------------------------------------------------------<br/>
OverdraftCount :[[OverdraftCount]] <br/>
FulfillmentCount : [[FulfillmentCount]] <br/>
-------------------------------------------------------------------------------<br/>
```

Sample Email Based on the Fulfillment On Hold Template

The code above would result in an email similar to the following:

Figure 1: Example of an email with detailed fulfillment information, based on the Fulfillment On Hold template.

Grouping Product Information in Entitlements Email Template

(Cases 02749254, 02956269; SWM-21546)

This release introduces a new merge tag `[[FOR-EACH tag="EntitledProductLine"]]` for the Entitlement email template. This tag can be used to group all the products from a product line along with information about each product in the Entitlement email that customers will receive.

Use of the new merge tag is controlled by the configuration option **Allow grouping of product information based on product line in entitlement email template** (under **System** > **Configure** > **FlexNet Operations** > **General Options**). By default, this option is disabled.

This enhancement gives producers more flexibility when structuring their entitlement emails. Depending on whether the configuration option is selected or unselected, the Entitlement email can either:

● iterate the product line and print product information, or

● iterate the product and print product line information.

The following examples illustrate the different Entitlement emails that can be generated:

- Configuration Option Selected, Iterating Product Lines

- Configuration Option Unselected, Iterating Products

Configuration Option Selected, Iterating Product Lines

The following example code shows how to use the merge tag `[[FOR-EACH tag="EntitledProductLine"]]` to iterate through product lines and then iterate the products for each product line, along with sample output.

```
[[FOR-EACH TAG="Entitlement" child-only="true"]]
    [[FOR-EACH TAG="EntitlementLineItem"]]
        [[IF TAG="LicenseGenerator" VALUE="demo"]]
            [[FOR-EACH tag="EntitledProductLine"]]
                Product Line - [[ProductLine]]
                    [[FOR-EACH tag="EntitledProduct"]]
                        Product Name: [[Name]]
                        Product Description: [[Description]]
                    [[END FOR-EACH]]
            [[END FOR-EACH]]
                        Part Number: [[PartNumber]]
                        Permanent: [[Permanent]]
                        Start Date: [[StartDate]]
                        Expiry Date: [[ExpirationDate]]
                        ActivationID: [[ActivationID]]
        [[END IF]]
    [[END FOR-EACH]]
[[END FOR-EACH]]
```

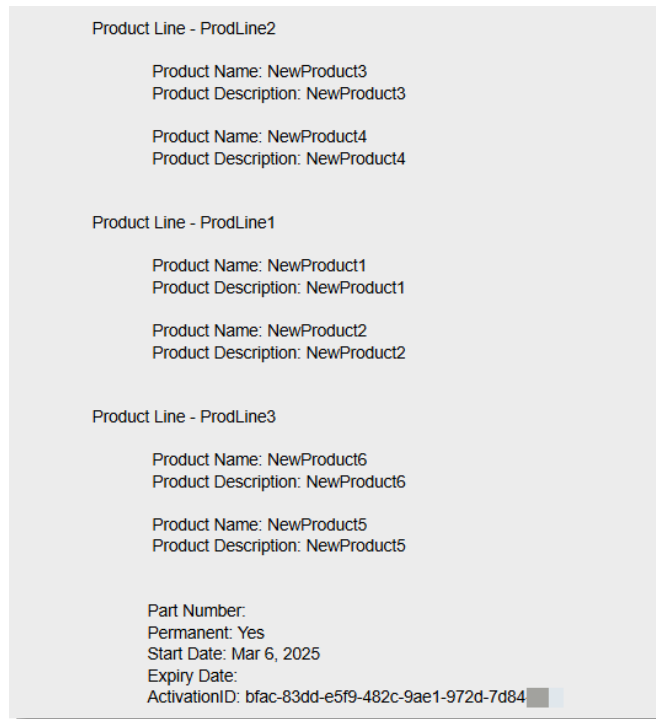A resulting Entitlement email might look like this:

```
Product Line - ProdLine2

    Product Name: NewProduct3
    Product Description: NewProduct3

    Product Name: NewProduct4
    Product Description: NewProduct4

Product Line - ProdLine1

    Product Name: NewProduct1
    Product Description: NewProduct1

    Product Name: NewProduct2
    Product Description: NewProduct2

Product Line - ProdLine3

    Product Name: NewProduct6
    Product Description: NewProduct6

    Product Name: NewProduct5
    Product Description: NewProduct5

    Part Number:
    Permanent: Yes
    Start Date: Mar 6, 2025
    Expiry Date:
    ActivationID: bfac-83dd-e5f9-482c-9ae1-972d-7d84
```

Figure 2: Entitlement email using the `[[FOR-EACH tag="EntitledProductLine"]]` merge tag

Configuration Option Unselected, Iterating Products

When the configuration option **Allow grouping of product information based on product line in entitlement email template** is unselected, the merge tag `[[FOR-EACH tag="EntitledProduct"]]` iterates through products and includes product line information. Below is some sample code and an example of a resulting Entitlement email.

```
[[FOR-EACH TAG="Entitlement" child-only="true"]]
    [[FOR-EACH TAG="EntitlementLineItem"]]
        [[IF TAG="LicenseGenerator" VALUE="demo"]]
            [[FOR-EACH tag="EntitledProduct"]]
                Product Name: [[Name]]
                Product Description: [[Description]]
                Product Line: [[ProductLine]]
            [[END FOR-EACH]]
                Part Number: [[PartNumber]]
                Permanent: [[Permanent]]
                Start Date: [[StartDate]]
                Expiry Date: [[ExpirationDate]]
                ActivationID: [[ActivationID]]
        [[END IF]]
    [[END FOR-EACH]]
[[END FOR-EACH]]
```

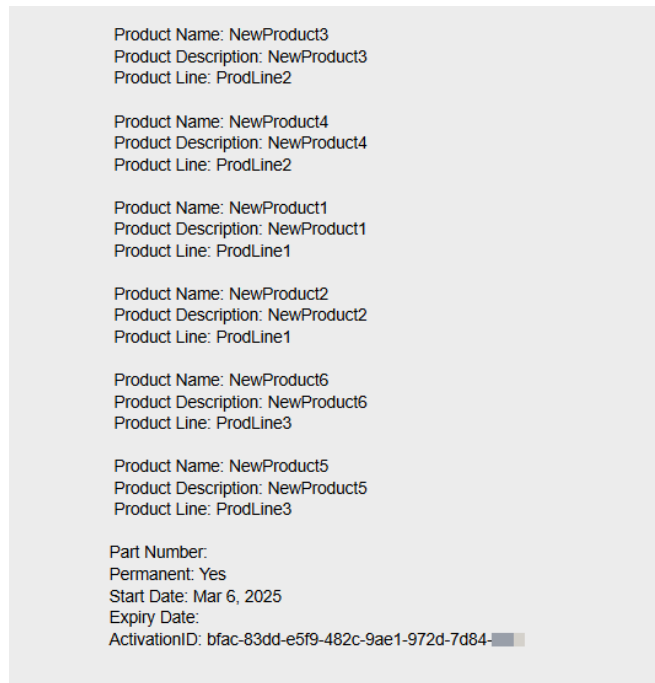A resulting Entitlement email might look like this:

```
                    Product Name: NewProduct3
                    Product Description: NewProduct3
                    Product Line: ProdLine2

                    Product Name: NewProduct4
                    Product Description: NewProduct4
                    Product Line: ProdLine2

                    Product Name: NewProduct1
                    Product Description: NewProduct1
                    Product Line: ProdLine1

                    Product Name: NewProduct2
                    Product Description: NewProduct2
                    Product Line: ProdLine1

                    Product Name: NewProduct6
                    Product Description: NewProduct6
                    Product Line: ProdLine3

                    Product Name: NewProduct5
                    Product Description: NewProduct5
                    Product Line: ProdLine3

                    Part Number:
                    Permanent: Yes
                    Start Date: Mar 6, 2025
                    Expiry Date:
                    ActivationID: bfac-83dd-e5f9-482c-9ae1-972d-7d84-███
```

Figure 3: Entitlement email using the `[[FOR-EACH tag="EntitledProduct"]]` merge tag.

Instance ID Merge Tag Now Available in Entitlement Email Template

(Case 02875263, SWM-21918)

Previously, the merge tag `[[DEFAULT_GLS_INSTANCE_ID]]` (available in the Entitlement email template) could only be included above the email text, but not in the email within `LicenseModel` or `EntitlementLineItem` tags.

In the 2025.01 release, the merge tag `[[DEFAULT_GLS_INSTANCE_ID]]` can be nested inside the `LicenseModel` or `EntitlementLineItem` tag, and producers can now insert the Cloud Licensing Service (CLS) instance ID into the table in an Entitlement email. (This allows an Entitlement email, for example, to contain a table with rows for each line item, and to specify the CLS ID in the rows related to the CLS.)

The following sample shows how the merge tag `[[DEFAULT_GLS_INSTANCE_ID]]` is nested inside the `EntitlementLineItem` tag:

```
[[FOR-EACH TAG="EntitlementLineItem"]]
    [[DEFAULT_GLS_INSTANCE_ID]]
[[END FOR-EACH]]
```

"/features" Endpoint Returning Product Information

(SWM-19716)

Previously, any licensing information that is passed between FlexNet Operations and a FlexNet Embedded license server was feature centric. This could make it difficult for producers and their customers to see which products are currently licensed, and which licenses are available on the license server.

To address this challenge, the 2025 R1 release includes an enhancement where a number of endpoints for FlexNet Embedded license servers (local license servers and Cloud License Server instances) now return additional product-related information.

Returned Product Information

The following product information can be returned:

- Product Name
- Product Version
- Activation ID
- Entitlement ID

List of Endpoints

The following endpoints can return product information:

- `/api/1.0/instances/{instanceid}/features`
- `/api/1.0/instances/{instanceid}/features/{id}`
- `/api/1.0/instances/{instanceid}/features/{id}/clients`
- `/api/1.0/instances/{instanceid}/features.stream`
- `/api/1.0/instances/{instanceid}/clients/`
- `/api/1.0/instances/{instanceid}/features/summaries`
- `/api/1.0/instances/{instanceid}/partitions` (under feature slices)
- `/api/1.0/instances/{instanceid}/partitions/{id}` (under feature slices)
- `/api/1.0/instances/{instanceid}/clients/{id}/features`
- `/api/1.0/instances/{instanceid}/clients/id`

Query Parameter to Return Product Information

To return product information in the /**features** endpoint, pass the query parameter `includeEntitlementInfo`=**true**.

Example: `https://hostName/GlobalLicensingService/api/1.0/instances/DeviceId/features?`**`includeEntitlementInfo`**`=`**`true`**

Retaining Filtered Products When Configuring Line Items

(Case 02166366, SWM-4796)

When creating or updating entitlements, while configuring line items, users can now select products across multiple searches. Products selected from each search will be retained and all products selected from each search can be linked to the line item that is being configured.

This new functionality is available as part of the standard search; it is not available for the advanced search.

Ability to Limit Activation of FlexNet Embedded Nodelocked Licenses to Servers and/or Standalone Devices

(Cases 02793847, 02992811; SWM-19823, SWM-24434)

Producers can now specify whether a nodelocked FlexNet Embedded license can only be activated on license servers, standalone devices, or both. This enhancement increases a producer's control over license activation, and prevents license leakage caused by uncounted licenses being activated on a license server.

Controlling the activation of FlexNet Embedded licenses is done during license model creation (**Administer** > **License Models** > **Create new license model**). When selecting the license model type **Embedded**, producers can select where the license model can be activated using the new option, **Hosted On**. The following options are available:

- **License Servers**—Licenses can only be activated on license servers. Attempts to activate a license on a standalone device will fail.

- **Standalone Devices**—Licenses can only be activated on standalone devices. Attempts to activate a license on a license server will fail.

- **Both**—Licenses can be activated on license servers and on standalone devices. This is the default option.

Figure 4: The **Hosted On** property is set during license model creation.

The above controls apply to online and offline activations and are enforced regardless of activation type (Producer Portal, Web services, capability requests).

Behavior when changing a license model for a product

To explain the behavior, consider that you have the following license models defined:

● License model 1: `HostedOnServerOnly`, **Hosted On** property set to **License Servers**

● License model 2: `HostedOnStandalone`, **Hosted On** property set to **Standalone**

When the license model of an existing product is changed—for example, the license model is changed from `HostedOnServerOnly` to `HostedOnStandalone`—FlexNet Operations will correctly validate license applicability based on device type.

While the entitlement line items are not removed automatically, once the license model is changed, licenses with `HostedOnStandalone` are no longer shown for Cloud License Server (CLS) instances or local license servers. Users must manually remove entitlements if they are no longer valid for the device.

This behavior ensures that licenses meant only for standalone devices won't mistakenly appear for license servers, reducing confusion and helping enforce correct usage.

CONTAINER_ID Host ID Now Available for Docker Containers

(Case 02758504, SWM-19930)

The list of hostid types available for Flexnet Publisher certificate-based licensing now also includes the host ID type CONTAINER_ID. The CONTAINER_ID is used to node-locking a license server and feature licenses to a docker container host ID.
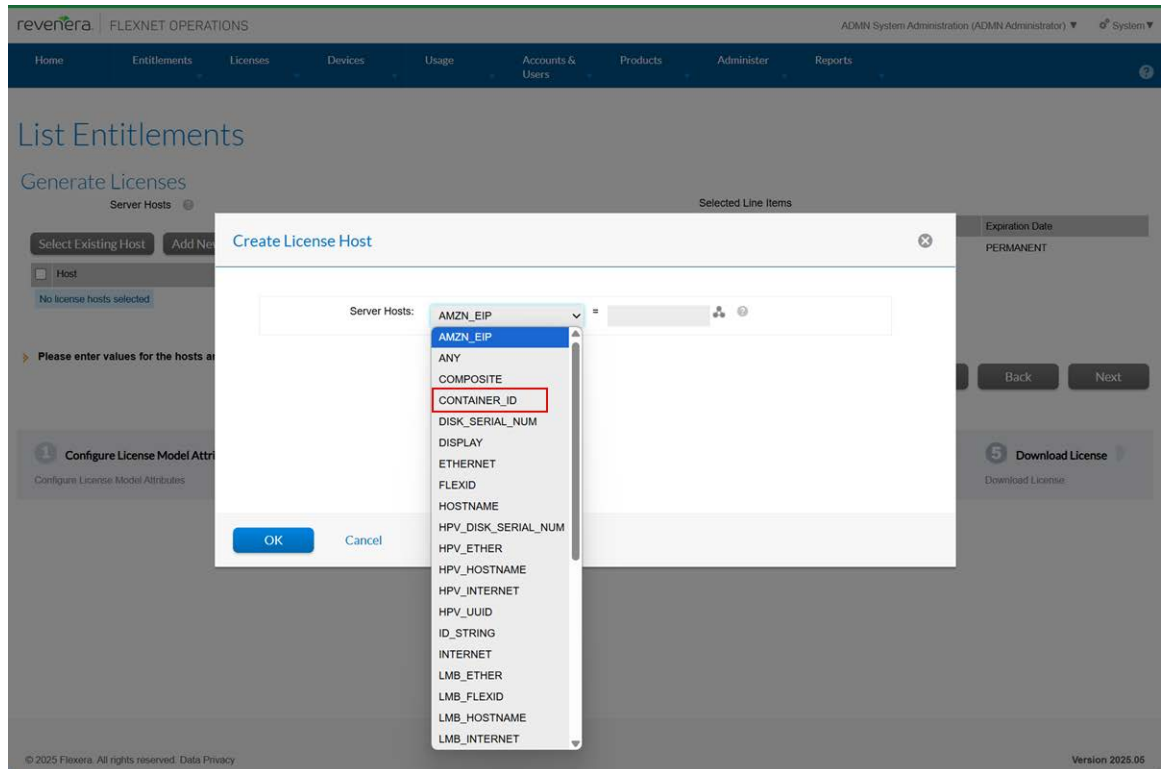
Figure 5: The CONTAINER_ID can be selected in the **Create License Host** window.

Producers wanting to use CONTAINER_ID as a host ID must build a new version of the Vendor Certificate Generator (VCG) executable and need to change the generator configuration to version 16.2.3.0. Instructions on how to build a new version can be found in the Flexnet Operations User Guide, topic Creating a FlexNet Publisher Licensing Toolkit License Generator (VCG) Configuration.

Advanced Search for Entitlements Includes Custom License Models

(Case 02987224, SWM-25152)

On the **List Entitlements** page, the **Advanced Search** now allows users to filter entitlements by custom license models. This enhancement is available in both the Producer Portal and the End-User Portal.
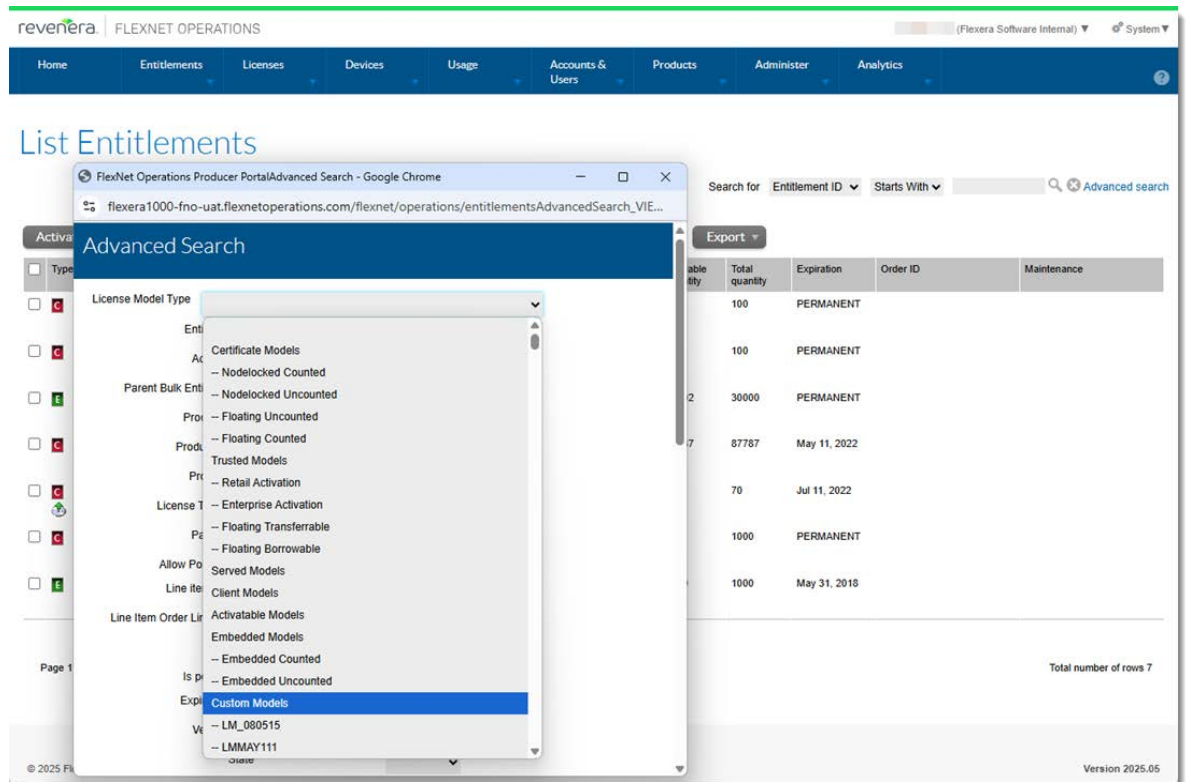
Figure 6: The Advanced Search window now includes custom license models when searching for entitlements.

Allow Renewal License to Start Upon Expiry of Parent License

(Case 02679546; SWM-21239)

Currently, mapping a renewal license to a device can result in the parent license being unmapped, temporarily leaving the device without a license.

This issue occurs when a renewal relation is set up between the parent and the child line items, and the renewed (child) line item has a future start date. When the renewed line is activated, it replaces the parent line mapped to the device. It is possible to create a renewal line item without linking to the parent line item; in this case there is no gap in license coverage.

To address this issue, the 2025.04 release introduces a configuration which allows producers to change the behavior when mapping renewal licenses to devices. The new configuration called **Retain mapping of the parent activation to the devices when mapping a child activation** is available under **System** > **Configure** > **Embedded Devices** > **Host Options**. By default, the option is unselected, maintaining the behavior of previous releases.

When this option is selected, the parent license remains mapped to the device even when a child license (for a renewal, upgrade or upsell) is applied. This means that the parent license continues to be available after the child line item has been mapped.

This enhancement allows producers to issue renewal licenses well before the parent license expires, and it enables customers to apply the renewal license early. This ensures uninterrupted license coverage throughout the device's activation lifecycle, preventing any interruptions.

There has been no change to the user experience. Activations are mapped as before:

- Producer Portal—On the **View Device** or **View Server** page (under **Devices** > **Devices**, click a hyperlinked device name), click **Licenses** > **Map Entitlements** or **Map by Activation IDs**.

- SOAP web services—Using the the **incrementAddonLineItems** and **linkAddonLineItems** operations of the `ManageDeviceService` web service.

Note ▪ Producers are responsible for explicitly unmapping unused/expired activations.

New "Features" Column on List Entitlements Page

(Case 02982636, SWM-25094)

In the Producer Portal and the End-User Portal, the **List Entitlements** page can display an additional **Features** column, which would show the name and the version of the feature that is associated with a product. If a product includes more than one feature, a **more...** link is displayed. Pointing to the link lists all features that are linked to the product.

This enhancement makes it easier for producers and their customers who might be more familiar with feature names than product names to identify and manage the features associated with a product.

Displaying the Features Column

This enhancement is disabled by default. Producers who would like the **Features** column to be displayed should send a request to Revenera support. Revenera strongly recommends that producers ensure that displaying the **Features** column does not interfere with the way they currently use the **List Entitlements** page.

Figure 7: The **List Entitlements** page with the **Features** column displaying feature information in the Producer Portal

Figure 8: The **List Entitlements** page with the **Features** column displaying feature information in the End-User Portal

Inactive Line Items Can Now Be Changed to Draft to Allow Editing

(Case 02552542, SWM-25355)

The 2025.03 release now allows producers to change the state of line items from Inactive to Draft. Previously, to edit an inactive line item, its status had to be changed to Deployed. This enhancement means that producers can edit or re-use previously inactive line items, without the need to deploy these line items first.

Example: A producer wants to update the part number for a certain product. The products are already associated with entitlements, some of which are inactive. The producer can now change a line item's status from Inactive to Draft, which then makes the line item editable. The producer can update the part number and then change the status back to Inactive.

The following screenshots show the **Line Items** section, where a line item has its status changed to Inactive, and the **Customers to Licenses** page with the subsequent success message.
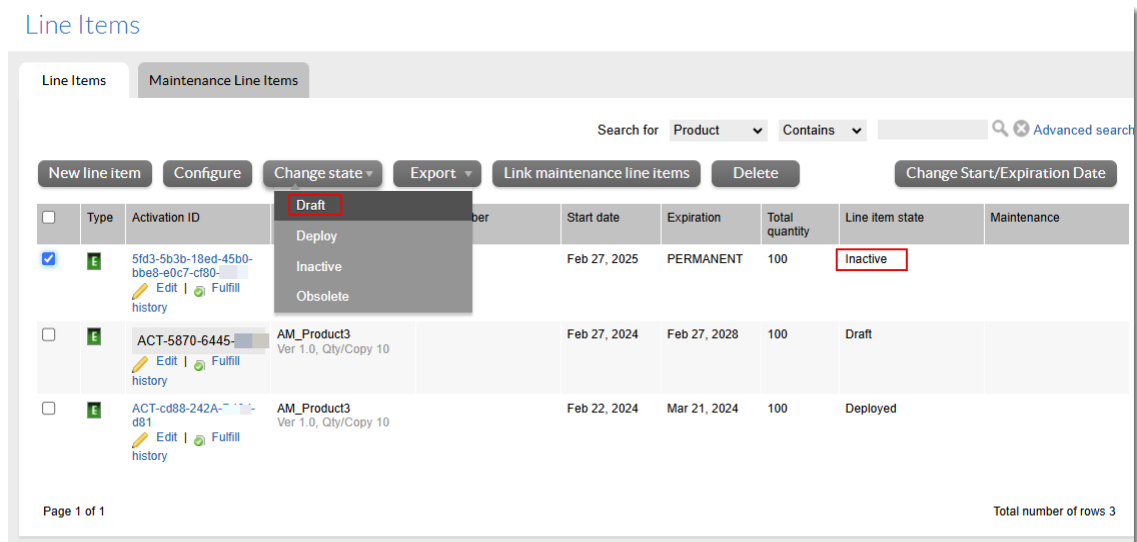
Figure 9: Changing the line item status from Inactive to Draft in the **Line Items** section of the **Entitle Customers to Licenses** page
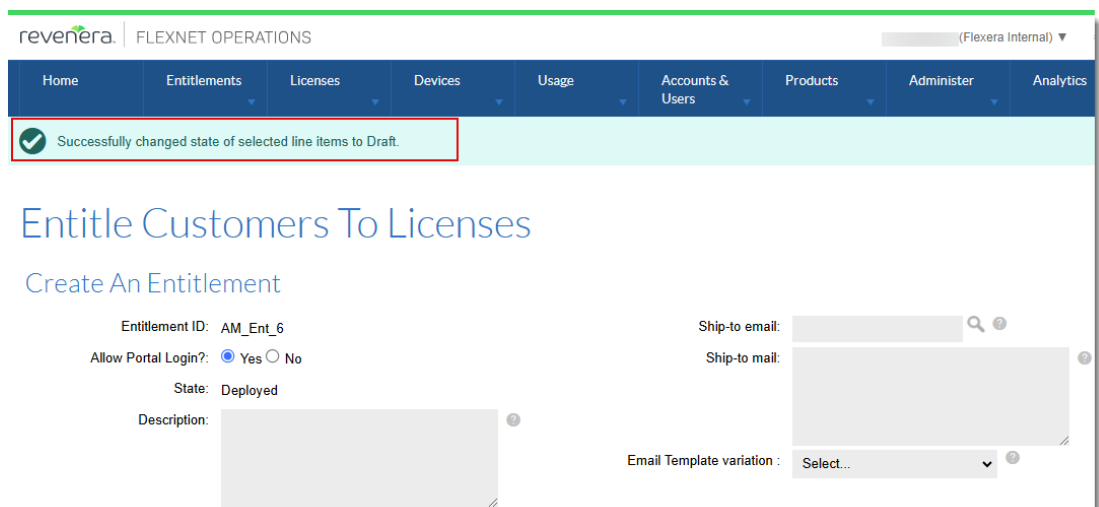

Figure 10: The **Entitle Customers to Licenses** page shows a confirmation message after changing the line item's status.

Warning Message When Activating Licenses for Upgrade Line Items

(Case 02733304, SWM-19396)

In FlexNet Operations, when a base line item is associated with an upgrade line item, and the upgrade line item is activated, the quantity is consumed on the parent line. Returning the upgrade line item will not free up the count on the base line item. This is to prevent license leakage.

However, customers who are not aware of this behavior might be frustrated. Imagine the following scenario: a customer upgrades to a new product version and activates the upgraded version. For some reason, the upgraded version of the product does not live up to their expectations. When the customer

tries to return the upgraded line item, in the hope of being able to use the previous product, they find that this is no longer possible. They now have no choice but continue using the upgrade that they do not like.

To help users make conscious decisions when upgrading, FlexNet Operations now includes a new configuration option **Display warning message when activating upgrade line item linked to parent line item** (under **System** > **Configure** > **FlexNet Operations** > **General Options**). The option controls the behavior of the Producer Portal and the End-User Portal:

- When the configuration option is *selected*, and a user tries to activate an upgrade line item that is linked to the parent line item (by navigating to the **List Entitlements** page, selecting an entitlement and clicking **Activate**), the following warning is displayed:

  "If you activate the selected upgrade line item, you will no longer be able to activate previous versions of that line item. Are you sure you want to activate the upgrade line item?"

  This message makes it clear to the user that they cannot revert back to the previous version after the upgrade.

- When the configuration option is *unselected*, and a user tries to activate an upgrade line item that is linked to the parent line item, no warning message is be displayed. The **Generate Licenses** page opens for activating the license. (It is the Current Behaviour).
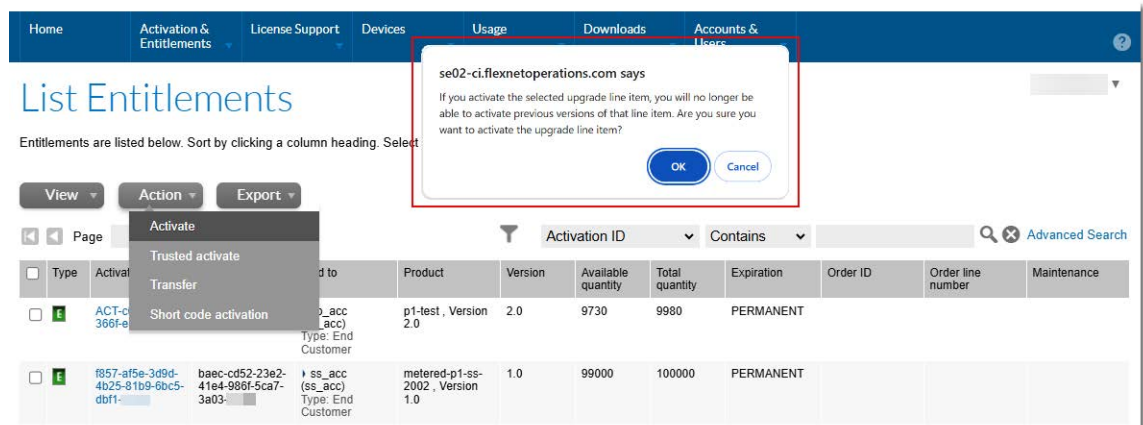

Figure 11: Example of the warning message in the End-User Portal

Confirmation Message Displayed After Merging Entitlements

(Case 02974495, SWM-24762)

Previously, when a user initiated a merge operation by selecting the assets to be merged and clicking **Complete** on the **List Entitlements By Order | Merge Entitlements** page, the Producer Portal redirected the user to the **List Entitlements By Order** page which then listed the merged assets. This behavior was confusing, because the user had no immediate way of knowing whether the merge was successful.

To improve the user experience, the **List Entitlements By Order | Merge Entitlements** page now displays a confirmation message which indicates whether the merge was successful. In the event of an error, a meaningful error message is displayed.

The following screenshot shows the **List Entitlements By Order | Merge Entitlements** page with a confirmation message for a successful merge operation:

Figure 12: The confirmation message after a merge on the **List Entitlements By Order | Merge Entitlements** page

After the merge, users can navigate away from the page using the options in the top navigation bar.

This enhancement applies to operations for merging entitlements and fulfillments and for merging users.

Error Message When Activating Obsolete/Inactive Line Items

(Case 02954549, SWM-23892)

Previously, attempting to activate an obsolete or inactive line item on a device using a FlexNet Embedded toolkit failed as expected, but no error message was displayed. This lack of error messages while activating obsolete or inactive line items made it difficult for producers to notice and resolve errors in a timely manner.

From the 2025.02 release onwards, attempting to activate an obsolete or inactive line item will result in an error being displayed. For example, the response might include a status like this:

```
Status=("Activation ID not permitted": 5f4d-123e-a456-7894-b123-66f4-88h7-56f3)
```

This screenshot shows a sample response:

```
C:\Work\SWM\flexnet_client-x64_windows-2024.11.0\flexnet_client-x64_windows-2024.11.0\bin\tools>caprequestutil.bat -id silo2cs.bin -host _____
> -idtype _____  -rightsId 871a-fe91-ece8-47f2-bee1-7f7f-6d1c- ___ 5  https://flexera1000-ci.compliance.flexnetoperations.com/deviceservices -full -
  "x-publisherid" 1000

Response has valid back-office signature
MessageType="Capability response"
FneVersion=(Major=2024 Minor=6 Maint=0)
ProtocolVersion=6
ServerIDType=String
ServerID=BACK_OFFICE
SourceIds=BACK_OFFICE
Lifetime=0
ResponseTime="Dec 31, 2024 1:00:30 PM"
LastResponseTimeMilliseconds=0
RequestHostID=_____
RequestHostIDType=_____
MachineType=Unknown
Status=("Activation ID not permitted": 871a-fe91-ece8-47f2-bee1-7f7f-6d1c- ___ )
Signature=(
    SignatureType=RSA
    SignatureSource=Back-office
    SignatureStrength=0
    SignatureValue=_____
```

This enhancement enables producers to identify the cause of the error and take corrective action, if required.

Visibility of Product Lines Created by Other Producer Users

(Cases 02774078, 02848224; SWM-20402)

In previous FlexNet Operations releases, a producer user could only access the product lines they created. However, this could create issues when system administrators left and new staff had to take over their responsibility for product lines. Product lines that were created by the previous administrator were not visible to the new administrators, making product line management very difficult.

The 2025.03 therefore introduces a new configuration option **Enable visibility of all product lines for system administrators** (under **System** > **Configure** > **FlexNet Operations** > **General Options**). If enabled, the **Product Lines** section on the **Create a User** and **Create an Account** pages in the Producer Portal displays all product lines, including those created by other producer users. The **Link product lines** button in that section, which was previously limited to product lines created by the logged-in user, now allows linking of product lines created by other producer users.

By default, the **Enable visibility of all product lines for system administrators** option is disabled.

Note that the configuration option **Enable Product Lines for Products, Users, and Accounts** (also under **System** > **Configure** > **FlexNet Operations** > **General Options**) must be selected for the new configuration option **Enable visibility of all product lines for system administrators** to be effective.

Figure 13: When **Enable Product Lines for Products, Users, and Accounts** is selected, the **Product Lines** section on the **Create a User** page (pictured) and the **Create an Account** page displays all product lines, including those created by other producer users.

Figure 14: Clicking **Link product lines** in the **Product Lines** section on the **Create a User** page and the **Create an Account** page displays the **Select Product Lines for the User** window, where producer users can link or remove a product line, including those product lines created by other producer users.

Changing the Prefix for Trial Activation IDs

(Case 02461881, SWM-21200)

The 2025.03 release allows producers to customize the short string that is used as a prefix for trial activation IDs.

Previously, customization was not allowed. When a trial entitlement was created, its activation ID had the fixed prefix "Act", which was a limitation when the entitlement needed to match or validate old or existing licenses and made trial conversions or renewals difficult. A configurable prefix gives producers the flexibility to match the activation IDs in these various phases.

Producers wanting to change the prefix can do so in the configuration option **Custom pre-fix string from Trial License Activation ID** (under **System** > **Configure** > **FlexNet Operations** > **General Options**).

Overhaul of the "Show Line Items with Zero Copies by Default" Configuration Option

(Case 02876825, SWM-24336)

In previous releases, the configuration option **Show Line Items with Zero Copies by Default** (under **System** > **Configure** > **FlexNet Operations** > **General Options**) did not work as expected. It has now undergone an overhaul to fix functional issues and broaden its scope:

- In previous releases, even if the configuration option was disabled, the **List Entitlements** in the End-User Portal page erroneously displayed line items with zero copies remaining. This has now been resolved.

- The previous description of the configuration was misleading, because it referred to the page names "Activatable Items" and "Entitlements" that do not exist in the End-User Portal. The wording has now been corrected to refer to the "List Entitlements" page.

- The scope of the configuration option has been broadened. Whereas previously it controlled only which entitlements would be displayed on the **List Entitlements** page in the End-User Portal, it now also controls which entitlements are displayed on the **List Entitlements** page of the Producer Portal. To reflect this, the description has been changed as follows: "Select to show line items with zero copies by default in the **List Entitlements** page in the Producer Portal and End-User Portal."

  This enhancement gives producers and their end-users greater control over the content displayed on the **List Entitlements** pages.

How the option affects which line items are displayed in 2025.02

When **Show Line Items with Zero Copies by Default** is selected, the Producer Portal and the End-User Portal show line items with zero copies remaining on their **List Entitlements** pages. The **List Entitlements** page is available in the Producer Portal under **Entitlements** > **List Entitlements** and in the End-User Portal under **Activation & Entitlements** > **List Entitlements**.

When **Show Line Items with Zero Copies by Default** is unselected (the default), line items with zero copies are hidden on the **List Entitlements** pages.

Electronic Software Delivery Features & Enhancements

The following Electronic Software Delivery (ESD) features were added in the 2025 R1 release.

Ability to Restrict Visibility of Expired Software or Maintenance Entitlements in End-User Portal

(Case 02801561, SWM-19597)

This release offers producers who use FlexNet Operations with Electronic Software Delivery more control about the visibility of expired software entitlements and maintenance.

Previously, software downloads were available for life to entitled end-users. End-users could download software from expired entitlements, but could not activate that software if it was controlled by license activation because the licenses would have expired.

The 2025 R1 release now enables producers to offer only software mapped to active entitlements for download. This means that in the End-User Portal, end-users can no longer see or download software or maintenance that has expired.

Producers can control visibility of expired software and maintenance using the new configuration option **Hide downloads for expired entitlements** (under **System** > **Configure** > **End-User Portal Setup** > **Downloads Page**). By default, this option is unselected, meaning that software and maintenance from expired downloads remains visible to end-users.

Embedded Devices Enhancement

The following enhancement has been made for the management of Embedded Devices in the 2025 R1 release.

- New Configuration for Future End-User Portal Enhancement
- Supporting Multiple Signature Strengths for Standalone Devices

New Configuration for Future End-User Portal Enhancement

(SWM-21147)

A new configuration option **Show three level product hierarchy** (under **System** > **Configure** > **End-User Portal Setup** > **General Options**) has been introduced in anticipation of new functionality that will be made available in a future release. At present, the configuration option has no underlying functionality.

Supporting Multiple Signature Strengths for Standalone Devices

(FNE-19494)

With technology and computational power evolving rapidly, algorithms and key sizes that are considered secure today may be considered vulnerable in the future. Therefore, software producers may decide that they would like to migrate to a different signature strength.

To enable migration to a different signature strength, the Publisher Identity utility for FlexNet Embedded has been enhanced to allow producers to add one additional signature strength to the already existing signature strength. Existing clients in the field will continue to support the existing identity using the original signature strength, while new clients that have been built using the updated identity use the additional, higher signature strength to validate communication with the back office.

Note ▪ *Adding a signature strength is currently only supported for standalone devices.*

Managing Signature Strengths

Publishers can add or delete a signature strength using the updated Publisher Identity utility either in UI or console mode.

The Publisher Identity utility UI has been changed as follows:

- **To create a new identity**, publishers no longer need to specify different paths for the identity files (back office, server, and client identity). Instead, when they click **Save** or **Save and Exit** in the updated UI, they are prompted to specify a folder. Upon confirming the folder location, the Publisher Identity utility creates a subfolder with a file name in the format `YYYY-MM-DDThh-mm-ss-sss` (for example, `2024-06-12T09-30-24-064`), which will hold the new set of identity files.

- **To add or delete a signature strength**, publishers specify the existing back-office identity that they want to modify in the **Identity File** section. Clicking **Enable Multiple Signature Strengths** displays controls for adding, deleting or validating a signature strength. Again, clicking **Save** or **Save and Exit** prompts the publisher to specify a folder. This folder will hold a subfolder with a file name in the format `YYYY-MM-DDThh-mm-ss-sss` which will contain the updated set of identity files.

The following screenshot shows the updated Publisher Identity utility UI:

The following new commands have been introduced to add or delete a signature strength in console mode:

```
pubidutil -silent [-backOffice backofficeidfile.bin] [-addSignatureStrength sig-type
    sig-strength]
```

```
pubidutil -silent [-backOffice backofficeidfile.bin] [-delSignatureStrength sig-type
    sig-strength]
```

For detailed information about adding or deleting a signature strength using the UI or the command-line, refer to the FlexNet Embedded documentation.

Client Behavior for Validating Messages

When an additional signature strength is added to an identity, existing clients will continue to validate any downstream messages, such as capability responses, using the original signature strength. Any new clients that are built using the updated identity will validate downstream messages using the added signature strength.

The following diagrams visualize the behavior.

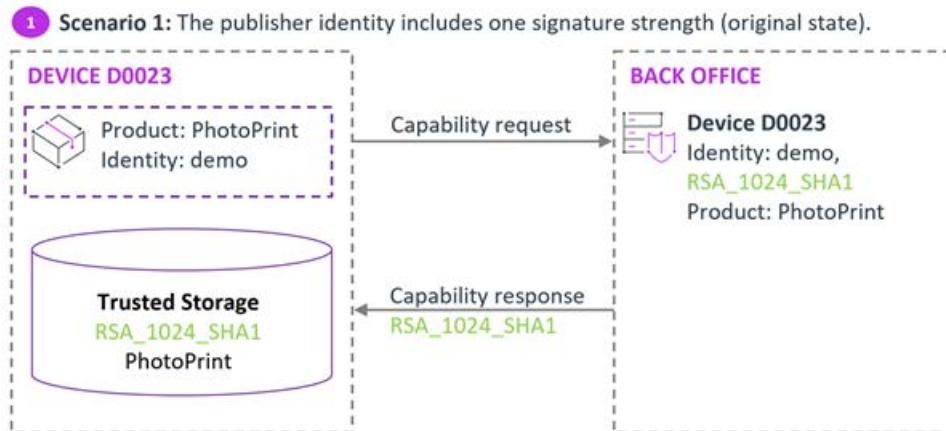**Figure 15:** Initial scenario where the identity used for the client software and in the back office has only one signature strength.
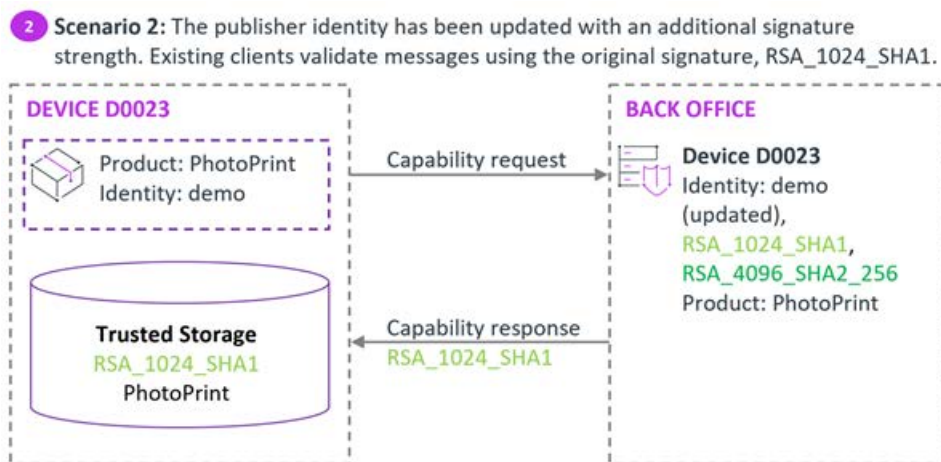

Figure 16: In scenario 2, the publisher identity in the back office has an additional signature strength. Existing devices running the client software that was built using the original, unchanged identity use the original signature strength to validate downstream messages.

3 **Scenario 3:** The publisher identity contains an additional signature strength. The back office has been updated with this identity. A new product, CADPrint, has been built using the updated identity. It is installed on a new device, DEVICE F1244.

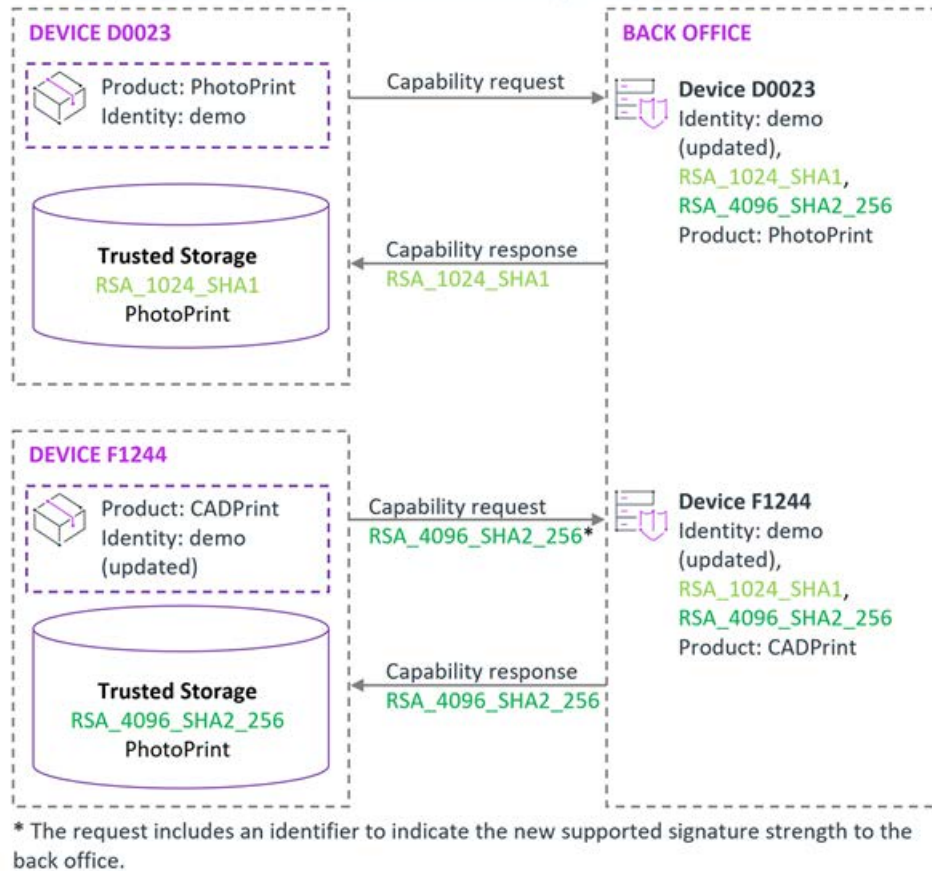* The request includes an identifier to indicate the new supported signature strength to the back office.

Figure 17: In scenario 3, the publisher has launched a new product which was built using the identity that includes the additional signature strength. This client will always use the added, higher signature strength to validate downstream messages.

Figure 18: In scenario 4, the publisher has launched another new product which has also been built using the updated identity. It is installed on the same device as the PhotoPrint product. However, both clients use their own trusted storage. PhotoPrint will use the original signature strength, while SignPrint will use the higher signature strength to validate downstream messages.

Export and Import Enhancements

The following enhancement involving the Data Export and Import functionality was added in the 2025 R1 release.

Exporting Users with Roles and Permission Information

(Case 01282499, SWM-21007)

Previously, FlexNet Operations did not provide functionality for creating a report of the permissions assigned to each role. While the Data Import template could extract the roles of users, these reports did not include details of the permissions included in each role. The Producer Portal was the only way for producers to identify the permissions selected for a role.

In the 2025 R1 release, producers can now use the Data Import template to create a report detailing the permissions that are applied for each role. When exporting users (**Accounts & Users** > **All Users** > **Export** > **Data Import Template**), the exported CSV file, `UserExport.xlsx`, includes a new **Permission** column.

📋

Note ▪ This enhancement does not affect the User Data Extract job.

Device Management Enhancements

The following enhancements to device management were added in the 2025 R1 release.

- Bulk Updating Account Information for Devices

- Device History Now Listing Users Who Triggered Events

- Reassigning Returned Standalone Devices

Bulk Updating Account Information for Devices

(Case 02880444, SWM-25969)

Producers can now use the newly introduced Devices Template to assign an account to multiple devices at a time. This offers an easier and faster UI-based way to perform bulk transfers of entitlements between accounts, including stock returns and the transfer of faulty appliance entitlements.

To download the Devices Template (XLSX format), click **Administer** > **Import Data Objects** and select the **Data Import Templates** tab.
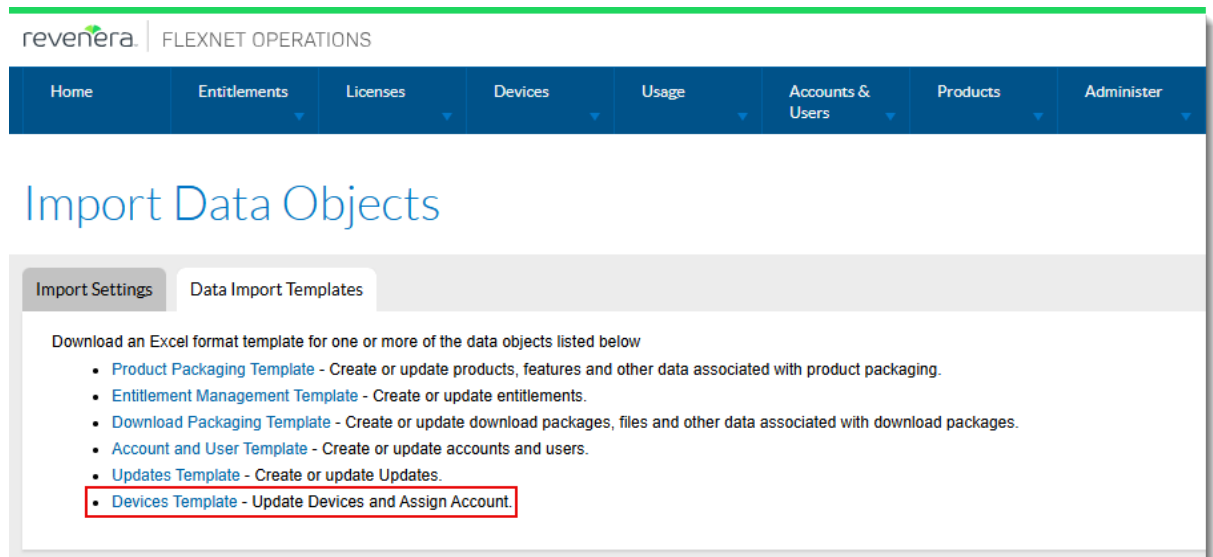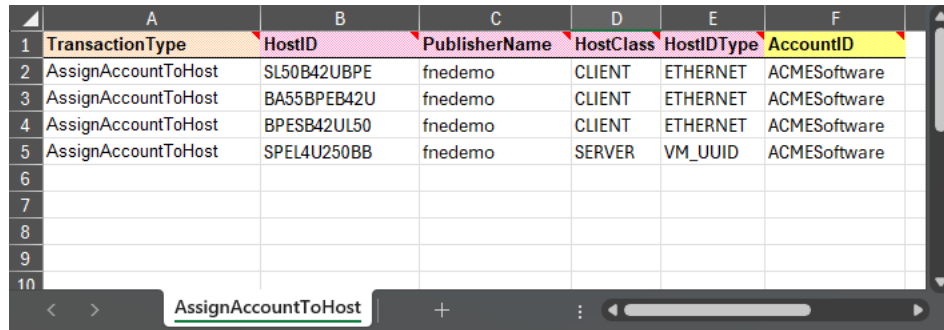

Figure 19: The Devices Template can be downloaded from the **Import Data Objects** page.

In the template, the following properties must be provided to update account information for devices: host id, publisher name, host class, host id type and account ID.

This screenshot shows an example of a populated template:

	A	B	C	D	E	F
1	TransactionType	HostID	PublisherName	HostClass	HostIDType	AccountID
2	AssignAccountToHost	SL50B42UBPE	fnedemo	CLIENT	ETHERNET	ACMESoftware
3	AssignAccountToHost	BA55BPEB42U	fnedemo	CLIENT	ETHERNET	ACMESoftware
4	AssignAccountToHost	BPESB42UL50	fnedemo	CLIENT	ETHERNET	ACMESoftware
5	AssignAccountToHost	SPEL4U250BB	fnedemo	SERVER	VM_UUID	ACMESoftware
6						
7						
8						
9						
10						

Figure 20: Example of a populated XLSX template.

Once the Devices Template has been populated, it must be saved as a Unicode .txt file before it can be imported into FlexNet Operations, using the **Import Settings** tab on the **Import Data Objects** page.

Device History Now Listing Users Who Triggered Events

(Cases 02685529, 02869243; SWM-13895)

The **Device History** page (available by clicking **View** > **View Device History** on a **Device** or **View Server** page) now includes a **User Details** column, which lists the name of the user who triggered an event (for example, creating a device or mapping entitlements).

This improvement enhances transparency by identifying who performed particular actions on a device, making it easier to troubleshoot issues.

Figure 21: Example of the **Device History** page with the **User Details** column.

Reassigning Returned Standalone Devices

(Case 01948947, SWM-20276)

This release includes an enhancement for returned standalone devices.

Returning a device is intended for devices that no longer receive capability responses or license files, or servers that no longer serve devices or communicate with the FlexNet Operations back office. Previously, returning a device was an irreversible action. When a device was returned, it was permanently disassociated from its account.

The 2025.01 release introduces the ability to reassign returned standalone devices to an account and reactivate such devices. This enables producers to take returned standalone devices back into service.

Reassigning a Device Using the Producer Portal

Producers can reassign a returned device to an account using the menu item **Reassign Account** from the **Edit** menu on the **Device** page. (To access the **Device** page for a returned device, click **Devices** > **Devices** > click a hyperlinked device name.)

*Note • Returned devices have a status of Returned and are by default not listed on the **Devices** page (under **Devices** > **Devices**) even when searched. To display returned devices on the **Devices** page, select the option **Inactive** in the filter above the devices list.*

The following screenshot shows the new menu item **Reassign Account** on the **Device** page:
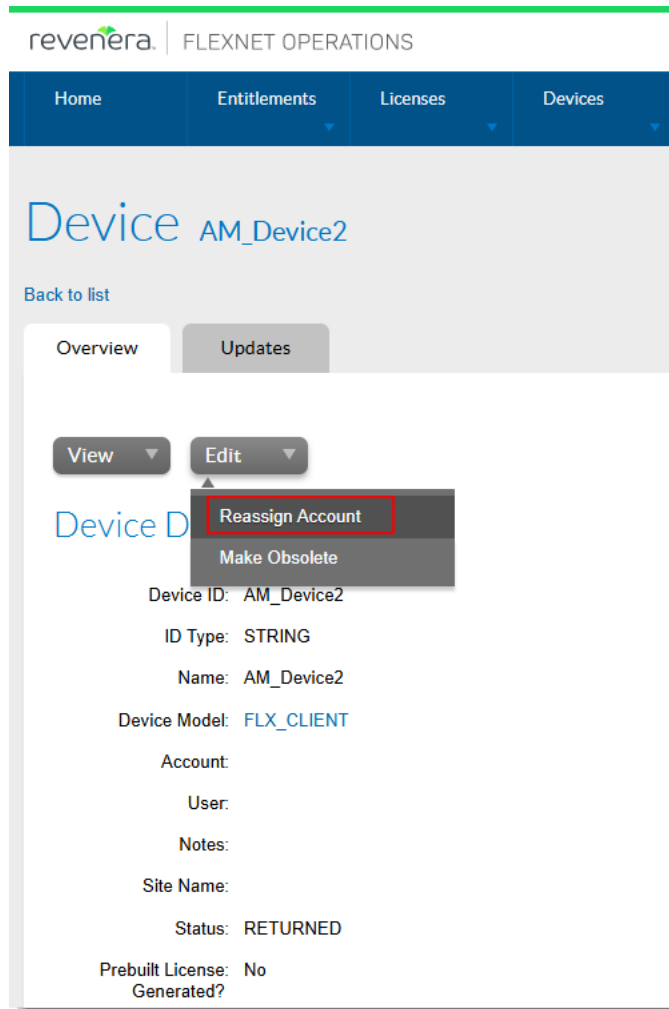
Clicking **Reassign Account** opens the **Assign account** page, where you can select a new account for the device.

After a standalone device has been reassigned to an account, the device status is changed to Active. The device can now have entitlements mapped to it.

Reassigning a Standalone Device Using Web Services

Returned standalone devices can also be reassigned using the **updateDevice** operation of the ManageDeviceService web service.

The following code snippet illustrates how to use the **updateDevice** operation:

```
<urn:updateDeviceRequest>
      <urn:device>
        <urn:deviceIdentifier>
          <urn:deviceType>CLIENT</urn:deviceType>
          <!-- Note: This is the device to be updated, currently in RETURNED state -->
          <urn:deviceId>Test123</urn:deviceId>
          <urn:deviceIdType>STRING</urn:deviceIdType>
          <urn:publisherName>fnepublisher</urn:publisherName>
        </urn:deviceIdentifier>
        <urn:updateChannelPartners>
          <urn:channelPartners>
            <urn:channelPartner>
              <!-- Note: Only END CUSTOMER is supported as per existing functionality-->
              <urn:tierName>bo.constants.partnertiernames.endcustomer</urn:tierName>
              <!-- Note: This is the account to which the device is to be reassigned -->
                <urn:accountUnit>
```

```
                    <urn:primaryKeys>
                        <urn:name>MyAccount</urn:name>
                    </urn:primaryKeys>
                </urn:accountUnit>
            </urn:channelPartner>
        </urn:channelPartners>
        <!-- Note: Only REPLACE is supported as per existing functionality-->
        <urn:opType>REPLACE</urn:opType>
        </urn:updateChannelPartners>
    </urn:device>
</urn:updateDeviceRequest>
```

There have been no changes to any of the .wsdl or .xsd files for SOAP services.

Reassigning a Standalone Device Using the End-User Portal

To use a returned standalone device in the End-User Portal, the device must first be reassigned to an account using the Producer Portal. Once it has been assigned to an account, an end user can claim the device in the End-User Portal by clicking **Devices** > **Claim and Activate**.

Note ▪ The Claim and Activate option only appears in the Devices menu of the End-User Portal for users with roles specifically granted the End-User Portal permissions Claim Device and Activate and Generate Licenses.

SOAP and REST Web Services Enhancements

The following enhancements were added to the SOAP and REST Web Services module in the 2025 R1 release.

- Zero Mapping of Activation IDs on Cloud License Servers Using ManageDevice SOAP Web Service (Version 7)

- Returning Fulfillment and License Information for Non-Embedded Technologies Using LicenseService Web Service (Version 2)

- New Operation for Getting Host Count in LicenseService Web Service (Version 2)

- getEntitlementLineItemPropertiesQuery Returning Licenses for Multiple Accounts in EntitlementOrderService Web Service (Version 8)

- Managing Upgrade Relationship Using EntitlementOrderService Web Service (Version 7)

- Returning Users from All Related Accounts Using UserAcctHierarchyService (Version 6)

- UserAcctHierarchyService Version 6: Returning User Information for Multiple Accounts Using UserAcctHierarchyService (Version 6)

- Event Notification API: Device Event Notifications Published to Webhook

- Event Notification Service REST API Supporting Event Notifications for Device Events

- Product Packaging Data Extract Now Includes Product Version

Zero Mapping of Activation IDs on Cloud License Servers Using ManageDevice SOAP Web Service (Version 7)

(SWM-25022)

The 2025 R1 release introduces version 7 of the ManageDevice SOAP web service. The new version contains a new operation, **zeroCountAddonLineItems**, which enables producers to explicitly set an activation ID with a zero allocation mapping on a Cloud License Server (CLS) instance.

This enhancement enables customers to clearly distinguish between activation IDs that are fully entitled for allocation (full count) and those that are restricted for allocation on the CLS.

Previously, when querying activation IDs via SOAP services like **searchDevices**, there was no easy way to identify activation IDs that were intentionally restricted from allocation. Such activation IDs simply did not appear, making it difficult for customers to differentiate between no mapping and full allocation from the master entitlement.

By explicitly creating a zero allocation mapping, producers can track and manage entitlement behavior accurately, improving license compliance and allocation control across their deployments.

Notes for Using zeroCountAddonLineItems

- The configuration option **Allow mapping zero counts to FlexNet Embedded devices** (under **System > Configure > FlexNet Operations > Embedded Device Settings**) must be selected.

- Values submitted in the web request are not validated. As long as the request contains a valid device ID and line item details, the relevant mapping will be updated.

- No validation takes place. Whatever mapping line item customer provides is mapped to a particular device, regardless of e.g. whether the license model is supported.

- Information related to calling the **zeroCountAddonLineItems** operation will be tracked and can be reviewed on the **Search Transactions** page in the Producer Portal (under **System > Transaction History**).

Example Request for zeroCountAddonLineItems

The sample code, below, shows a request to allocate zero counts from activation ID **83a2-9824-c72b-488t-bbde-9bbb-fce3-1344** to the device with ID **device1_type**.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance">
  <soapenv:Header/>
  <soapenv:Body>
    <urn:zeroCountAddonLineItemsRequest>
      <!-- 1 or more repetitions: -->
      <urn:requestList>
        <urn:deviceIdentifier>
          <urn:deviceType>SERVER</urn:deviceType>
          <!-- Optional: -->
          <urn:deviceId>device1_type</urn:deviceId>
          <!-- Optional: -->
          <urn:serverIds>
            <!-- 1 or more repetitions -->
            <urn:serverId>device1_type</urn:serverId>
          </urn:serverIds>
```

```
            <!-- Optional: -->
            <urn:deviceIdType>ETHERNET</urn:deviceIdType>
            <!-- Optional: -->
            <urn:publisherName>FLEXERA</urn:publisherName>
          </urn:deviceIdentifier>
          <!-- 1 or more repetitions: -->
          <urn:lineItem>
            <urn:lineItemIdentifier>
              <!-- Optional: -->
              <urn:activationId>83a2-9824-c72b-488t-bbde-9bbb-fce3-1344</urn:activationId>
              <!-- Optional: -->
              <urn:count>0</urn:count>
              <!-- Optional: -->
            </urn:lineItemIdentifier>
          </urn:lineItem>
        </urn:requestList>
      </urn:zeroCountAddonLineItemsRequest>
   </soapenv:Body>
</soapenv:Envelope>
```

Example Response for zeroCountAddonLineItems

The sample code, below, shows a response for a successful request.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance">
   soapenv:Body
      <zeroCountAddonLineItemsResponse xmlns="urn:v7.fne.webservices.operations.flexnet.com">
        <statusInfo>
          <status>SUCCESS</status>
        </statusInfo>
        <responseData>
          <deviceIdentifier>
            <deviceType>SERVER</deviceType>
            <deviceId>device1_type</deviceId>
            <serverIds>
              <serverId>device1_type</serverId>
            </serverIds>
            <deviceIdType>ETHERNET</deviceIdType>
            <publisherName>FLEXERA</publisherName>
          </deviceIdentifier>
        </responseData>
      </zeroCountAddonLineItemsResponse>
   </soapenv:Body>
</soapenv:Envelope>
```

Returning Fulfillment and License Information for Non-Embedded Technologies Using LicenseService Web Service (Version 2)

(Case 02370066, SWM-22714)

In the Producer Portal, producers can list fulfillment or license information for non-embedded licensing technology (such as FlexNet Publisher) for specific hostids on the **Support Licenses and Maintenance** page (under **Licenses** > **Hosts**). The following screenshot shows the **Support Licenses and Maintenance** page along with the search options:

To provide the same functionality using web services, the 2025 R1 release now introduces version 2 of the `LicenseService` SOAP web service. This enhancement enables producers to do the following:

- Collect all hostids to provide a list of current hostids for new activations

- Collect all active fulfillments for a dedicated server in preparation to create "emergency" licenses for that server

- Collect fulfillment and license information in preparation to rehost a server

Implementation of getHostQuery

Version 2 of the `LicenseService` SOAP web service includes the new operation **getHostQuery**. The following XML fragment illustrates a **getHostQuery** message:

```
<operation name="getHostQuery">
    <input message="tns:getHostQueryRequest"/>
    <output message="tns:getHostQueryResponse"/>
</operation>
```

The operation **getHostQuery** extracts the same information as that available on the **Support Licenses and Maintenance** page: Host ID, Sold To, Account, License Technology, and Host Type. In addition, producers can filter for hosts that have active or inactive fulfillments.

*Tip ▪ For pagination, producers can use the **getHostCount** operation to determine the number of hosts and specify that number in the `batchSize` parameter (see New Operation for Getting Host Count in LicenseService Web Service (Version 2)).*

The following snippet shows sample XML code:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:urn="urn:v2.webservices.operations.flexnet.com">
    <soapenv:Header/>
    <soapenv:Body>
```

```
            <urn:getHostQueryRequest>
                <!--Optional:-->
                <urn:queryParams>
                    <!--Optional:-->
                    <urn:hostId>
                        <urn:value>?</urn:value>
                        <urn:searchType>?</urn:searchType>
                    </urn:hostId>
                    <!--Optional:-->
                    <urn:soldTo>
                        <urn:value>?</urn:value>
                        <urn:searchType>?</urn:searchType>
                    </urn:soldTo>
                    <!--Optional:-->
                    <urn:licenseTechnology>
                        <urn:value>?</urn:value>
                        <urn:searchType>?</urn:searchType>
                    </urn:licenseTechnology>
                    <!--Optional:-->
                    <urn:hostType>
                        <urn:value>?</urn:value>
                        <urn:searchType>?</urn:searchType>
                    </urn:hostType>
                    <!--Optional:-->
                    <urn:account>
                        <urn:value>?</urn:value>
                        <urn:searchType>?</urn:searchType>
                    </urn:account>
                    <!--Optional:-->
                    <urn:fulfillmentState>
                        <urn:value>?</urn:value>
                        <urn:searchType>?</urn:searchType>
                    </urn:fulfillmentState>
                </urn:queryParams>
                <urn:pageNumber>?</urn:pageNumber>
                <urn:batchSize>?</urn:batchSize>
            </urn:getHostQueryRequest>
        </soapenv:Body>
</soapenv:Envelope>
```

New Operation for Getting Host Count in LicenseService Web Service (Version 2)

(Related to Case 02370066, SWM-25245)

Along with the **getHostQuery** operation (see Returning Fulfillment and License Information for Non-Embedded Technologies Using LicenseService Web Service (Version 2)), version 2 of the LicenseService SOAP web service also introduces the **getHostCount** operation. **getHostCount** returns the number of hosts that match specified criteria.

This operation is equivalent to displaying the number of hosts that fit certain criteria by filtering hosts using the **Search for** option in the Producer Portal in the **Support Licenses and Maintenance** page:

Implementation of getHostCount

The following XML fragment illustrates a **getHostCount** message:

```
<operation name="getHostCount">
    <input message="tns:getHostCountRequest"/>
    <output message="tns:getHostCountResponse"/>
</operation>
```

The operation **getHostCount** returns the number of hosts that fit specified criteria. The following search criteria are available: Host ID, Sold To, Account, License Technology, and Host Type.

*Tip ▪ The returned number can be used as the batch size input for **getHostQuery** (see Returning Fulfillment and License Information for Non-Embedded Technologies Using LicenseService Web Service (Version 2)).*

The following snippet shows sample XML code:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:urn="urn:v2.webservices.operations.flexnet.com">
   <soapenv:Header/>
   <soapenv:Body>
      <urn:getHostCountRequest>
         <!--Optional:-->
         <urn:queryParams>
            <!--Optional:-->
            <urn:hostId>
               <urn:value>?</urn:value>
               <urn:searchType>?</urn:searchType>
            </urn:hostId>
            <!--Optional:-->
```

```
                    <urn:soldTo>
                        <urn:value>?</urn:value>
                        <urn:searchType>?</urn:searchType>
                    </urn:soldTo>
                    <!--Optional:-->
                    <urn:licenseTechnology>
                        <urn:value>?</urn:value>
                        <urn:searchType>?</urn:searchType>
                    </urn:licenseTechnology>
                    <!--Optional:-->
                    <urn:hostType>
                        <urn:value>?</urn:value>
                        <urn:searchType>?</urn:searchType>
                    </urn:hostType>
                    <!--Optional:-->
                    <urn:account>
                        <urn:value>?</urn:value>
                        <urn:searchType>?</urn:searchType>
                    </urn:account>
                    <!--Optional:-->
                    <urn:fulfillmentState>
                        <urn:value>?</urn:value>
                        <urn:searchType>?</urn:searchType>
                    </urn:fulfillmentState>
                </urn:queryParams>
            </urn:getHostCountRequest>
        </soapenv:Body>
</soapenv:Envelope>
```

getEntitlementLineItemPropertiesQuery Returning Licenses for Multiple Accounts in EntitlementOrderService Web Service (Version 8)

(Case 02877724, SWM-23429)

The `EntitlementOrderService` web service has been updated to v8, with a modified **getEntitlementLineItemPropertiesQuery** which now allows searching by multiple account names. The `<urn:value>` element of the complex element `<urn:accountUnitName>` can be repeated multiple times to search by multiple account names.

This change enables producers to retrieve the licenses and detailed licensing information for specified accounts.

The number of accounts to search for can be limited using a new configuration option called **Maximum number of Account names accepted to search for Entitlement Line Item Properties** (under **System** > **Configure** > **FlexNet Operations** > **General Options**).

If the number of `<urn:value>` elements in the request exceeds the configured limit, an error message will be returned.

Using multiple <urn:value> elements

The following limitations apply when supplying multiple `<urn:value>` elements as search parameters:

● If the query also includes other search parameters, then for those parameters only the default values are considered.

- The `<urn:searchType>` parameter is optional. If used, it accepts only EQUALS. Any other value passed for `<urn:searchType>` will result in an error message.

- The `<urn:partnerTier>` will not be used and a default of search by ANY partner tier will be applied.

Note ▪ *The limitations only apply when using multiple elements. If a single <urn:value> element is provided, then the behavior of the search is the same as in v7 (meaning that all allowed values for <urn:searchType> or <urn:partnerTier> can be used as search criteria).*

Snippet of a sample request

```
<urn:searchEntitlementLineItemPropertiesRequest>
  <urn:queryParams>
    <urn:accountUnitName>
      <!--1 or more repetitions:-->
      <urn:value>MyAccount01</urn:value>
      <urn:value>MyAccount02</urn:value>
      <urn:value>MyAccount03</urn:value>
      <urn:value>MyAccount04</urn:value>
      <urn:value>MyAccount05</urn:value>
    </urn:accountUnitName>
  </urn:queryParams>
</urn:searchEntitlementLineItemPropertiesRequest>
```

Effects on Entitlement Order REST Endpoints

Note the following changes to the request object for Entitlement Order REST endpoints.

Entitlement Order REST endpoints have two objects in the request: `accountId` and `accountUnitName`. No changes have been made to the `accountId` (PartnerTierQueryTypeDTO) object. However, the `accountUnitName` (AccountNamesQueryTypeDTO) object now accepts a string array for the field value. Currently, only a single value is supported. Searching by multiple account names is enabled only in the **getEntitlementLineItemPropertiesQuery** webservice operation.

Usage Example

```
{
    "queryParams": {
        "accountUnitName": {
            "value": ["ACME"],
            "searchType": "STARTS_WITH"
        }
    }
}
```

Managing Upgrade Relationship Using EntitlementOrderService Web Service (Version 7)

(Case 02860233, 02746301; SWM-20708, SWM-21094)

Version 7 and later versions of the `EntitlementOrderService` SOAP web service enable producers to add or remove an Upgrade relationship between two valid line items. In the `updateEntitlementLineItem` method, the `parentLineItem` element now includes the element `lineItemType`, which supports the new value NEW.

This functionality was already available in the Producer Portal, and this enhancement now creates parity between the Producer Portal and SOAP web services.

Sample code for creating an Upgrade relationship

Provide valid activation IDs for the `lineItemData` and `parentLineItem` elements, and specify the value UPGRADE for `lineItemType`, as shown in the following example:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:urn="urn:v7.webservices.operations.flexnet.com">
   <soapenv:Header/>
   <soapenv:Body>
      <urn:updateEntitlementLineItemRequest>
         <urn:lineItemData>
            <urn:entitlementIdentifier>
               <urn:primaryKeys>
                  <urn:entitlementId>8380-7252-e0fc-4ddf-a203-0170-7120-de80</urn:entitlementId>
               </urn:primaryKeys>
            </urn:entitlementIdentifier>
            <urn:lineItemData>
               <urn:lineItemIdentifier>
                  <urn:primaryKeys>
                     <!-- Activation ID of line item that should be linked to a parent-->
                     <urn:activationId>6e37-c975-5c79-47c9-a312-59ed-dafb-d872</urn:activationId>
                  </urn:primaryKeys>
               </urn:lineItemIdentifier>
               <urn:description>Upgrade relationship added</urn:description>
               <urn:parentLineItem>
               <urn:uniqueId/>
                  <urn:primaryKeys>
                  <!-- Activation ID of line item that that will become a Parent reference -->
                  <urn:activationId>5fe9-3acb-9b1a-4eec-8dc4-7792-9dc1-6fb7</urn:activationId>
                  </urn:primaryKeys>
                  <!-- New element added. Upgrade relation to be set with the Parent reference -->
                  <urn:lineItemType>UPGRADE</urn:lineItemType>
               </urn:parentLineItem>
            </urn:lineItemData>
         <urn:autoDeploy>false</urn:autoDeploy>
         </urn:lineItemData>
      </urn:updateEntitlementLineItemRequest>
   </soapenv:Body>
</soapenv:Envelope>
```

Sample code for removing an Upgrade relationship

Provide valid activation IDs for the `lineItemData` and `parentLineItem` elements, and specify the value NEW for `lineItemType`, as shown in the following example:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:urn="urn:v7.webservices.operations.flexnet.com">
   <soapenv:Header/>
```

```
<soapenv:Body>
  <urn:updateEntitlementLineItemRequest>
    <urn:lineItemData>
      <urn:entitlementIdentifier>
        <urn:primaryKeys>
          <urn:entitlementId>8380-7252-e0fc-4ddf-a203-0170-7120-de80</urn:entitlementId>
        </urn:primaryKeys>
      </urn:entitlementIdentifier>
      <urn:lineItemData>
        <urn:lineItemIdentifier>
          <urn:primaryKeys>
            <urn:activationId>9875-c692-7e64-4c80-89ab-9c8e-adcc-4f5b</urn:activationId>
          </urn:primaryKeys>
        </urn:lineItemIdentifier>
        <urn:description>Unlink parent relation</urn:description>
        <urn:parentLineItem>
        <urn:uniqueId/>
          <urn:primaryKeys>
            <urn:activationId>5fe9-3acb-9b1a-4eec-8dc4-7792-9dc1-6fb7</urn:activationId>
          </urn:primaryKeys>
          <urn:lineItemType>NEW</urn:lineItemType>
        </urn:parentLineItem>
      </urn:lineItemData>
      <urn:autoDeploy>false</urn:autoDeploy>
    </urn:lineItemData>
  </urn:updateEntitlementLineItemRequest>
</soapenv:Body>
</soapenv:Envelope>
```

Returning Users from All Related Accounts Using UserAcctHierarchyService (Version 6)

(Case 02809222, SWM-21120)

In the UserAcctHierarchyService web service (newly introduced version 6), producers can use the new optional field usersFromLinkedAccount to provide one account ID to return all users belonging to that account and to any of its direct sub-accounts.

The field usersFromLinkedAccount is available for the **getUsersQuery** and **getUsersCount** operations.

The following example describes the behavior. Assume an organization has the following accounts:

- Account **A1** is the parent of sub-accounts **a1** and **a1.1**
- Account **a1.1** is the parent of sub-account a1.2
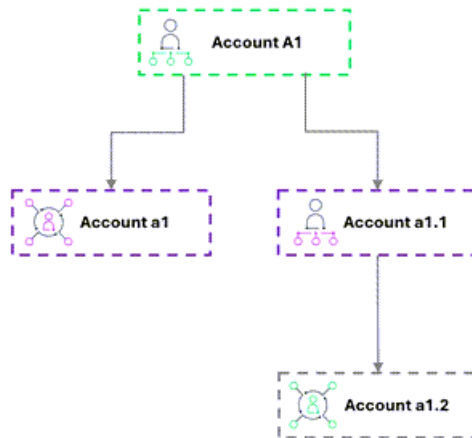
A query for account ID or account name **A1** with usersFromLinkedAccount = **true** would return users from all three accounts—**A1**, **a1**, and **a1.1**—that are directly linked to **A1**:

Accounts returned when searching for **Account A1** and usersFromLinkedAccount = **true**
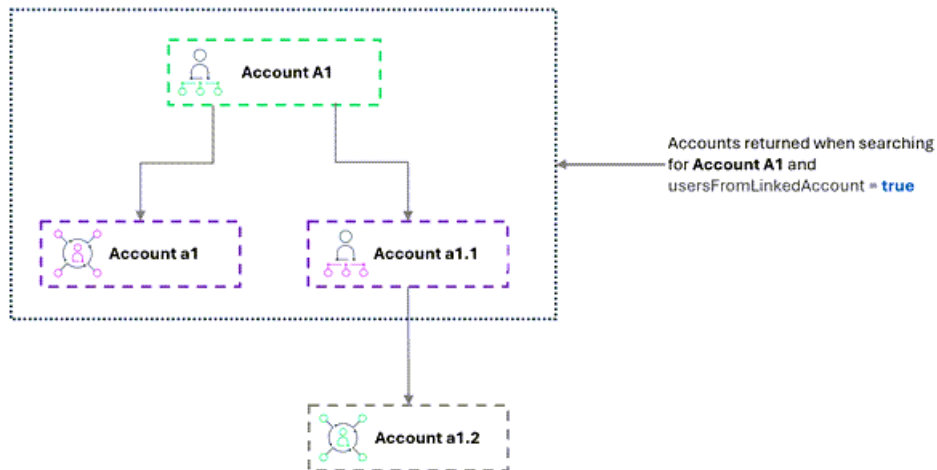
When searching for account ID or account name **a1.1**, users from accounts **a1.1** and a1.2 will be listed in the response, but no users from **A1**:

Accounts returned when searching for **Account a1.1** and usersFromLinkedAccount = **true**
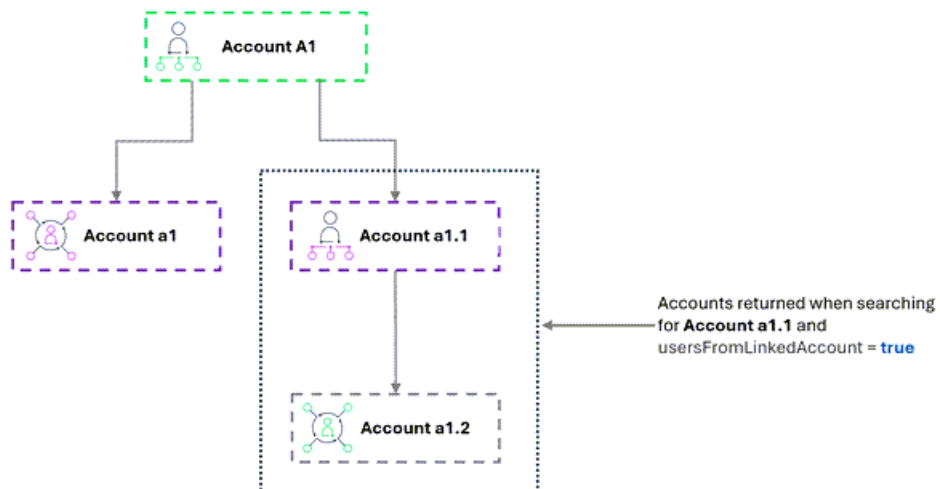
When `usersFromLinkedAccount` is set to `true`, only one account ID and/or account name can be provided as search parameter. A search using more than one account ID returns the following error: "Multiple Account Ids cannot be provided in the request when usersFromLinkedAccount is set to true."

UserAcctHierarchyService Version 6: Returning User Information for Multiple Accounts Using UserAcctHierarchyService (Version 6)

(Case 02809222, SWM-20374)

Producers can now use version 6 of the of the SOAP web service `UserAcctHierarchyService` to retrieve user information for multiple accounts using a single API call. This enhancement reduces the number of API calls required to return user information. To retrieve information for multiple accounts, producers specify the 10 account IDs in the **getUsersQuery** API request.

By default, the number of account IDs that can be specified is limited to 10 accounts. The limit is controlled by a new configuration option, **Number of accounts and associated user information to retrieve via SOAP API** (under **System** > **Configure** > **FlexNet Platform Server** > **General Options**), which allows producers to modify this limit. Setting the option to **-1** allows querying an unlimited number of accounts. Producers should bear in mind that specifying **-1** might have a negative impact on system performance.

Event Notification API: Device Event Notifications Published to Webhook

(SWM-23427)

Producers can now use the Event Notification Service API to trigger an event notification whenever a change is made to a license server. Real-time data about the event is delivered to a specified webhook URL where the data can be consumed programmatically to update the producer's upstream or downstream systems.

Changes that can now trigger an event notification include the following:

- Changes to license server attributes like device name, site name, notes, device owner, set of line items mapped to it, or the quantities mapped.
- Certain events on the license server, such as:
  - Return license server
  - Move license server
  - Mapping entitlements to license server
  - Removing license from license server
  - Mapping activation ID to license server

Event Notification Service REST API Supporting Event Notifications for Device Events

(SWM-20802)

Producers can now use the Event Notification Service API to trigger an event notification whenever a specific event related to devices occurs. Real-time data about the event is delivered to a specified webhook URL where the data can be consumed programmatically to update the producer's upstream or downstream systems.

The following parameters have been added to the **/notificationService** endpoint:

- `deviceSubscription`—Set to `true` to subscribe to event notifications for device changes.

- `deviceWehookUrl`—Webhook endpoint that receives the information about device events.

Product Packaging Data Extract Now Includes Product Version

(Case 02488178, SWM-19920)

When exporting a set of products using the Product Packaging Data Extract job (controlled by the Data Extract REST APIs), the resulting `ProductsLicenseModel-<date and time>.csv` file now includes a **ProductVersion** column which specifies the product version for each product listed in the file.

Inclusion of the **ProductVersion** column in the CSV file is controlled by a new configuration option called **Show product version in extract file** (under **System** > **Configure** > **FlexNet Operations** > **General Options**). By default, the option is not selected (meaning that the CSV file does not include product version information).

This enhancement enables producers to differentiate between products that have different versions.

Security Enhancements

The following enhancement related to FlexNet Operations security was made in the 2025 R1 release.

Token-Based Authentication in REST and SOAP APIs

(SWM-19491)

Previously, FlexNet Operations REST and SOAP APIs used Basic Authentication as their authentication scheme. While Basic Authentication is simple, it is considered less secure. The 2025 R1 release therefore introduces token-based authentication, which is more secure than basic authentication.

In token-based authentication, the client first authenticates with their credentials. If successful, they receive an access token, which must then be included as a Bearer token in the Authorization HTTP header for subsequent requests.

Access Tokens are provided as an alternative way to authenticate and authorize web service calls to FlexNet Operations, so that integrations do not have to embed user credentials for Basic authentication.

In token-based authentication for FlexNet Operations APIs, producers and system administrators call the **access-token-controller** REST web service to request an access token with a limited expiration from FlexNet Operations. The token that is returned by the web service must then be added to the header of the API request when firing requests to a FlexNet Operations API (REST or SOAP).

Producers can also obtain access tokens using the new option **Manage Access Tokens** (available from the **Accounts & Users** menu) in the Producer Portal or the End-User Portal. Producers who do not want to allow customer users and partner users to create access tokens in the End-User Portal can select the configuration option **Hide Access Tokens** (under **System** > **Configure** > **End-User Portal Setup** > **Manage Accounts & Users**).

The access token not only authenticates the requester but also defines the permissions of how the requester can use the API, depending on the token type:

- NORMAL tokens can be requested by any FlexNet Operations user to authenticate themselves at a FlexNet Operations API.

- IMPERSONATED tokens can be requested by system administrators to impersonate other FlexNet Operations users.

Token-based authentication is currently available for the following APIs:

- SOAP Web Services

- Data Extract REST API

- Application REST API

User Experience Enhancements

The following user experience enhancements were added in the 2025 R1 release.

- Improved Transaction Visibility in Producer Portal

- Transaction History Includes Details of Device Creation and Modification Events

- Selecting Individual Line Items in Entitlement Notification Email

- Removed Security Question

- New Configuration Hides Menu Options for Making Entities Obsolete

- Larger Announcements Section on Home Page

- Meaningful Labels For Search in "List Entitlements" Page in End-User Portal

- Displaying All Active Custom Line Item Attributes

- Enhanced Expiration Information on View Server and View Device Pages

- Sorting Features on the Products Page in the Producer Portal

- Fewer Clicks Required to Change Line Items' Start or Expiration Dates

- Entitlement ID and Start Date Now Displayed on Key Pages

- Easier Login to Revenera Registry

Improved Transaction Visibility in Producer Portal

(SWM-24573, SWM-24811, SWM-24812, SWM-24813, SWM-24817, SWM-24818)

Producers can now view all transactions performed on a device—whether initiated via web services or in the Producer Portal or End-User Portal—on the **Search Transactions** page in the Producer Portal (under **System** > **Transaction History**).

There are three exceptions to the webservice-based transactions reported:

- Returning a device when it is no longer in use

- Any changes initiated using generateCapabilityResponse

- Any requests to generate a clone detection report

Previously, only transactions performed through the Producer Portal or the End-User Portal interface were tracked in the Transaction History.

This enhancement provides a comprehensive audit trail, enabling better tracking of past actions for compliance and troubleshooting purposes.

For more details, see the following sections:

- Tracked Operations
- Use Case Example
- Viewing Transaction Details

Tracked Operations

Transactions are tracked for standalone devices, Cloud License Server instances and local license servers. The following table lists the operations of the `ManageDeviceService` web service that are now racked:

Transaction	Web Service Operation	Event Type	Description
Deleting a line item from a device	`deleteAddOnLineItemsRequest`	UPDATE	Tracks transactions where an entitlement line item was deleted on a device.
Obsoleting the host for a device	`obsoleteHostRequest`	DELETE	Tracks transactions where a host for a device was deleted.
Removing add-on line items	`decrementAddonLineItemsRequest`	UPDATE	Tracks transactions where an add-on line item was removed from a device.
Moving a device to a different account	`moveDeviceRequest`	UPDATE	Tracks transactions where a device is moved to a different account.
Deleting a device	`deleteDeviceRequest`	DELETE	Tracks transactions where a device is deleted.
Creating a device	`createDeviceRequest`	CREATE	Tracks all successful and failed attempts to create a device.
Linking entitlement line items to a device	`linkAddonLineItems`	UPDATE	Tracks transactions where an entitlement line item was linked to a device, or where a metered license was removed from a device.
Incrementing entitlement line items to devices	`IncrementAddonLineItems`	UPDATE	Tracks transactions where an entitlement line item was incremented on a device.

Transaction	Web Service Operation	Event Type	Description
Updating a device	`updateDevice`	UPDATE	Tracks transactions where a device was updated.

Use Case Example

Your company provides industrial software licenses via FlexNet Operations. A customer complains that their software has stopped working. Your support team checks the Transaction History in the Producer Portal and sees that your customer's own IT administrator mistakenly deactivated the license. Instead of escalating the issue, you can immediately guide them to reactivate their license, saving time and frustration.

Viewing Transaction Details

To view transaction details for a device, click **System** > **Transaction History**. On the **Search Transaction History** page, select the entity type **Device**, and enter any other search criteria. The **Search Transactions: Results** page displays a list of transactions. Click the **View details** link to see the details of a particular transaction. The details will look similar to this:
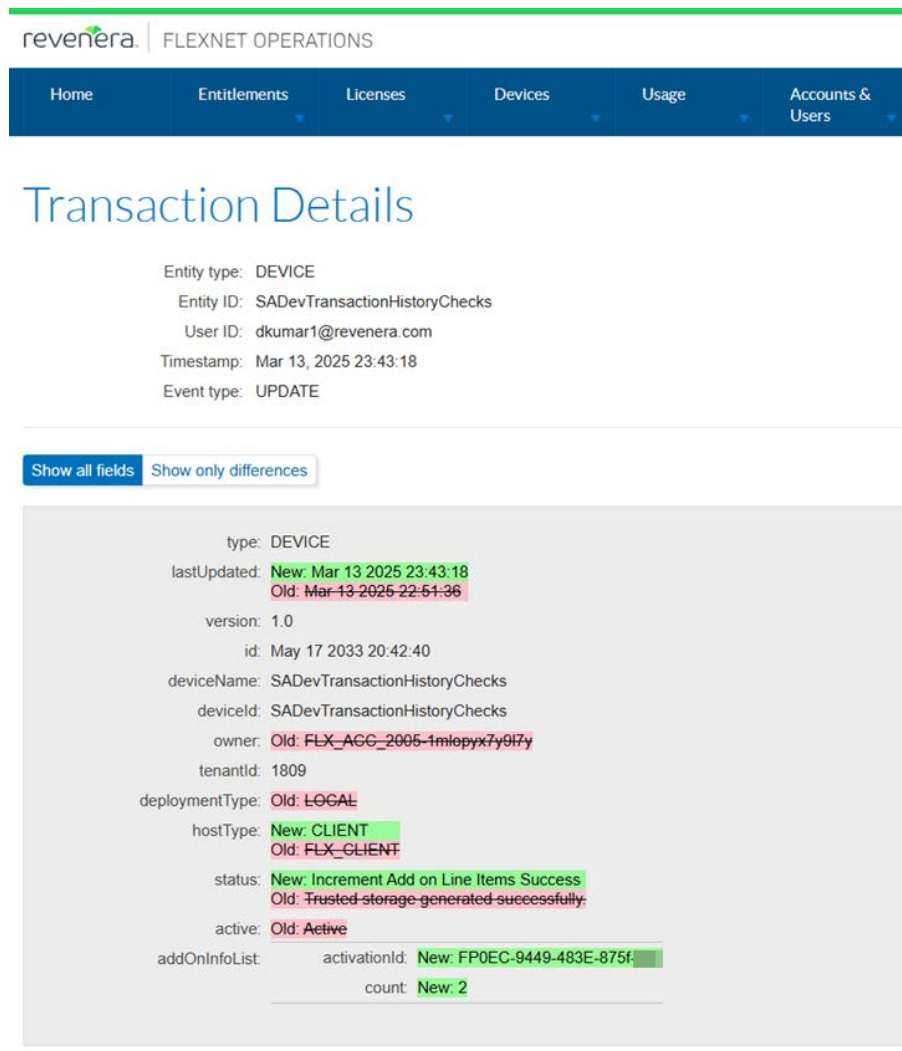
Figure 22: The **Transaction Details** page showing updates made to a device

Transaction History Includes Details of Device Creation and Modification Events

(SWM-23109, SWM-21003, SWM-23110)

FlexNet Operations users can now view the details for device creation and modification activity in the transaction history. Device modification activity includes, for example, changing a device name, user, site name or description. Tracking modification activity for devices provides valuable insights for ensuring accountability, identifying unauthorized changes, and maintaining a clear audit trail for security and compliance purposes.

Users can access the transaction history in the following ways:

● Click **System** > **Transaction History**. For **Entity type**, select **Device** and specify any other search parameters as required. Clicking **Search** opens the **Search Transactions: Results** page which shows the events for the Device entity.

- Click **Accounts & Users** > **All Users**. Click a hyperlinked user name. On the **Create a User** page, click **View Transaction**. FlexNet Operations displays the **Search Transactions: Results** page which shows all events for the selected user. The table can be sorted as required, to focus on particular event types or entity types.

On the **Search Transactions: Results** page, the creation of a new device is logged as CREATE in the **Event type** column, whereas edits to a device are logged as an UPDATE event. Clicking the **View details** link for an event shows the following metadata (non-exhaustive list):

- Device ID/name

- Producer's user ID and username

- Timestamp of creation or modification

- Any attributes

- Activity related to removing a device

- Activity related to returning a license for a device

- Activity related to making a device obsolete.

For edits to devices, the transaction details show the old as well as the new field values.

Note ▪ The transaction history for devices only lists modifications to devices made through the Producer Portal. It does not list modifications made using web services.

Selecting Individual Line Items in Entitlement Notification Email

(Case 02971350, SWM-24682)

On the **List Entitlement By Orders** page, producers can now select individual line items to be included in the entitlement notification email, instead of including all line items in the email. This is useful in scenarios where only some of an entitlement's line items have been added or updated.

To include only certain line items from an entitlement, a producer needs to select the desired line items on the **List Entitlement By Orders** page and click the **Email** button, as shown in this screenshot:

The next screen will show the entitlement notification email, which only contains the selected line item. The notification email might look like this:

Previously, if an entitlement contained more than one line item, the entitlement notification email would always include all of the entitlement's line items.

Removed Security Question

(Case 02954443, SWM-24008)

When users set or change their password for the Producer Portal or the End-User Portal, they need to select a security question as an additional authentication factor. In previous releases, the list of security questions included the question "Where were you when you first heard about 9/11?". In the 2025.03 release, inclusion of this question has changed because it could be distressing for some users:

- **New users and users who did not use 9/11 as a security question** will no longer see the question "Where were you when you first heard about 9/11?" when they are setting their password and security question.

- **Existing users who had already selected "Where were you when you first heard about 9/11?"** as their security question are not forced to select a different security question. Instead, they will see a warning message, "This security question is deprecated and is recommended to be changed." This approach gives existing users time to select a new security question. Once they selected a different security question, the message is no longer displayed.

The following screenshot shows the screen presented to existing users:

Figure 23: Existing users are informed that the 9/11 security question is deprecated.

These changes apply to the Producer Portal and End-User Portal.

New Configuration Hides Menu Options for Making Entities Obsolete

(Case 02902521, SWM-22852)

In FlexNet Operations, the status "Obsolete" is typically used to remove entities (for example, products, features, feature bundles, devices, suites, and license models) from use permanently. This status helps distinguish outdated or superseded entities from those currently in use, without completely deleting them from the system.

However, producers need to use great care when setting an entity's status to Obsolete, because the status Obsolete is permanent and cannot be reverted. The 2025.01 release therefore introduces the configuration option **Allow state change of entities to obsolete** (under **System** > **Configure** > **FlexNet**

Operations > **General Options**), which enables producers to hide the **Obsolete** or **Make Obsolete** menu options in the Producer Portal. Specifically, when the option is unselected, the **Obsolete** or **Make Obsolete** menu options are no longer displayed in the following locations in the Producer Portal:

- **Entitlements** > **List Entitlements By Order** > **Change State** menu

- **Entitlements** > **Create** > **Line Items** and **Maintenance Line Items** tabs > **Change State** menu

- **Devices** > **Devices** > clicking the hyperlinked device name opens the **Device** or **View Server** page > **Edit** menu

- **Products** > **Products** > **Change State** menu

- **Products** > **Features** > **Change State** menu

- **Products** > **Feature Bundles** > **Change State** menu

- **Products** > **Suites** > **Change State** menu

- **Administer** > **License Models** > **Change State** menu

Unselecting **Allow state change of entities to obsolete** prevents users from—accidentally or intentionally—changing the state of products, features, feature bundles, devices, suites, license models, and similar entities, to Obsolete using the user interface. However, entities can still have their status changed to Obsolete using an API web service call.

By default, **Allow state change of entities to obsolete** is selected.

Note ▪ Operations that involve changing an entity's state to Obsolete as part of a transfer or upgrade process are not impacted.

Larger Announcements Section on Home Page

(Case 02893461, SWM-22764)

On the Producer Portal home page, the **Announcements** section has been enlarged and can now display more information without the need to scroll. Scrolling is only required for very long announcements.

Meaningful Labels For Search in "List Entitlements" Page in End-User Portal

(Case 02782395, SWM-21306)

In the End-User Portal, on the **List Entitlements** page, two of the labels in the Search drop-down menu have been changed to more meaningful names, which now also match the equivalent labels used in the Producer Portal:

Old Label	New Label
Sold-to display name	Sold-to Account Name
Sold-to ID	Sold-to Account ID

📋

Note ▪ The change only applies to the English locale. Label changes for other languages will be implemented in a future release.

Displaying All Active Custom Line Item Attributes

(Case 02870375, SWM-21901)

The Producer Portal and End-User Portal now display all active custom line item attributes that have a value defined on the **Line Item Details** and **Entitlement Details** pop-up windows.

Enhanced Expiration Information on View Server and View Device Pages

(Case 02860395, SWM-20463)

In the Producer Portal and End-User Portal, the **View Server** and **View Device** pages have been enhanced to provide a better overview of the mapped line items' expiration status.

The table in the **Licenses** section contains a new column, **Expiration Status**, which shows whether a line item is active or has expired. By default, the table is sorted to list all active line items first, followed by the expired line items. Within these groups, active and expired line items are sorted by expiration date in ascending order. The line item closest to its expiration date is displayed at the top.

Producers can change the sort order by clicking the column headers, **Expiration Status** and **Expiration Date**.

Sorting Features on the Products Page in the Producer Portal

(Case 02858726; SWM-20353, SWM-22618)

On the **Package Products** page in the Producer Portal, the product's features are sorted by creation date. By default, the oldest feature is displayed at the top of the list.

Fewer Clicks Required to Change Line Items' Start or Expiration Dates

(Cases 02802470, 02875676; SWM-20060)

A new button **Change Start/Expiration Date** has been added to the **Entitle Customers To Licenses** page. It enables producers to change the start and/or expiration date for multiple line items in an entitlement in one step.

In addition, also on the **Entitle Customers To Licenses** page, the table under **Line Items** now includes a **Start date** column, giving producers visibility over all start dates for all activation IDs.

Entitlement ID and Start Date Now Displayed on Key Pages

(Case 02869264; SWM-20273, SWM-20592)

In the Producer Portal, a number of pages have been updated to optionally display additional information, which enables producers to see relevant information at one glance without having to navigate to other pages.

This enhancement affects the following pages of the Producer Portal::

- **Device Details**

- **Map Entitlements**

- **Remove Licenses**

- **Map by Activation IDs**

These pages can now display the following information:

- The column **Entitlement ID** displays the hyperlinked entitlement IDs. Clicking a link opens the **Entitle Customers To Licenses** page with the entitlement details in a new browser tab.

- The column **Start Date** shows the start date of the line-item.

The following system configurations (under **System** > **Configure** > **FlexNet Operations** > **Embedded Device Settings**) control the display of a line item's start date or its entitlement ID on the pages listed above:

- **Display start date**—Displays or hides the **Start Date** column on the **Device Details, Map Entitlements**, **Map by Activation IDs**, and **Remove Licenses** pages while viewing a license server (local license server or Cloud Licensing Service instance) or standalone device. Default: disabled.

- **Display entitlement ID**—Displays or hides the **Entitlement ID** column on the **Device Details, Map Entitlements**, **Map by Activation IDs**, and **Remove Licenses** pages while viewing a license server (local license server or Cloud Licensing Service instance) or standalone device. Default: disabled.

🗐

*Note ▪ You access the **Device Details** and **Map Entitlement** pages as follows:*

- ***Device Details** page: click **Devices** > **Devices** > select a device. The new columns are displayed in the **Licenses** section.*

- ***Map Entitlements** page: click **Devices** > **Devices** > select a device. On the **Device** page, click **Licenses** > **Map Entitlements**. The new columns are displayed in the **Entitlements Available** section.*

- ***Map by Activation IDs** page: click **Devices** > **Devices** > select a device. On the **Device** page, click **Licenses** > **Map by Activation IDs**. The new columns are displayed in the **Entitlements Available** section.*

- ***Remove Licenses** page: click **Devices** > **Devices** > select a device. On the **Device** page, click **Licenses** > **Remove Licenses**. The new columns are displayed in the **Licenses Currently Mapped** section.*

Easier Login to Revenera Registry

(SWM-20249)

An end customer wanting to pull a container image must first log into the registry. However, this presumes that the customer already knows the registry URL, which is not always the case.

To make this process easier for customers, on the **Downloads** page, the End-User Portal now contains a new button, **Container Registry login**, which will copy the Docker login command with the appropriate tenant URL to the clipboard. Customers can then easily paste the command into the Docker command-line interface to log into the registry.
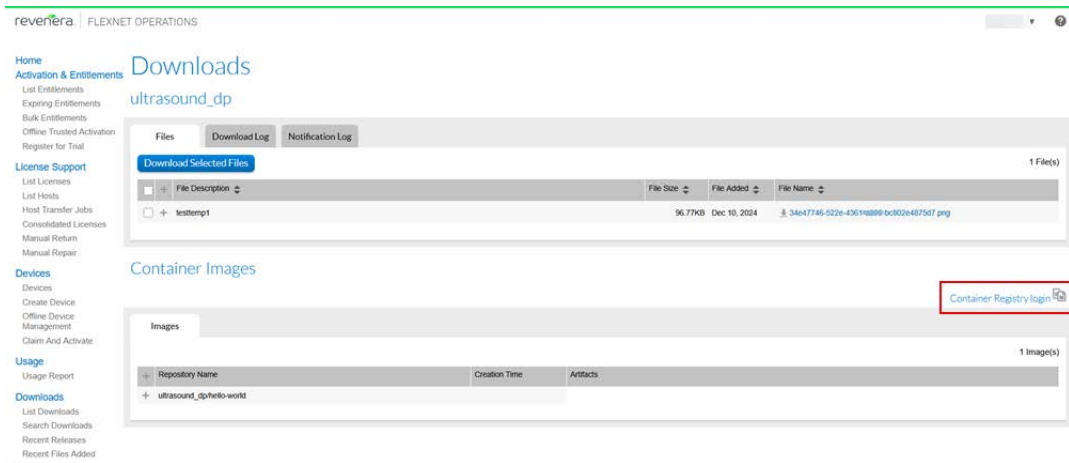
Figure 24: The **Downloads** page of the End-User Portal with the new **Container Registry login** button.

System Requirements

Detailed system requirements for FlexNet Operations 2025 R1 On Premises include the following.

Requirement	Description
Supported Operating Systems	• 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 *Important* ▪ *All Linux platforms must be Linux Standard Base (LSB) compliant.*
Supported databases	• SQL Server 2019 • SQL Server 2017

Requirement	Description
Servers	 ***Note*** ▪ *For best performance, availability, and reliability, install each FlexNet Operations component on a separate host.* **For Windows servers (each)** ● Dual core ● 8 GB of RAM for each component (FlexNet Operations, Cloud Licensing Service, Usage Analytics Service) ● Minimum of 10 GB free disk space **For Linux servers (each)** ● 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 **For Virtual Appliance** ● 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	● Oracle JDK 1.8 ● OpenJDK 1.8
Web browsers	● Microsoft Edge ● Mozilla Firefox 75.0 ● Google Chrome 80.0.3987.163

Requirement	Description
FlexNet licensing module	• FlexNet Publisher Toolkit 11.12.0 or later • FlexNet Embedded Toolkit 2015 R2 or later *Note • FlexNet Operations supports these FlexNet Embedded host ID types: ETHERNET, INTERNET, INTERNET_6, FLEXID9, FLEXID10, STRING, USER, VM_UUID, EXTENDED, PUBLISHER_DEFINED, and CONTAINER_ID.*
Vendor certificate generator	The current versions of the VCG kit are 12.11.0 and 16.2.2.0. These VCGs were tested with the following compilers: • Windows—Visual Studio 2010 Professional Edition • Linux—gcc 4.1.2 (RHEL 5.0) • Linux—gcc 4.4.4 (RHEL 6.0) *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.)*
Supported upgrade paths	You can upgrade from the following previous FlexNet Operations versions to the current version: • 2018 R1 • 2020 R1.1 • 2021 R1 • 2022 R1 • 2023 R1 • 2024 R1
LDAP directory server	Windows 2012 Active Directory
High Speed File Upload	If you intend to use the **High Speed Upload** option to upload files, the following plug-in is required: Aspera Connect 3.10.0 or later

Resolved Issues

The following sections describe the issues that have been resolved in the FlexNet Operations 2025 R1 On-Premises release to date:

- Installation and Upgrade Issues Resolved
- Account and User Management Issues Resolved
- Entitlement Management Issues Resolved
- Electronic Software Delivery Issues Resolved
- Export and Import Issues Resolved
- SOAP and REST Web Services Issues Resolved
- Security Issues Resolved
- User Experience Issues Resolved

Installation and Upgrade Issues Resolved

The following issues were resolved for the installation of FlexNet Operations On-Premises in the 2025 R1 release.

- Initial Login Failure and Password Reset Failure in Offline Environments
- Database Upgrade Error When Using Custom Schema

Initial Login Failure and Password Reset Failure in Offline Environments

(SWM-23876)

After installing FlexNet Operations 2024 R1 On-Premises in an environment without internet access, an issue was encountered during the initial login process. Specifically, when attempting to log in with default credentials, the system attempted to redirect to the FlexNet Operations password reset page. However, the following error is thrown before the redirection completes:

`org.apache.tiles.definition.DefinitionsFactoryException: I/O Error reading definitions.`

This problem is commonly observed during version upgrades of FlexNet Operations and may also occur when selecting the "Forgot Password" option.

This issue has been resolved in the current release. The login and password reset functionality now works as expected in environments without internet connectivity.

Database Upgrade Error When Using Custom Schema

(Case 02906417, SWM-25061)

When migrating FlexNet Operations 2020R1 to 2024R1, a database upgrade error occurred when the database was configured with a custom schema name instead of the default dbo schema.

The upgrade scripts have now been corrected, and the issue has been resolved in this release.

Account and User Management Issues Resolved

The following issue involving the management of accounts was resolved in the 2025 R1 release.

- Users With Expired Accounts No Longer Fail to Update

- Partners Can Now Filter Devices by Account Name and ID in End-User Portal

Users With Expired Accounts No Longer Fail to Update

(Case 02917771, SWM-24640)

In previous releases, when an account was linked to a user whose association with a different account had expired, the account could not be updated. When attempting to update such an account, FlexNet Operations returned an error message. The following example illustrates the scenario in which the error was displayed:

1. The following two end-customer accounts exist: account ACME and account INDIGO.

2. User A is linked to account ACME. The expiry date was set using the Data Import template; and the association between user A and account ACME is set to expire on `January 10`.

3. On `January 28`, you want to link user A to the INDIGO account. This fails with the error message "Expiry date should be either today or after date"

If the user expiry was set via web services or the Producer Portal user interface, and the date has passed, the user could be linked to another account. The problem occurred only when the expiry date was set via the Data Import template.

This issue has now been resolved. Users whose expiry dates are set using the Data Import template are allowed to be linked to other accounts when those expiry dates have passed. If a user is expired on one account, this does not prevent the linking on another account.

Partners Can Now Filter Devices by Account Name and ID in End-User Portal

(Cases 02114107, 02908843; SWM-6311)

Previously, when a channel partner logged in to the End-User Portal and tried to filter the **Devices** page for devices by account ID or account name, the query did not return any devices. This limitation made it difficult for partners to assist their customers with license allocation and troubleshooting.

In the 2025.03 release, this limitation has been addressed, and channel partners can now filter the **Devices** page for devices by account ID or account name.
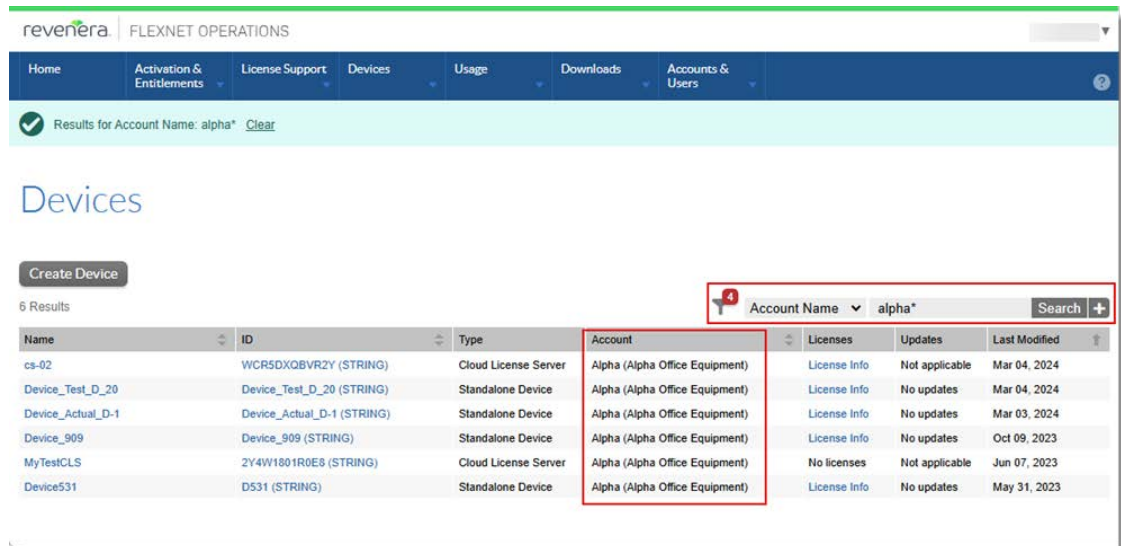
Figure 25: Example screenshot showing filtering devices by account name

Entitlement Management Issues Resolved

The following issues were resolved for entitlement management in the 2025 R1 release.

- Creating Entitlements and Accounts in Offline Environment

- Product and Line Item Description in Email No Longer Showing "<br>" Instead of Line Breaks

- Resolved Issue with Invalid Characters in Entitlement Emails Sent Using Web Services

- Deselecting Boolean Entitlement Custom Attributes With Names Containing More Than 30 Characters

- Displaying License Issue Date in UTC

- Harmonizing the Behavior to Allow Mapping of Expired Line Items

- Updating Start or Expiration Date No Longer Fails When Start Date Option Is Not "Specify Value Now"

- Start Date No Longer Changes When FlexNet Publisher Licenses Are Rehosted

- New Configuration to Limit Device Search to Device Owner

- Automatic Renewal No Longer Causing Spurious Error Message

- Resolved End-User Portal Login Issue

- Bulk Upgrade Jobs With Auto-Fulfill No Longer Failing

- Corrected Wording of Warning Message When Removing Users

- Controlling Behavior When Transferring Entitlements With New Activation ID and Entitlement ID

- Bulk Operations Email Now Includes Entitlement Line Item Custom Attribute Information

- Configuration Option "Show Line Items with Zero Copies by Default" Now Working as Expected

- Transferring Entitlements with Linked Maintenance to New Account

- Changing a Line Item's Start Date No Longer Updates Its Expiration Date

- Offline License Return Requiring Confirmation

- Resolved Error in License Model Creation Process

- Feature Overrides Now Propagated to CLS Instances

- Updates to License Model Attributes Can Be Propagated to Cloud Licensing Service

- Request Button Now Triggering Renewal Email

- Entitlement Line Item Start or Expiry Updated Using "Change Start/Expiration Date" Button Now Reflected on CLS

- Confirmation Step No Longer Skipped During License Count Update

- Restrict Activations on Expired Line Items for FlexNet Publisher Products

- Google reCAPTCHA Challenge Now Displays Complete Set of Pictures, Allowing to Send Entitlement Emails

- Saving a Feature with Space in Version Number Triggers Meaningful Error Message

- Rearranging Features on the Products Page in the Producer Portal

- Filter "Is remaining copies more than zero?" Now Working as Expected in Producer Portal

- Resolved Discrepancy Between Number of Entitlements in End-User Portal and Producer Portal

- Download Now Link in End-User Portal Now Working As Expected

Creating Entitlements and Accounts in Offline Environment

(Case 02906417, SWM-23875)

In the 2024 R1 On-Premises release, an error occurred when attempting to create entitlements and accounts in environments without internet connectivity.

This issue has been resolved. The functionality now works in both online and offline environments.

Product and Line Item Description in Email No Longer Showing "<br>" Instead of Line Breaks

(SWM-20718)

When using the Producer Portal for sending an entitlement email for a product with multiple line items, the line items are now presented on separate lines. Previously, they were erroneously presented in a continuous paragraph, where the line breaks were indicated by <br>.

Resolved Issue with Invalid Characters in Entitlement Emails Sent Using Web Services

(Cases 02745509, 02863731; SWM-18974)

When entitlement emails are sent using the web service operation **emailEntitlement** and the product description contains any line breaks, these line breaks are now reflected as expected in the line item description. In previous releases, line breaks could be rendered as invalid characters when the **HTML Content** section (in the **Email Template Content** section of the Entitlement Email template) contained the [[DESCRIPTION]] merge tag and if the relevant product description included line breaks.

In the 2024.07 release, line breaks are now reflected as expected in the line item description.

Deselecting Boolean Entitlement Custom Attributes With Names Containing More Than 30 Characters

(SWM-20454)

Previously, during entitlement creation, certain custom attributes could not be deselected once the entitlement had been saved. This issue occurred for custom attributes that matched the following criteria:

- Name contains more than 30 characters

- Entity type **Entitlement**

- Type **Boolean**

The issue only occurred when creating and saving an entitlement in the Producer Portal. It did not occur when using web services or the Data Import Template.

This issue has now been resolved.

Displaying License Issue Date in UTC

(Case 02795034, SWM-19471)

By default, the issue date that is returned by the **/features** endpoint is always calculated in Pacific Time. In certain scenarios, this can result in mismatched dates for issued and receivedTime in the **/features** endpoint response.

To avoid these mismatched dates, this release introduces a new configuration **Use UTC timezone for license issue date** (under **System** > **Configure** > **Embedded Devices** > **Host Options**). When the configuration is selected, the issue date of a license is displayed in Coordinated Universal Time (UTC).

Harmonizing the Behavior to Allow Mapping of Expired Line Items

(Case 02814955, SWM-20627)

Previously, the behavior for allowing or denying the mapping of expired line items to a license server was inconsistent.

The following configuration options (under **System > Configure > Embedded Devices > Host Options**) control whether mapping expired line items using web services or activating expired line items using a FlexNet Embedded client is allowed:

- **Allow expired line items to be mapped to devices or servers**—If selected, expired line items can be mapped to a device or server

- **Allow Duration License Decrease** AND/OR **Allow Duration License Decrease for Producer**—If selected, licenses with duration-based features can have their copies reduced by a non-producer

user or a producer, respectively. (Normally, licenses using durations only allow increasing the number of copies.)

The following table specifies whether mapping expired line items using web services or activating expired line items using a FlexNet Embedded client is allowed, depending on the combination of selected configuration options:

Allow expired line items to be mapped to devices or servers	Allow Duration License Decrease AND/OR Allow Duration License Decrease for Producer	Mapping expired line items to server or device (using web services or FlexNet Embedded client)
Unselected	OFF	Not allowed
Selected	OFF	Allowed
Unselected	ON	Not allowed
Selected	ON	Allowed

Updating Start or Expiration Date No Longer Fails When Start Date Option Is Not "Specify Value Now"

(SWM-21795)

Previously, changing the start date and/or expiration date using the **Change Start/Expiration Date** button failed if during entitlement creation, a line item's start date was set to any option other than **Specify Value Now**. The resulting issue depended on the selection for the expiration date:

● If the expiration date is set to **Specify Value Now**, the start date value on the **Configure Line Item** panel is not updated accordingly.

● If the expiration date is set to **Permanent** or **Specify Expiration Date**, FlexNet Operations returns an application error.

This issue no longer occurs.

Start Date No Longer Changes When FlexNet Publisher Licenses Are Rehosted

(Case 02849875, SWM-19963)

When rehosting duration-based FlexNet Publisher licenses with the start date option **Use Each Activation Date**, the start date no longer resets to the date when the rehost operation occurs. Equally, the licenses' end date remains unchanged when they are rehosted.

New Configuration to Limit Device Search to Device Owner

(SWM-20241)

Previously, a search for devices by device owner (account ID or account name) would also return devices that were not owned by the account specified in the search, if the device had add-on license entitlements mapped from the account specified in the search.

This release introduces a configuration called **Limit device search by device owner** (under **System** > **Configure** > **FlexNet Operations** > **Embedded Device Settings**), which allows producers to restrict search results only to devices owned by the account specified in the search.

By default, the option is unselected (preserving the previous behavior, whereby search results can also include devices that are not owned by the account specified in the search but have add-on license entitlements mapped from the account specified in the search).

The configuration option controls the behavior for device searches in the Producer Portal, End-User Portal, and using the `ManageDeviceService` web service.

Automatic Renewal No Longer Causing Spurious Error Message

(SWM-22055)

If a line item is configured to automatically renew, and the **Auto Renew** option is later deactivated, FlexNet Operations no longer erroneously displays an error when changing the expiration date in the **Change Start/Expiration Date** dialog to a new date that would be later than the original renewal expiration date.

Resolved End-User Portal Login Issue

(Case 02779816, SWM-22469)

Previously, users could log in to the End-User Portal using an activation ID from an inactive or obsolete entitlement. This issue no longer occurs, and users can no longer access the portal with such IDs.

Bulk Upgrade Jobs With Auto-Fulfill No Longer Failing

(SWM-21435)

Bulk upgrade jobs that have auto-fulfill set to Yes no longer fail.

Corrected Wording of Warning Message When Removing Users

(Case 02867154, SWM-20939)

When removing an end customer or channel partner from an entitlement, the Producer Portal now displays an appropriate prompt, `Do you want to remove the selected account(s)?`.

Controlling Behavior When Transferring Entitlements With New Activation ID and Entitlement ID

(Case 02549610, SWM-21073)

When transferring an entitlement containing a line item where some line item copies have already been activated and specifying that a new entitlement ID and activation ID are generated, the new account will receive the entitlement with the full amount of line item copies. However, the copies that have previously been activated are still mapped to the previous device and can be used to generate licenses.

To avoid such a scenario, this release introduces a new element to the `EntitlementOrderService` SOAP web service, called **returnRemainingLineItems**, and a new configuration option **Transfer entitlement with remaining quantity only** (under **System** > **Configure** > **FlexNet Operations** > **General Options**), which help producers control the behavior when transferring entitlements with a new entitlement ID and activation ID to another account.

If the configuration option **Transfer entitlement with remaining quantity only** is selected, transferring the entitlement with a new entitlement and activation ID will transfer only the number of undeployed line items.

The **returnRemainingLineItems** setting is used during the transfer of entitlements using SOAP services when the configuration option **Transfer entitlement with remaining quantity only** is selected. If the configuration is unselected, the **returnRemainingLineItems** setting has no impact on the transfer process.

- When **returnRemainingLineItems** is enabled (`true`): During an entitlement transfer, if some line items are already deployed, the remaining undeployed line items will be transferred to the target entitlement.

  Example: Suppose entitlement E1 with activation AC1 has a quantity of 100, and 20 line items have been deployed. If `returnRemainingLineItems` is enabled, the remaining 80 undeployed line items will be transferred to the target entitlement.

- When **returnRemainingLineItems** is disabled (`false`): During an entitlement transfer, if some line items are already deployed, an error message will be returned, indicating that the entitlement cannot be transferred because certain line items are already deployed.

  Example: Suppose entitlement E1 with activation AC1 has a quantity of 100, and 20 line items have been deployed. If **returnRemainingLineItems** is disabled, an error message will be returned as part of the response.

By default, **returnRemainingLineItems** is set to false.

Bulk Operations Email Now Includes Entitlement Line Item Custom Attribute Information

(Case 02884242, SWM-22636)

Entitlement line items that are associated with custom attributes are now displayed as expected in bulk operation notification emails.

Configuration Option "Show Line Items with Zero Copies by Default" Now Working as Expected

(Cases 02553109, 02843547, 02876825, 02905595; SWM-13867)

In previous releases, the End-User Portal displayed line items with zero copies remaining on the **Activatable Items** and the **Manage Entitlements** pages even if the configuration option **Show Line Items with Zero Copies by Default** was unselected, meaning that such line items should be hidden. This has now been resolved, and the option, if unselected, hides line items that have zero copies remaining.

Transferring Entitlements with Linked Maintenance to New Account

(Case 02767923, SWM-20253)

Previously, when transferring an entitlement with a linked maintenance to another account, the linked maintenance was not transferred. Only the entitlement line items for the entitlement were transferred to the new account. This could cause the Product Version Upgrade job to fail.

To address this, release 2025 R1 introduces a new configuration **Transfer maintenance line items from other entitlements** (under **System** > **Configure** > **FlexNet Operations** > **General Options**). If selected, when transferring an entitlement to another account, any maintenance line items are also transferred, if these maintenance line items are linked to a line item belonging to the entitlement being transferred. If the linked maintenance line item is linked to a different entitlement (that is, not the entitlement that is being transferred), the transfer is not performed and an error message is displayed.

By default, the configuration option is unselected (meaning that only the entitlement line items for the entitlement are transferred to the new account).

Changing a Line Item's Start Date No Longer Updates Its Expiration Date

(SWM-22987)

When updating a line item's start date in the **Change Start/Expiration Date** widget, the line item's expiration date is no longer erroneously also updated.

Offline License Return Requiring Confirmation

(Cases 02857961, 02880341, 02900219, 02904405; SWM-20700)

In previous releases, if the configuration option **Skip Confirmation** or **Skip Confirmation for Producer** (under **System > Configure > Embedded Devices** > **License Generation)** was not selected, the system erroneously did not require confirmation for reducing the number of copies via an offline activation request. The capability response included the following parameter:

```
{
"confirmationRequestNeeded" : false
}
```

This issue was addressed in the 2024.10 release. Now, when the option **Skip Confirmation** or **Skip Confirmation for Producer** is unselected, and an offline activation file for reducing license counts is uploaded to FlexNet Operations, the capability response that is subsequently generated and loaded into the local license server will show the following:

```
{
"confirmationRequestNeeded" : true
}
```

Resolved Error in License Model Creation Process

(SWM-22881)

During license model creation, the setting "Is this a counted model" is now working as expected. This means that if it is set to **Yes**, a counted license model is created. Previously, even if "Is this a counted model" was set to **Yes**, the created license model erroneously was uncounted.

Also, the field **isCounted** in the **getLicenseModelIdentifier** operation of the ProductPackagingService web service now shows the correct value.

Feature Overrides Now Propagated to CLS Instances

(SWM-23755)

In previous releases, when changing a substitution value of a feature override for a feature, the changes were not populated to the relevant Cloud Licensing Service (CLS) instances and were not included in the response when calling the **/features** endpoint.

In this release, this issue no longer occurs and feature overrides are propagated to the CLS instances. This fix ensures reliable and consistent license data and simplifies the process of updating and managing licenses, reducing manual errors.

In addition, a new configuration option called **Maximum number of products to be updated following an attribute change** was introduced (under **System** > **Configure** > **FlexNet Operations** > **Embedded Device Settings**). The option enables producers to specify the maximum number of products that should be updated on CLS instances whenever an attribute value for a feature has been changed.

The default setting is 200. Producers who want to specify a higher number should consider that the more products a feature is associated with, the more changes are propagated to CLS instances, which may negatively impact performance.

Updates to License Model Attributes Can Be Propagated to Cloud Licensing Service

(Case 02917977, SWM-23727)

Previously, changes to license model attributes were not propagated to the relevant Cloud Licensing Service (CLS) instance and the devices it served.

The 2024.12 release introduces functionality that enables producers to update license model attributes and have them reflected on existing devices in the field. To allow the propagation of license model attributes, producers must select the newly introduced configuration option **Trigger Product Notifications when License Models are updated** as well as the existing configuration option **Allow Editing of Deployed Entities** (both are located under **System** > **Configure** > **FlexNet Operations** > **General Options**).

Effects on Performance

If **Trigger Product Notifications when License Models are updated** is selected, all devices using a product that is linked to the updated license model are updated. For each affected product, one notification is passed to the Cloud Licensing Service and License Fulfillment Service, which then pass the notification to the device running the product. The large number of notifications sent negatively affects performance of all functionality served by the Cloud Licensing Service and License Fulfillment Service.

Revenera therefore recommends not to select **Trigger Product Notifications when License Models are updated**.

Producers should also note that the updates to license model attributes take time to propagate, especially if they have a large number of products and devices. Depending on the number of products and devices, an update might take 1-5 minutes to be reflected.

Request Button Now Triggering Renewal Email

(Case 02890657, SWM-22556)

On the End-User Portal's **Expiring Entitlements** page, end users can click a **Request** button to send an email message to the producer about their intent to renew selected entitlements.

In previous releases, the End-User Portal failed to send such renewal emails. In the 2025.01 release, this issue has been resolved. When an end user clicks the **Request** button, the End-User Portal sends a renewal email to the email address specified in the configuration option **Request Renewal Notification Email** (under **System** > **Configure** > **FlexNet Operations** > **Renewals**). That email address is also used to populate the **From** field. The end user requesting the renewal will receive receive a copy of the renewal email, as their email address is included in the **Cc** field.

> ⚠
>
> *Important ▪ Renewal emails are sent only if the following conditions are fulfilled:*
>
> - *An email address is specified in the configuration option **Request Renewal Notification Email** (under **System** > **Configure** > **FlexNet Operations** > **Renewals**).*
> - *The email address specified in **Request Renewal Notification Email** has been verified in the Producer Portal on the **Email/Domain Verification** page (available from the **Administer** menu in the **Email** group).*

Entitlement Line Item Start or Expiry Updated Using "Change Start/Expiration Date" Button Now Reflected on CLS

(Case 02913332, SWM-24187)

Previously, when an entitlement was mapped to a Cloud Licensing Service (CLS) instance and one of its line items had its start or expiration date changed using the **Change Start/Expiration Date** button on the **Entitle Customers to Licenses | Create an Entitlement** page (under **Entitlements** > **List Entitlements by Order** > click the entitlement's hyperlinked ID), the new start or expiration date was not reflected on the CLS instance. This means that served clients' subsequent capability requests were not aligned with the new start or expiration date.

This issue no longer occurs. An entitlement line item's changed start or expiration date is now immediately reflected on the mapped CLS instance, and can be viewed as follows:

- On the **View Server** page (**Devices** > **Devices** > click a hyperlinked device name > **View** > **View Response**) in the **Capability Response** section.
- Calling the **/features** endpoint.

Confirmation Step No Longer Skipped During License Count Update

(Case 02912962, SWM-24195)

Previously, when removing line items mapped to a local license server or a standalone device, FlexNet Operations was not enforcing the step where a confirmation of changes is needed before quantities on the device are updated, even though the configuration option **Skip Confirmation** or **Skip Confirmation for Producer** was unselected.

The bug occurred when **Generate Response** was triggered on the **View Server** or **Device** page (under **Devices** > **Devices** > click hyperlinked name of a device), which changed the license status to **License generated** and decreased the license count on the device without waiting for the device to confirm the changes. This bypassed the expected **Waiting for confirmation** status, which should remain until the device explicitly sends a confirmation request.

This has been fixed in the 2025.01 release. Clicking **Generate Response** now changes the license status to **Waiting for confirmation**. The license count is only updated on the device after it has sent a capability request to confirm the changes.

The following table shows the behavior and license status when a user clicks **Generate Response** after a license count change, depending on the selection of the **Skip Confirmation** and **Skip Confirmation for Producer** configuration options.

Skip Confirmation	Skip Confirmation for Producer	Behavior in 2025.01
Unselected	Unselected	Status changes to **Waiting for confirmation**. Once a capability request is sent or uploaded, the status changes to **License generated** and the license count is updated on the device.
Selected	Selected	Status changes to **License generated**. Once a capability request is sent or uploaded in the Producer Portal and the End User Portal, the license count is updated on the device.
Selected	Unselected	Status changes to **License generated**. Once a capability request is sent or uploaded in the Producer Portal or the End User Portal, the license count is updated on the device.
Unselected	Selected	Status changes to **License generated**. Once a capability request is sent or uploaded in the Producer Portal (and optionally in the End User Portal), the license count is updated on the device.

Restrict Activations on Expired Line Items for FlexNet Publisher Products

(Case 02144139, SWM-23877)

Previously, when an end user attempted to activate an expired FlexNet Publisher line item (using web services or the `appactutil` utility) and that line item had previously been activated on a client, the request erroneously succeeded. The reason for this behavior was that FlexNet Operations located the relevant fulfilment record and treated the activation as a reinstall. However, this behavior resulted in clients being able to continue using the software beyond the license expiration date.

To address this issue, FlexNet Operations now checks the line item expiration date before activation. If a line item has expired then the activation request is denied and an error message is shown.

This change applies to all types of activations (online, offline, manually, or via web services). Other license lifecycle operations such as return, repair, or rehost are not affected.

Google reCAPTCHA Challenge Now Displays Complete Set of Pictures, Allowing to Send Entitlement Emails

(Case 02552507, SWM-20758)

In the Producer Portal, if the Google reCAPTCHA challenge is active, the Google reCAPTCHA challenge now displays a complete set of pictures when attempting to send entitlement emails from the **List Entitlements** page.

To send an email from the **List Entitlements** page (under **Entitlements** > **List Entitlements**), select an entitlement and click **Email**. On the next page, click **I'm not a robot**. The Google reCAPTCHA challenge displays a set of pictures and prompts you to select certain pictures to prove that you are human before sending the email.

Previously, some of the pictures were missing, making it impossible for users to complete the challenge and send emails from the **List Entitlements** page (by selecting an entitlement and clicking Email).

The following screenshots show an example of the reCAPTCHA screen with missing pictures and the same page with the fix:

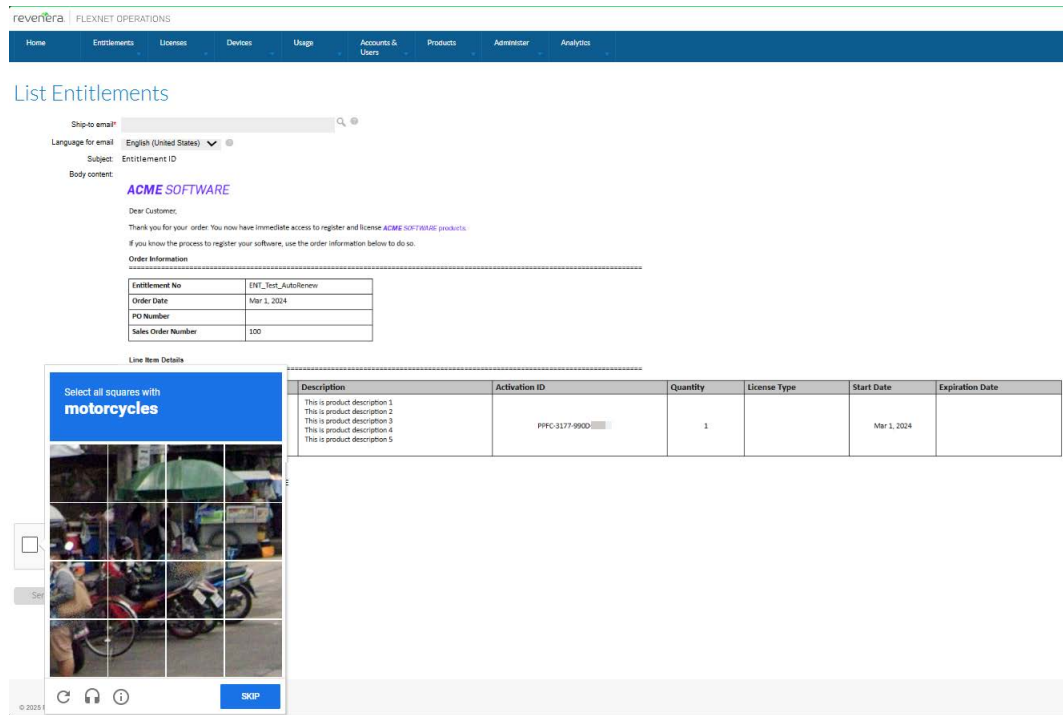**Figure 26:** Entitlement email with corrupted reCAPTCHA panel

Figure 27: Entitlement email with fixed reCAPTCHA panel, showing all pictures.

Note ▪ To use Google reCAPTCHA, the following configuration options must be set:

- *Recaptcha Site key and Recaptcha Secret password (under System > Configure > FlexNet Platform Server > General Options)*
- *Use Recaptcha validation when sending entitlement emails (under System > Configure > FlexNet Operations > General Options) must be selected.*

Saving a Feature with Space in Version Number Triggers Meaningful Error Message

(Case 02990348, SWM-25307)

In previous releases, when a feature was created with the **Version Format Type** set to **Fixed** and the **Version** field included a space (for example, "1.0 "), the feature was created successfully. However, adding such features to a product later failed with the following error message:

```
The version string "2.0  " for feature "TestSpaceInVersionField" is not a valid
FlexNet version: must be <number>.<number> [Incident# 9379-0620915R]
```

To be able to map the feature to a product, producers had to return to the feature and modify the version to remove spaces, which caused frustration and wasted producers' time.

New Behavior

In the 2025.03 release, producers are alerted during the feature creation process that a feature with the **Version Format Type** set to **Fixed** cannot have a version number containing spaces. If a feature's **Version Format Type** is set to **Fixed** and the **Version** field contains a space, upon saving the feature the following error message is displayed:

```
The version format is invalid. Please follow the standard format and avoid any spaces.
```

The following screenshot shows the **Package Products | Create a Feature** page with the red banner and the error message, because the version includes a space ("1.0 "):

Figure 28: The **Package Products | Create a Feature** page with the red banner and error message

Rearranging Features on the Products Page in the Producer Portal

(Case 02858726, SWM-22618)

On the **Products** page (under **Products** > **Product** > click a product name), features and feature bundles (on the **Features** tab) can now be sorted based on the date they were added to the product. By default, they are arranged in ascending order (the oldest feature or feature bundle is displayed at the top of the list). The order can be reversed by clicking the header of the **Feature or Feature Bundle Name** column.

The following screenshot shows the **Feature or Feature Bundle Name** column where the order of features can now be changed.
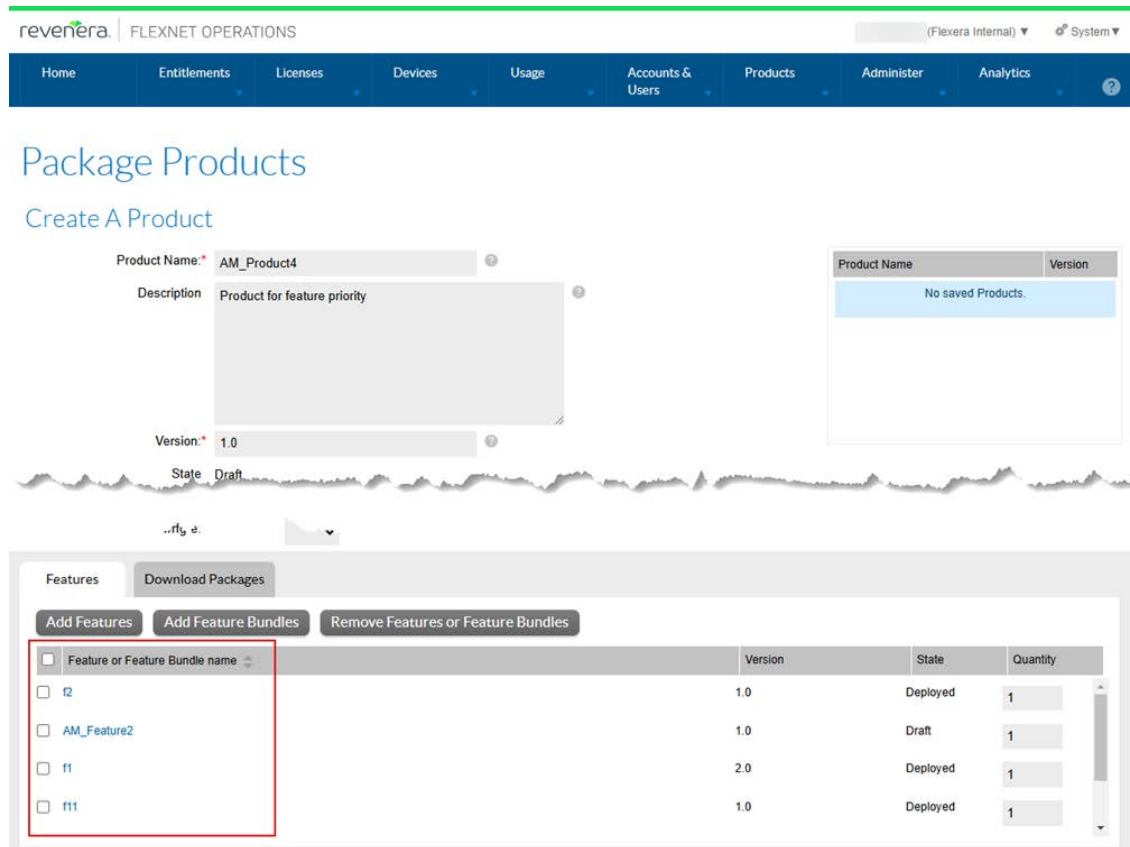
Figure 29: On the **Package Products | Create a Product** page, the order of features can now be changed.

> **Note ▪** When exporting feature information (using either `.jar` or Data Import template (`.xlt`) format), the feature to product linkage is reset to have the timestamp of the import.

Filter "Is remaining copies more than zero?" Now Working as Expected in Producer Portal

(Case 02905595, SWM-25218)

This release resolves an issue with the option **Is remaining copies more than zero?** that is available in the **Advanced search** panel on the **List Entitlements** page. In previous releases, regardless of whether the option was set to **Yes** or **No**, the **List Entitlements** page showed entitlements with copies greater than 0 as well as those with 0 copies.

In the 2025.03 release, the option **Is remaining copies more than zero?** works as expected:

- **Yes**—The **List Entitlements** page shows only entitlements with copies greater than 0.

- **No**—The **List Entitlements** page shows only entitlements with 0 copies.

- **None**—The **List Entitlements** page shows entitlements with copies greater than 0 and those with 0 copies.

The following screenshot shows the option **Is remaining copies more than zero?**:
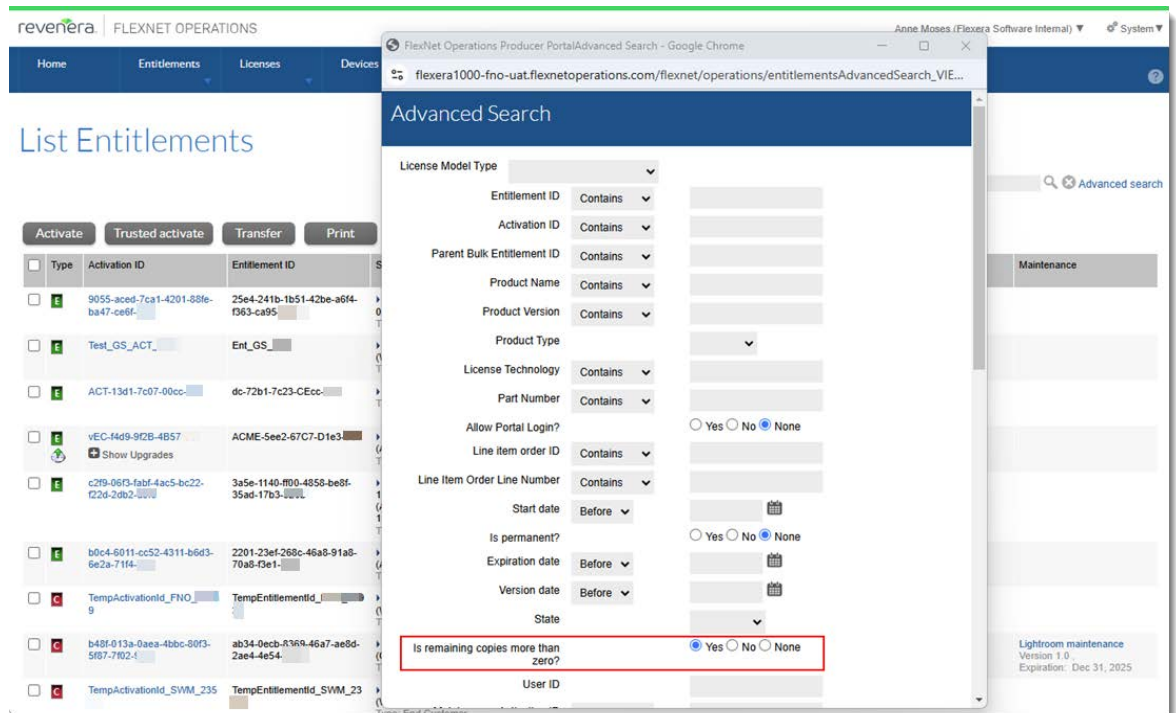
Figure 30: The **Advanced search** panel on the **List Entitlements** page

Resolved Discrepancy Between Number of Entitlements in End-User Portal and Producer Portal

(Cases 02979909, 02553109; SWM-24947, SWM-23317)

Previously, when the configuration option **Show Line Items with Zero Copies by Default** (under **System** > **Configure** > **FlexNet Operations** > **General Options**) is unselected, there was a discrepancy between the number of entitlements listed on the **List Entitlements** page in the Producer Portal and on the **List Entitlements** page in the End-User Portal. The reason was a synchronization issue, which meant that entitlements with an available quantity of zero were erroneously displayed on the **List Entitlements** page in the End-User Portal.

This issue no longer occurs, and the **List Entitlements** page shows the correct number of entitlements in both portals.

Figure 31: The **List Entitlements** page in the Producer Portal shows entitlements with zero available quantity only when the configuration option **Show Line Items with Zero Copies by Default** is selected.

Figure 32: An example of the **List Entitlements** page in the End-User Portal showing entitlements with zero available quantity.

Download Now Link in End-User Portal Now Working As Expected

(Case 02989988, SWM-25688)

In the End-User Portal, download packages could previously not be downloaded from either the **New Versions** or **Previous Versions** tab on the **Download Order** page. (The **Download Order** page is available by selecting **Activation & Entitlements** > **List Entitlements** and clicking the **Download Now** link for an entitlement). Instead of a download link, both tabs showed the error message "There are currently no available downloads defined for your account." However, downloads were indeed available, as confirmed on the **List Downloads** page.

This problem has now been resolved. If a user has an entitlement that has download packages associated, they will be able to download the download packages from the **New Versions** tab.

In addition, expired or archived download packages are now displayed and can be downloaded from the **Previous Versions** tab.
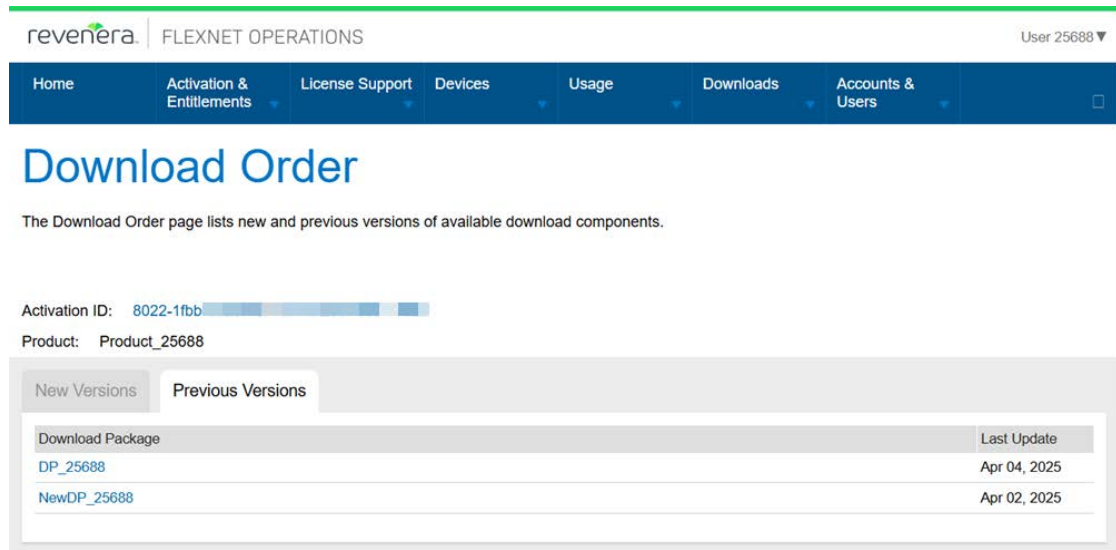
Figure 33: The **Download Order** page now shows expired or archived download packages on the **Previous Versions** tab.

Electronic Software Delivery Issues Resolved

The following issues were resolved for Electronic Software Delivery (ESD) in the 2025 R1 release.

- DownloadPackagingService Web Service No Longer Returning Duplicate Results
- Resolved Display Issues for Download Packages and File Notifications
- Note in Import Data Template for Entitlement Management Now Showing Warning
- Improved Bulk Upgrade Job Performance
- Download Package Search No Longer Returns Duplicate Counts
- Uploading New File Versions Will Update Existing Content

DownloadPackagingService Web Service No Longer Returning Duplicate Results

(Case 02853877, SWM-19967)

The **getDownloadPackageQuery** operation of the `DownloadPackagingService` web service no longer returns duplicate values if a download package has multiple values set for a multi-value text custom attribute. This fix applies to all versions of the `DownloadPackagingService` web service.

Resolved Display Issues for Download Packages and File Notifications

(Case 02817693, 02820710; SWM-19544)

Previously, when navigating to pages related to Electronic Software Delivery functionality (download packages and file notifications), the `?authtype=external` parameter was not appended to the URL. As a result, some UI elements (**Create Email** button, check boxes for selecting packages) were not displayed properly. This issue no longer occurs.

Note in Import Data Template for Entitlement Management Now Showing Warning

(SWM-23642)

The note for the **ActivationId** and **ActivationState** columns in the Entitlement Management template Excel file (on the **Create-Update Entitlement** and **Create-Update MaintenanceLine** sheets) now warns against deleting these columns to prevent unwanted behavior.

Note ▪ Users need to be aware that even though providing a value is optional, they should not delete these columns because doing so means that no line items are created in FlexNet Operations. For more information about the import behavior when deleting the columns, refer to the FlexNet Operations User Guide, section Using Data Import Templates.

Improved Bulk Upgrade Job Performance

(SWM-23963)

The execution time of bulk upgrade jobs has been reduced.

Download Package Search No Longer Returns Duplicate Counts

(Case 02988915, SWM-25228)

When retrieving download package counts using the **getDownloadPackageCount** operation of the DownloadPackagingService web service or using the **Search Download Packages** page in the Producer Portal, the query could return incorrect counts. This issue occured in the following scenarios:

● The **getDownloadPackageCount** operation returned an incorrect count if a download package had multiple values set for a multi-value text custom attribute.

● The **Search Download Packages** page returned duplicate values when searching for a download package using a wildcard character (*) in a custom attribute.

Figure 34: Previously, using a wildcard (*) in a custom attribute when searching for download packages could cause the Producer Portal to return duplicates.

This issue has now been resolved. The fix for the **getDownloadPackageCount** operation applies to all versions of the DownloadPackagingService web service.

Uploading New File Versions Will Update Existing Content

(Cases 02225917, 02567912, 02680773, 02834194, 02918066, 02918272, 02995536, 03003837, 03008991; SWM-19909)

Previously, when uploading a new version of a file (or package) whose previous version existed in the Software Delivery system, it was recommended to use a new file name. This best practice prevented the delivery of "stale" file content to customers, because uploading a new file with the same file name would not reliably overwrite the existing file.

Now, you can upload new content using an existing file name, which will replace the existing content.

Export and Import Issues Resolved

The following issues related to the Data Export and Import functionality were resolved in the 2025 R1 release.

- End-Users No Longer Denied Access After Importing Entitlements When "Allow Portal Login" Column Deleted

- Resolved Issue with Import and Export of Bulk Entitlements

- Resolved Issue with Data Import Template

- Import/Export Jobs Terminated Upon Job Server Restart

- Import/Export Jobs No Longer Getting Stuck on Job Server Restart

- Retriggering Stuck Jobs for Bulk Upgrade Operations

- Account Data Export

End-Users No Longer Denied Access After Importing Entitlements When "Allow Portal Login" Column Deleted

(SWM-20500)

When the **AllowPortalLogin** column on the **Create-Update Entitlement** sheet in the Entitlement Management template has been deleted, the end customer is now allowed to log into the End-User Portal using the entitlement ID or activation ID. Previously, access was erroneously denied.

Resolved Issue with Import and Export of Bulk Entitlements

(SWM-21129)

Importing and exporting data using the **Create-Update Entitlement** and **Create-Update BulkEntitlement** sheets in the Entitlement Management template no longer fails if the data includes custom license model attributes of type **Multi-valued text** which contain no values.

Resolved Issue with Data Import Template

(Case 02775871, SWM-21434)

When exporting a set of entities as a **Data Import Template** file, the **Data Import Template** for **Selected Items** now pulls the correct value as given in the line item detail for the License Model Custom Attribute set during entitlement time. For example, if the License Model Custom Attribute name is **Return_Allowed**, which is set to false upon updating or creating a line item during entitlement time, the same value is reflected in the **Data Import Template** file upon downloading.

Import/Export Jobs Terminated Upon Job Server Restart

(Cases 02820494, 02818923, 02823312, 02823629, 02842880; SWM-19548)

In this release, any import/export jobs and bulk operation jobs that hang when the job server is restarted are terminated, and the following error message is displayed: `Job Server was restarted. Please submit the job again.`

This fix removes the lock on the scheduler to prevent follow-up jobs from getting stuck and enables customers to identify and resubmit jobs that failed due to a restart.

Import/Export Jobs No Longer Getting Stuck on Job Server Restart

(Cases 02874418, 02902735, 02909549; SWM-21535)

In previous releases, when an import/export job was running and at the same time the job server was restarted, the job was stuck in the "in Process" state and never completed until it was resubmitted.

This behavior was problematic, because producers had to resubmit those stuck import/export jobs, which took up extra time.

This has now been resolved. If an import/export job is in process while a job server restart occurs, that job will be moved to a waiting state so that the next run can pick it up. Producers no longer need to manually resubmit the hanging job.

Retriggering Stuck Jobs for Bulk Upgrade Operations

(Case 02969947, SWM-24096)

In the past, jobs for bulk upgrade operations could get stuck with the status "Submitted" or "In Progress". There was no indication of whether the job was running. Restarting the job server had no impact on the job; it would remain stuck. The only solution for producers was to manually retrigger the job.

This issue has now been resolved. If a job for a bulk upgrade operation gets stuck, restarting the job server triggers a new job which will pick up the work from the original job. This new job is scheduled to run within 2 minutes of the server restart.

Account Data Export

(Cases 03030706, 03032924; SWM-26609)

In this release, the functionality for exporting accounts information has been restored.

In its **Export** menu, the **Manage Accounts** page (available from **Accounts & Users** > **All Accounts**) now shows the correct option, **Data Import Template**. Clicking **Export** > **Data Import Template** triggers an export job, which creates a downloadable Data Import Template (.xlt) file containing the relevant entities.

The image below shows the option **Data Import Template** which is used to export accounts information:
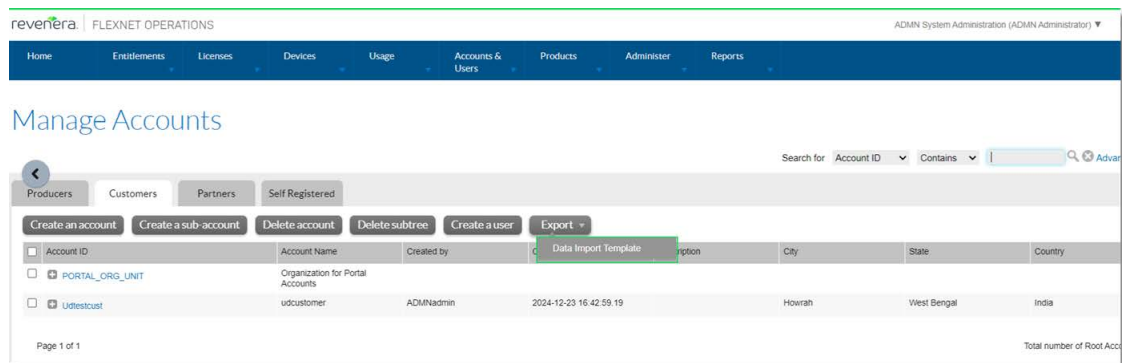
Figure 35: The **Export** menu now contains the correct option, **Data Import Template**, for exporting accounts information.

Previously, in its **Export** menu, the **Manage Accounts** page showed the options **Selected Items** and **Selected Items with Their Dependencies**, which had no underlying functionality (`.`JAR export is not available for accounts and users).

Device Management Issues Resolved

The following issue with device management was resolved in the 2025 R1 release.

Replacing Control Characters in Device Names

(Cases 02845338, 02845338; SWM-21484, SWM-22488)

This resolved issue is a continuation of the issue Devices Page Now Loading Correctly When Device Name Includes Invalid Control Characters that was addressed in the 2023 R1 release. For more information, see the FlexNet Operations 2023 R1 On-Premises Release Notes that are available on the Revenera Product Documentation site.

Previously, when a device was created using a capability request and the "Device ID" or "Alias" field contained a control character, the **Devices** page did not load as expected. As part of the initial fix, made in the 2023 R1 release, control characters in the "Device ID" or "Alias" field were replaced with an **empty** string (for example, the device name Test^BName was saved as TestName).

The behavior is controlled by the configuration option **Retain Non-Printing Characters in Device ID and Alias** (located under **System** > **Configure** > **Embedded Devices** > **Host Options**), introduced in 2023 R1.

As an unintended consequence of this change, if an invalid character was used in the "Device ID" or "Alias" field and subsequently replaced by an empty string by FlexNet Operations, the license was not processed by the FlexNet Embedded toolkit.

To fix this, in the 2025 R1 release, all control characters are replaced with their respective **hexadecimal** values if the configuration option **Retain Non-Printing Characters in Device ID and Alias** is unselected (the default setting). For example, the device name Test^BName will be saved as Test&#x2;Name.

Here is a list of the control characters that will be replaced with a hexadecimal string if **Retain Non-Printing Characters in Device ID and Alias** is unselected:

^B, ^D, ^E, ^G, ^N, ^O, ^P, ^Q, ^R, ^S, ^T, ^U, ^W, ^X, ^Y, ^[, ^\, ^], ^F, ^C, ^^, ^A, ^V, ^_

The following table shows examples of control characters and their referenced hexadecimal values:

Control Character in Caret Notation	Symbol Code	Hexadecimal Code
^F	ACK("\u0006" (CTRL+F))	&#x6;
^C	ETX("\u0003"(CTRL+C))	&#x3;
^^	RS("\u001e" (CTRL+~))	&#x1e;
^A	SOH("\u0001" (CTRL+A))	&#x1;
^V	SYN("\u0016 " (CTRL+V))	&#x16;
^_	US("\u001f "(CTRL+?))	&#x1f;

Changed Behavior of Configuration Option Controlling the Character Replacement

The 2023 R1 release introduced the configuration option **Retain Non-Printing Characters in Device ID and Alias** (located under **System** > **Configure** > **Embedded Devices** > **Host Options**). Note the following changes in behavior since the 2023 R1 release:

● When **Retain Non-Printing Characters in Device ID and Alias** is selected: Any control characters in the "Device ID" or "Alias" field are retained when the device is created. This behavior is the same

in 2023 R1 through 2025 R1. Customers should note that in this case, if the "Device ID" or "Alias" field contains an invalid character, the **Devices** page will not load correctly.

- When **Retain Non-Printing Characters in Device ID and Alias** is `unselected`:

    - **Behavior in 2023 R1 and 2024 R1:** Control characters in the "Device ID" or "Alias" field are replaced with an empty string.

    - **Behavior in 2025 R1:** Control characters in the "Device ID" or "Alias" field are replaced with their respective hexadecimal values.

Note that by default, **Retain Non-Printing Characters in Device ID and Alias** is unselected.

SOAP and REST Web Services Issues Resolved

The following issues related to FlexNet Operations Web Services were addressed in the 2025 R1 release.

- Updating Line Item Quantity with EntitlementOrderService v7 No Longer Failing

- GetProductCategories Now Returning Product Line Attributes

- Resolved Issue With Recording CREATE Events

- SOAP Operation getLicenseModelIdentifiers Now Returning License Model

- getEntitlementsQuery and getEntitlementCount Operations Strictly Adhering to expirationDate Parameter

- Activation ID Updates Using EntitlementOrderService Web Service Only Allowed in Draft State

Updating Line Item Quantity with EntitlementOrderService v7 No Longer Failing

(Case 02872466, SWM-21506)

Attempting to update the total quantity (**numberOfCopies** parameter) of a line item using the **createSimpleEntitlement** operation with an opType of CREATE_OR_UPDATE no longer results in a stack overflow error. This issue previously occurred for the `EntitlementOrderService` SOAP web service, version 7.

GetProductCategories Now Returning Product Line Attributes

(Cases 01964245, 02502505; SWM-21024)

In the `ProductPackagingService` web service, the **getProductCategories** operation now returns the product line attributes if the product is associated with a product line.

Sample Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:urn="urn:v3.webservices.operations.flexnet.com">
    <soapenv:Header/>
    <soapenv:Body>
        <urn:getProductCategoriesRequest>
            <!--Optional:-->
```

```
            <urn:pageNumber>1</urn:pageNumber>
            <urn:batchSize>10</urn:batchSize>
            <urn:returnContainedObjects>true</urn:returnContainedObjects>
        </urn:getProductCategoriesRequest>
    </soapenv:Body>
</soapenv:Envelope>
```

Sample Response

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance">
    <soapenv:Body>
        <getProductCategoriesResponse xmlns="urn:v3.webservices.operations.flexnet.com">
            <statusInfo>
                <status>SUCCESS</status>
            </statusInfo>
            <responseData>
                <productCategory>
                    <name>ALL</name>
                    <description>ALL</description>
                </productCategory>
                <productCategory>
                    <name>ProductLine</name>
                    <description>ProductLine</description>
                    <categoryAttributes>
                        <categoryAttribute>
                            <attributeName>ProductLineAttribute1</attributeName>
                            <isRequired>true</isRequired>
                            <dataType>BOOLEAN</dataType>
                        </categoryAttribute>
                        <categoryAttribute>
                            <attributeName>ProductLineAttribute2</attributeName>
                            <isRequired>true</isRequired>
                            <dataType>TEXT</dataType>
                            <maxLength>128</maxLength>
                        </categoryAttribute>
                    </categoryAttributes>
                </productCategory>
                <productCategory>
                    <name>Uncategorized Products</name>
                    <description>Uncategorized Products</description>
                </productCategory>
            </responseData>
        </getProductCategoriesResponse>
    </soapenv:Body>
</soapenv:Envelope>
```

Resolved Issue With Recording CREATE Events

(SWM-21703)

Previously, when an entitlement was created using the SOAP web service request
createSimpleEntitlement and autoDeploy was set to true, the CREATE event type was not listed on
the **Search Transactions: Results** page for entitlements.

This issue no longer occurs and all event types are displayed on the **Search Transactions: Results** page.

SOAP Operation getLicenseModelIdentifiers Now Returning License Model

(Case 02880643, SWM-21742)

The **getLicenseModelIdentifiers** operation of the `ProductPackagingService` web service now returns the license model as expected. Previously, it returned a null value even if the license model existed in FlexNet Operations.

getEntitlementsQuery and getEntitlementCount Operations Strictly Adhering to expirationDate Parameter

(Case 02905739, SWM-23097)

In previous releases, the search parameter `expirationDate` in the **getEntitlementsQuery** and **getEntitlementCount** operations of the `EntitlementOrderService` web service also returned entitlements containing line items where the expiration was specified as a duration, and where such line items had not yet been activated.

In the 2025 R1 release, such searches using `expirationDate` return only entitlements that strictly match the specified expiration dates.

If none of the line items in an entitlement meet the criteria for `expirationDate` or have an empty expiration date, then such entitlements will not be returned.

Examples

When `<urn:expirationDate>` is passed in the request, at least one of the line items for an entitlement must strictly match the search type for that entitlement to be returned in the response.

expirationDate with searchType ON

The following search criteria return only entitlements that have at least one line item with the expiration date **2024-01-30**.

```
<urn:expirationDate>
    <urn:value>2024-01-30</urn:value>
    <urn:searchType>ON</urn:searchType>
</urn:expirationDate>
```

expirationDate with searchType AFTER

The following search criteria return only entitlements that have at least one line item with the expiration date later than **2024-01-30**.

```
<urn:expirationDate>
    <urn:value>2024-01-30</urn:value>
    <urn:searchType>AFTER</urn:searchType>
</urn:expirationDate>
```

Activation ID Updates Using EntitlementOrderService Web Service Only Allowed in Draft State

(Case 02180694, SWM-22403)

Previously, the **updateEntitlementLineItem** method in the `EntitlementOrderService` allowed producers to change the activation ID of an entitlement in a deployed state. This behavior was inconsistent with the Producer Portal UI which did not allow such a change.

Starting in 2025 R1, the activation ID of an entitlement can only be changed if the line item is in a draft state, and this behavior is consistent with the Producer Portal UI.

Security Issues Resolved

The following issues related to FlexNet Operations security were addressed in the 2025 R1 release.

- Security Fixes Related to FlexNet Embedded . JAR Files

- Security Fixes Related to Apache Tomcat

- Improved Handling of Potentially Sensitive URLs

- Enforced Authentication in Public Services API

- Fixed Insecure Direct Object Reference Vulnerability in End-User Portal

- Enforcing Account Access Permissions for Portal Users

- Improved Error Handling for Status 500 Errors

- Upgraded Chart.js

Security Fixes Related to FlexNet Embedded . JAR Files

(Cases 02263480, 02263480, 02545209, 02578008; SWM-14175)

We have addressed several security vulnerabilities identified in the National Vulnerability Database (NVD). The following CVEs have been fixed in this release by using the latest .JAR files from FlexNet Embedded:

- CVE-2019-1543 (CVSS 7.4)

- CVE-2019-1551 (CVSS 5.3)

- CVE-2019-1549 (CVSS 5.3)

- CVE-2019-1563 (CVSS 3.7)

- CVE-2019-1547 (CVSS 4.7)

- CVE-2019-1552 (CVSS 3.3)

Security Fixes Related to Apache Tomcat

(SWM-24993)

Apache vulnerabilities were identified in FlexNet Operations 2024 R1 on-premise. These have been addressed in FlexNet Operations 2025 R1 on-premise by upgrading Apache Tomcat to version 9.0.104. The following vulnerabilities were resolved:

- CVE-2024-34750 (CVSS 7.5)—Fixed in Apache Tomcat version 9.0.90

- CVE-2025-24813 (CVSS 9.8)—Fixed in Apache Tomcat version 9.0.99

Improved Handling of Potentially Sensitive URLs

(Case 02916672, SWM-23701)

During a security scan, the following URLs were identified as potentially exposing sensitive information in FlexNet Operations On-Premises:

- `/flexnet/%2522ns%253D%2522netsparker%25280x00011F%2529`

- `/flexnet/c%3a%5cboot.ini`

- `/flexnet//r87.com/.html`

To address this, all listed URLs now redirect to the login page, with the exception of `/flexnet/c%3a%5cboot.ini`. Previously, accessing this URL resulted in a 500 Internal Server Error with visible error details. This has been resolved by implementing proper exception handling, and the request now redirects to the `sitedown.html` page:
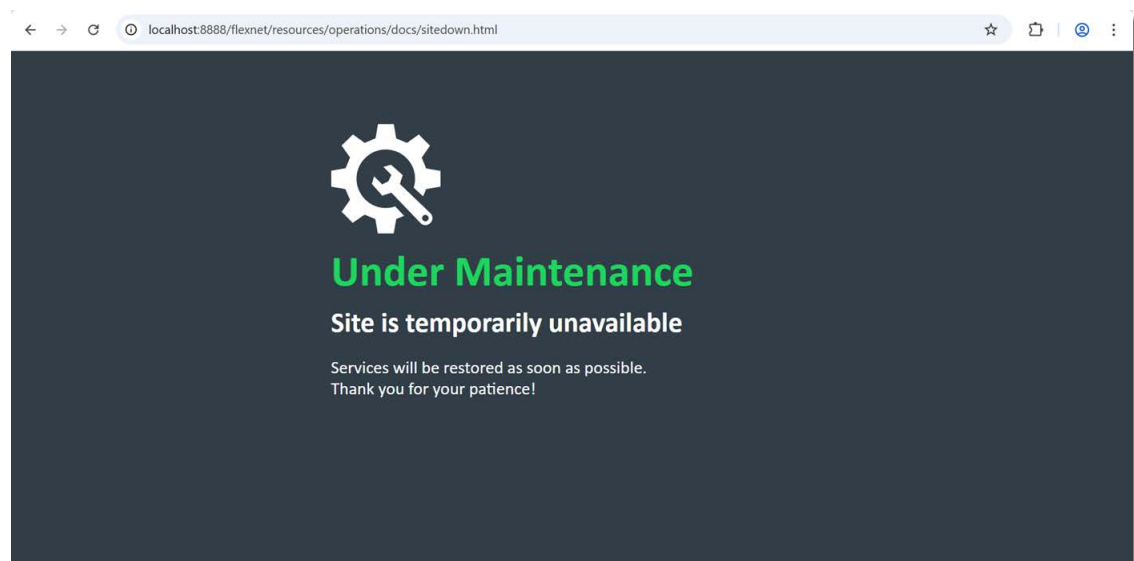
Figure 36: Under Maintenance page (`sitedown.html`) displayed when trying to access the URL `/flexnet/c%3a%5cboot.ini`.

Resolved XXE Vulnerability in Public Services API

(Case 03287621, SWM-27698)

Revenera has addressed an unauthenticated XML External Entity (XXE) vulnerability in its public services APIs that previously allowed unauthorized access to server files through specially crafted XML requests.

Enforced Authentication in Public Services API

(SWM-22672)

Flexnet Operations has a public API hosted at the following URLs:

- `https://<site-id>.flexnetoperations.com/flexnet/pubservices/lineitemdetails`

- `https://<site-id>.flexnetoperations.com/flexnet/pubservices/entitlementdetails`

- `https://<site-id>.flexnetoperations.com/flexnet/pubservices/registeruser`

- `https://<site-id>.flexnetoperations.com/flexnet/pubservices/mapentitlement`

Previously, these endpoints could be accessed without any sort of authentication, which is now categorized as a security flaw. In line with modern security practices, these API endpoints now require authentication.

To ease the transition to enforced authentication, the 2024.10 release introduces the configuration **Enable authentication for Public Webservices** (under **System** > **Configure** > **FlexNet Operations** > **General Options**). By default, the option is selected and authentication is enforced. Producers who need time to adjust and do not want to enforce authentication for a transition period can unselect the option.

However, Revenera recommend that producers change their systems to enable authentication at the earliest. The **Enable authentication for Public Webservices** configuration option will be removed in a future release to avoid security exposure and authentication will be fully enforced.

Fixed Insecure Direct Object Reference Vulnerability in End-User Portal

(Case 02889128, SWM-22283)

Unauthorized users can no longer navigate to the **Edit Account** page (which shows account details) of an account that they do not belong to by changing the ID in the URL of the End-User Portal.

Enforcing Account Access Permissions for Portal Users

(SWM-25459)

Previously, users with the Portal User role could access information that they are not entitled to see, by manipulating URL parameters.

In the 2025 R1 release, it is no longer possible to access information without the necessary permissions, by manipulating URL parameters.

Improved Error Handling for Status 500 Errors

(Case 2889182, SWM-22287)

Previously, status 500 errors could reveal the server hostname in the fault details of the response, which is considered a security risk. Such an error could be triggered by sending a bad request using web services—for example, by attempting to update a user with a typo in the request, like `<urn:lastNam>?</urn:lastName>`.

This issue has now been addressed, and status 500 errors no longer reveal implementation details.

Upgraded Chart.js

(Case 02999121, SWM-25776)

The Chart.js library has been upgraded to version 2.9.4 to address potential security vulnerabilities.

User Experience Issues Resolved

The following issues involving user experience were resolved in the 2025 R1 release.

- Announcements Not Visible on End-User Portal Home Page
- Duplicate Configuration Options After Upgrade
- Sorting Licenses Table on Device Page
- Resolved Date Format Issue in Served Devices Data Extract
- Avoiding Consolidation Error in End-User Portal
- Sorting Licenses Table on Devices Page in End-User Portal
- Confirmation Message for Configuration Changes
- Configuration Changes Now Updated After Saving
- Increased Download Speed in End-User Portal
- Updated Link to Customer Community
- Removed Truncation in End-User Portal on View Server Page
- System Roles No Longer Visible in Portals
- Resolved Issue of Incorrectly Formatted Page in End-User Portal

Announcements Not Visible on End-User Portal Home Page

(Case 02991834, SWM-25522)

The **Announcements** section on the Home page of the End-User Portal did not display any content, despite announcements being configured.
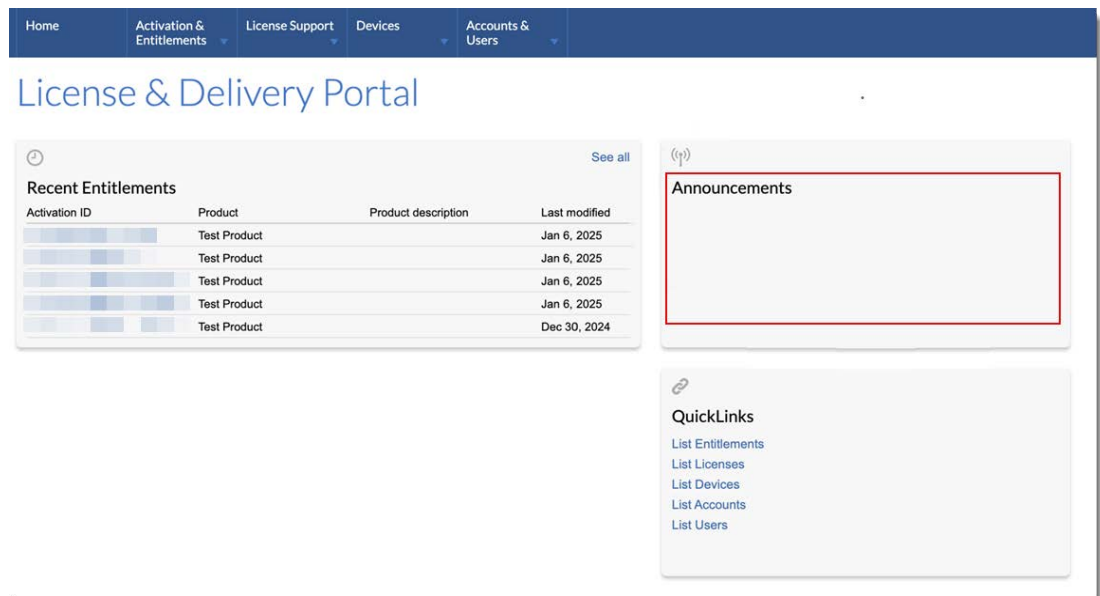
Figure 37: Empty **Announcements** section in the End-User Portal.

This issue has been resolved in the 2025 R1 release.

Duplicate Configuration Options After Upgrade

(Case 02841988, SWM-25848)

Following an upgrade from FlexNet Operations On-Premises 2021 R1 to 2024 R1, some users observed duplicate configuration entries appearing in the system, as shown in the following screenshot:
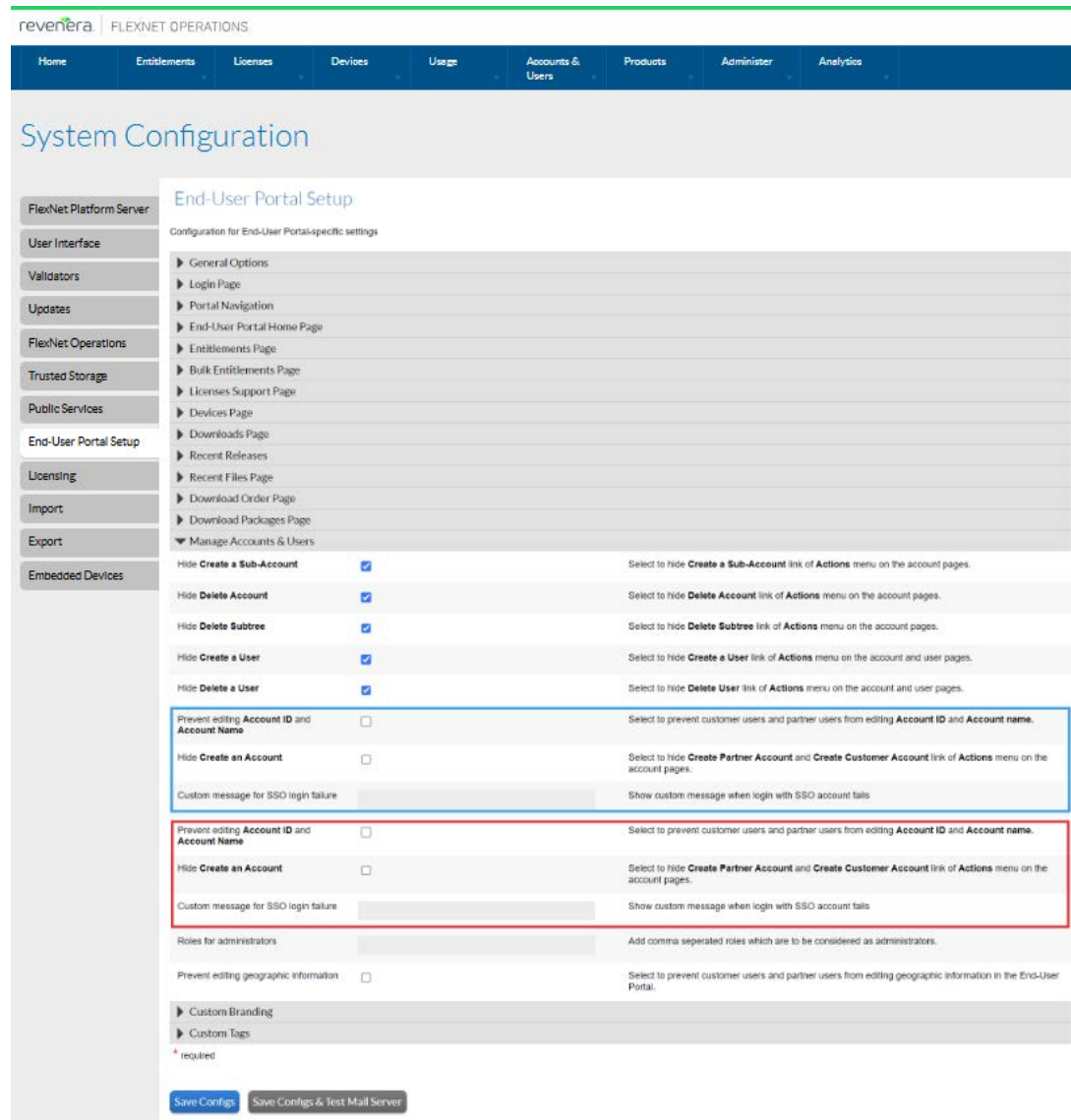
Figure 38: Duplicate options on the **System Configuration** page

This issue has been resolved. In the latest release, configuration data will no longer be duplicated during the upgrade process.

Sorting Licenses Table on Device Page

(SWM-22619)

On the **View Server** or **Device** page in the Producer Portal, the **Licenses** table can now be sorted by **Expiration** or **Expiration Status** using the toggle icon in the column header. Also, the headers of the **Expiration** and **Expiration Status** columns are now properly aligned.

Resolved Date Format Issue in Served Devices Data Extract

(SWM-22841)

The Served Devices Data Extract now shows the correct expiration dates.

### Avoiding Consolidation Error in End-User Portal

(Case 02234869, SWM-21264)

When end users are consolidating line items and the list contains inactive line items, the inactive line items are automatically ignored. This means that inactive line items are no longer causing consolidation errors, improving the overall user experience.

Sorting Licenses Table on Devices Page in End-User Portal

(SWM-22619)

Previously, on the **View Server** or **Device** page in the End-User Portal, none of the columns of the **Licenses** table could be sorted.

Now, the **Licenses** table can be sorted by **Expiration** or **Expiration Status** using the toggle icon in the column header for all types of devices. Also, the headers of the **Expiration** and **Expiration Status** columns are now centered vertically.

Confirmation Message for Configuration Changes

(SWM-22817)

When changing any configuration (under **System** > **Configure**), the Producer Portal now shows a confirmation message: The configuration was updated successfully.

Previously, such a confirmation message was only displayed when changing a configuration value in the section **Embedded Devices** > **Host Options**.

Configuration Changes Now Updated After Saving

(SWM-22817)

In previous releases, when changing a configuration setting under **Embedded Devices** (under **System** > **Configure**) and clicking **Save Configs**, the previous setting (either the previous value or selected/unselected state of the check box) was still shown. The updated setting was only visible after clicking **Save Configs** a second time. In addition, after saving changes, the confirmation message "The configuration was updated successfully" was formatted differently to other FlexNet Operations confirmation messages (using a white background instead of a blue banner).

Both issues have been resolved in the 2025.01 release. Changes to configuration settings are now saved and visible after clicking **Save Configs** once, and the confirmation message is formatted as a blue banner.

Increased Download Speed in End-User Portal

(Case 02776698, SWM-19906)

In the End-User Portal, end users associated with several accounts can now download content more quickly. The syncing process has been optimized, allowing users to access downloads shortly after their accounts and entitlements are provisioned.

Updated Link to Customer Community

(SWM-24485)

Following the recent introduction of the new Revenera Community, the link **Customer Community** (available in the Producer Portal from the **System** menu) has been updated to point to the Community's new URL, https://community.revenera.com.
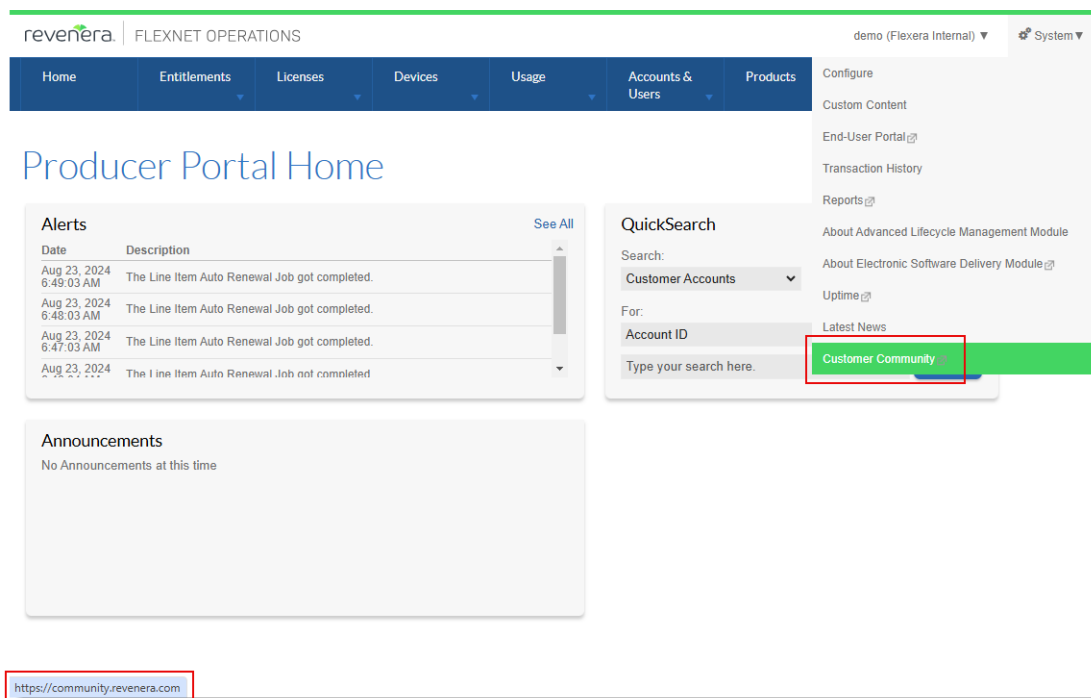
Any users attempting to access the previous URL, http://flexeracommunity.force.com/customer/, will be redirected to the new URL.

Removed Truncation in End-User Portal on View Server Page

(Case 02981114, SWM-24922)

Previously, the menu options available from the **View** menu on the **View Server** page in the End-User Portal were truncated on the left side of the screen and not readable. To access the **View Server** page, click **Devices** > **Devices**, then click the hyperlinked name or ID for a server (Cloud License Server instance or local license server).

The following screenshot shows the fixed menu of the **View Server** page, with the menu options fully visible:
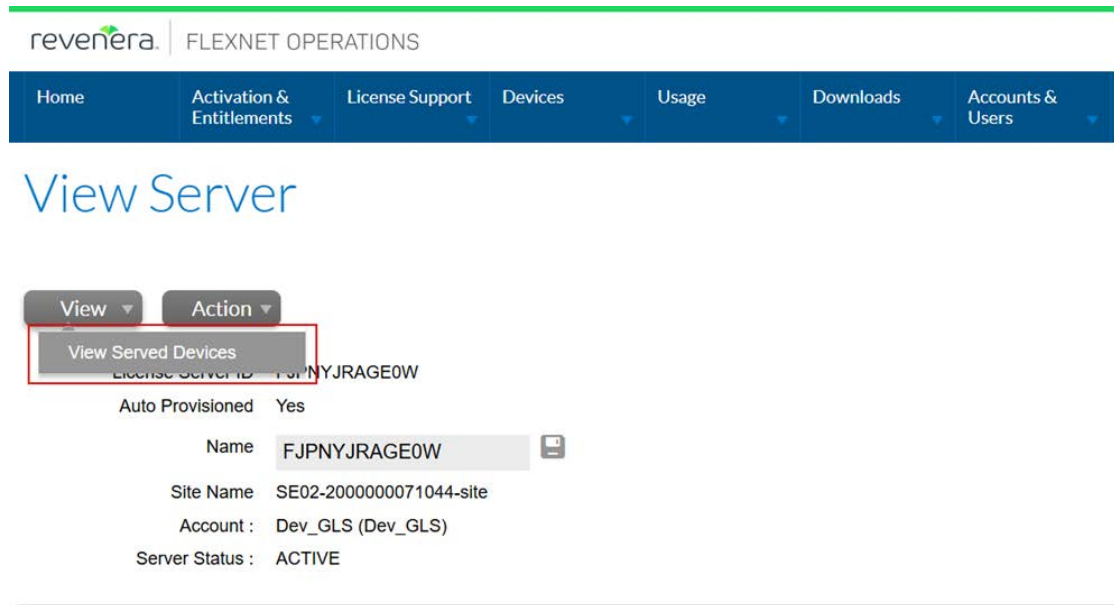
System Roles No Longer Visible in Portals

(Cases 03009399, 03009414, 3011796; SWM-26277)

The system roles **Default Producer Role** and **Manage Impersonated Access Tokens PP**, and **Default Portal Role** and **Manage Impersonated Access Tokens EP** are no longer visible in the Producer Portal and the End-User Portal, respectively.

These roles are not intended for selection by producers or end users. To avoid that they are mistakenly assigned they are now hidden from the Producer Portal and End-User Portal.

*Note ▪ The roles **Manage Impersonated Access Tokens PP** and **Manage Impersonated Access Tokens EP** contain permissions for issuing so-called impersonated access tokens, which are a means to securely authorize SOAP and REST web service calls to FlexNet Operations. While the term "impersonated" might sound concerning, it simply refers to a mechanism where a privileged user can securely act on behalf of another user with limited permissions.*

Resolved Issue of Incorrectly Formatted Page in End-User Portal

(Case 02411062, SWM-26279)

In the End-User Portal, when associating an existing user to an account, the page for selecting users was not correctly formatted.

The issue could be seen by following these steps:

1. Click **Accounts & Users** > **List Accounts**.

2. On the **Accounts** page, click a hyperlinked account ID.

3. In the **Account Users** section, click **Actions** > **Link existing users**.

4. Click the pagination arrow to see the next set of users.

5. You will see the page with formatting issues:

- -
-
- Page [2] of 2
-
-

Display name ▾	Contains ▾

Advanced Search

☐	**Display name**	**User name**	**Email address**	**Type**		**Role**	
☐	User Name	newuser@mycompany.com	newuser@mycompany.com User	☐ End User	☐ Generate License
				☐ Portal Admin User Role	☐ Integration
				☐ Branding test	☐ Portal User Role
				☐ End User	☐ Technical Support
				☐ Portal Admin	☐ WS End User
				☐ Portal no Announcements	☐ Custom Role2

OK Cancel

This issue no longer occurs.

Known Issues

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

SWM-26718: Custom Logo Not Displayed in End-User Portal "View Server" or "Device" Page

In the End-User Portal, the **Device** or **View Server** page (available from the **Devices** menu) does not display a custom logo (if a custom logo has been specified). Instead, these pages display the Revenera logo and "FlexNet Operations" product name, as shown in this screenshot:

Customers who experience this issue can contact Revenera support who can implement a workaround until the problem has been resolved.

Note ▪ Producers can upload an image file to serve as custom logo in the End-User Portal using the ***Upload Company Logo*** *configuration option (under* ***System*** *>* ***Configure*** *>* ***End-User Portal Setup*** *>* ***Custom Branding****).*

SWM-26045: Using Incorrect Country Codes in createUser API

Revenera identified an issue with the **createUser** API of the `UserAcctHierarchyService` web service that impacts users created without a supported country code. In such cases, the **createUser** API assigns a default country code, which results in incorrect data. These users are not synced with the Electronic Software Delivery (ESD) system and are therefore unable to access their software downloads in the End-User Portal.

For example, if "US" is the required country code and an unsupported variant like "USA" is provided, the API will successfully create the user but assign an incorrect default country code instead of "US." As this process does not return an error, customers may be unaware of the discrepancy. Consequently, the affected user is not properly synced with the ESD system and is unable to access downloads.

To avoid interruptions in software delivery access, Revenera strongly recommends using only supported country codes when calling the **createUser** API.

SWM-23586: Hanging Bulk Operation Jobs Not Showing "Failed" Status

A fix made in the 2024.11 release (see description Import/Export Jobs Terminated Upon Job Server Restart) has been reverted for bulk operations. The fix remains in place for import/export jobs.

This means that any bulk operation jobs that hang when the job server is restarted are not terminated and are not automatically retriggered.

SWM-19547: Download Search Page in End-User Portal Not Filtering Expired Accounts

In the End-User Portal, on the **Download Search** page (available from **Downloads** > **Search Downloads**), the **Choose Account** dropdown list does not filter out expired accounts. Instead, it erroneously displays expired and non-expired accounts.

---

*Note ▪ The **Choose Account** dropdown list is only displayed if the user belongs to more than one account that is entitled to downloads.*

SWM-20454: Cannot Deselect Boolean Entitlement Custom Attributes With Names Containing More Than 30 Characters

During entitlement creation, certain custom attributes cannot be deselected once the entitlement has been saved. This issue occurs for custom attributes that match the following criteria:

- Name contains more than 30 characters

- Entity type **Entitlement**

- Type **Boolean**

This issue only occurs when creating and saving an entitlement in the Producer Portal. It does not occur when deselecting a Boolean custom attribute for entity type **Entitlement** whose name is more than 30 characters long using web services or the Data Import Template.

SWM-15171: Auto-Fulfill Failing During Large Bulk Upgrade Jobs

Auto-fulfill might fail in bulk upgrade jobs that contain more than 2200 line items.

SSRE-20257: Upload of Large File Images Failing

The upload of file images that exceed 1 GB using HTTP upload fails. For large file images, Revenera recommends using FTP upload.

SWM-18974: Invalid Characters in Entitlement Emails

In some scenarios, when Entitlement emails are sent using web services, the product description in the email can contain invalid characters. These appear when the **Text Content** section (in the **Email Template Content** section of the Entitlement Email template) contains the [[DESCRIPTION]] merge tag and if the relevant product description includes line breaks.

SWM-19052: Feature Count Aggregation Not Working As Expected

If a feature's aggregation type is changed, the relevant instance of the Cloud Licensing Service might not update the aggregated feature counts according to the new aggregation type.

However, if the entitlement for the product that contains the features is mapped to a new Cloud Licensing Service instance, the feature counts are aggregated correctly as per the new aggregation type.

FNO-69836: Variables in Vendor String Causing License Activation Issues

License activation fails for product upgrades or normal license activation when the product to be upgraded or activated is associated with a feature that has a vendor string which contains substitution variables that are enclosed in double quotes (for example, `"activationId":"{EntitlementLineItem.activationId}"`).

FNO-69338: Navigation in Package Products Pages Skipping Review Features Page

When the user navigates through the Package Products pages (under **Products** > **Features**) using the **Next** button at the bottom of each page, the Review Features and Review Feature Bundles pages are erroneously skipped.

As a workaround, users who want to review the features and feature bundles that they just added can click the **Review Features** and **Review Feature Bundles** links, respectively, in the Packaging Guide section at the bottom of the page to access the Review Features page.

SWM-15870: Mismatch Between User Name and Email Address Causing Issues with ESD (UserOrgHierarchyService)

When creating a user via the `UserOrgHierarchyService` web service (the predecessor of the User Account Hierarchy Service web service), it is possible to have different values for user name and email address. However, users whose user name and email address do not match cannot access downloads in the End-User Portal.

Producers who use the `UserOrgHierarchyService` should use the methods from the User Account Hierarchy Service web service to avoid a mismatch between the user name and email address.

FNO-69182: Incorrect Email Format Accepted When Creating User Via Import Template

It is possible to create or update a user with an invalid email address format by importing user information using the Account and User import template (downloadable from **Administer** > **Import Data Objects** > **Data Import Templates** in the Producer Portal). Email addresses of the format abcd@ef (that is, an email address consisting of a recipient name, @ symbol and domain name but without top-level domain) are erroneously accepted.

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-66018: Errors in UI Updated for Download Package Selection Across Multiple Pages

In 2021.09, 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 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.

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-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.

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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