

# FlexNet Operations 2025 ALM Release Notes

June 2025

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# Introduction

This Release Notes document summarizes the features, enhancements, and updates delivered with FlexNet Operations 2025.06 (UAT) in June 2025. The document includes the following information:

- Resources
- Features and Enhancements
- System Requirements
- Resolved Issues
- Known Issues
- Special Notes
- SOAP API Change Log
- Legal Information

# Resources

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

- Revenera Resources
- FlexNet Operations Videos
- Previous FlexNet Operations Release Notes

### **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.

Note that any FlexNet Operations documentation published for UAT is subject to finalization until the Production release.

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 first logging into the Revenera Community, clicking
Support on the navigation menu to open the Support Hub page, and then clicking the Open New
Case or Case Portal button.

# **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.

# **Previous FlexNet Operations Release Notes**

To view the release notes associated with FlexNet Operations ALM releases from previous years, access https://docs.revenera.com/?product=FlexNet%200perations and select the appropriate year from the **VERSION** list.

# **Features and Enhancements**

The following sections describe the new features and enhancements added to FlexNet Operations in 2025:

- Features and Enhancements in 2025.06
- Features and Enhancements in 2025.05
- Features and Enhancements in 2025.04
- Features and Enhancements in 2025.03
- Features and Enhancements in 2025.02
- Features and Enhancements in 2025.01

# Features and Enhancements in 2025.06

Features and enhancements were added to the following areas of FlexNet Operations in the 2025.06 release:

- Data Analytics Enhancements in 2025.06
- Device Management Enhancements in 2025.06
- SOAP and REST Web Services Enhancements in 2025.06
- User Experience Enhancements in 2025.06
- User Management Enhancements in 2025.06

# **Data Analytics Enhancements in 2025.06**

The following enhancement was made to the Analytics functionality in 2025.06.

#### **New Analytics Bar Chart "Downloads by Product Line"**

(SWM-26396)

As part of ongoing efforts to improve visibility and usability within the Software Delivery Download History dashboard (available from the **Analytics** menu), Revenera introduces a new interactive bar chart, **Downloads by Product Line**.

This new chart draws data from the **Downloads** dataset that are used by the FlexNet Operations Data Access API (for more information, see Data Access API and Data Share Entity Relationship Details). It visualizes the number of downloads categorized by product line.

#### **Key Functionality**

- Each bar represents the total downloads for a specific product line.
- Clicking on a bar dynamically filters the dashboard to display all downloads corresponding to the selected product line.

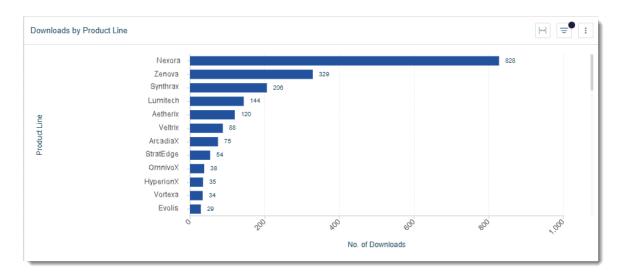


Figure 1: An example of the new Downloads by Product Line bar chart.

This enhancement provides users with a clearer overview of download trends by product line and enabling quick drill-down into detailed records.

#### **Key Benefits**

- Quickly identify which product lines have the highest or lowest download activity.
- Seamlessly drill down into download details with one click.
- Enhanced user experience for tracking and analysing download trends.

# **Device Management Enhancements in 2025.06**

The following enhancements to device management were added in the 2025.06 release.

- Bulk Updating Device Attributes
- Optional Site Name Information in AssignAccountToHost Sheet of Devices Template

#### **Bulk Updating Device Attributes**

(SWM-26157)

The Devices Template, first introduced in the 2025.05 release, has undergone further enhancements to provide producers with greater flexibility in managing device attributes at scale. As part of this update, a new sheet called **UpdateHost** has been added to the template, enabling bulk updates to the following device attributes: site name, notes, user ID, backup server ID, and device display name.

In the template, the following properties must be provided to update device attributes: host ID, host alias, publisher name, host class, and host ID type.

This screenshot shows an example of a populated template:

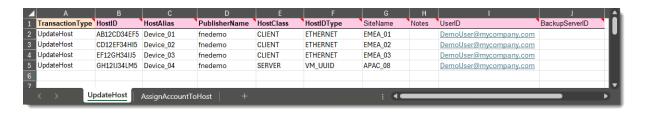


Figure 2: Example of a populated UpdateHost sheet.

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

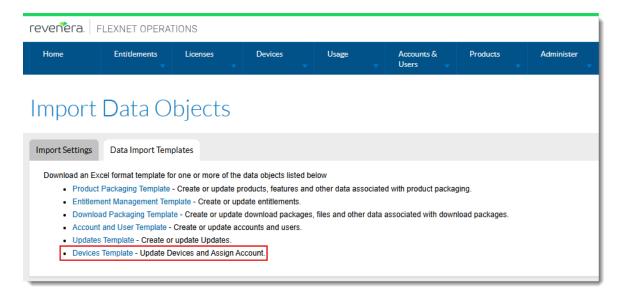


Figure 3: The Devices Template can be downloaded from the Import Data Objects page.

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.

#### Optional Site Name Information in AssignAccountToHost Sheet of Devices Template

(SWM-27230)

A new optional column, **SiteName**, has been added to the **AssignAccountToHost** sheet of the Devices Template. While this column cannot be used as input for this operation, it helps producers more effectively differentiate between devices and servers based on their site name.

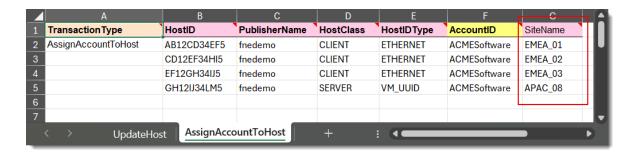


Figure 4: Example of a populated **SiteName** column on the **AssignAccountToHost** sheet of the Devices Template.

#### SOAP and REST Web Services Enhancements in 2025.06

The following enhancements were added to the SOAP and REST Web Services module in the 2025.06 release.

- New API Commands to Report Custom Attributes for Entitlements and Line Items
- Entitlement Order Service Now Returning Activatable Item Owner Details
- Optional vendorAuthString parameter in getFeaturesQueryRequest API in ProductPackagingService v3

# New API Commands to Report Custom Attributes for Entitlements and Line Items

(Case 02852081, SWM-19774)

This release introduces version 9 of the EntitlementOrderService web service. Version 9 enables users to retrieve details of all custom attributes—including Entitlement, Line Item, and Maintenance attributes—using the operations **getEntitlementsAttributeQuery** and **getEntitlementAttributeCount** with the query parameters searchEntitlementAttributeRequest and getEntitlementAttributeCountRequest.

The response contains an optional element activationId for searchEntitlementAttributeRequest and getEntitlementAttributeCountRequest.

The new API command returns all entitlements, line items and maintenance line items with their custom attributes.

#### **Key changes:**

- New version 9 of EntitlementOrderService.wsdl
- New Operations: getEntitlementsAttributeQuery, getEntitlementAttributeCount
- New Parameters: searchEntitlementAttributeRequest, getEntitlementAttributeCountRequest

For detailed information about the changes made to the EntitlementOrderService.wsdl and the .xsd files that it references, see the Change Log for 2025.06.

#### Sample Request and Response for getEntitlementsAttributeQuery

The following sections show sample code for getEntitlementsAttributeQuery.

#### Sample Request for getEntitlementsAttributeQuery

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</pre>
xmlns:urn="urn:v9.webservices.operations.flexnet.com">
  <soapenv:Header/>
  <soapenv:Body>
      <urn:searchEntitlementAttributeRequest>
         <urn:entitlementAttributeSearchCriteria>
            <!--Optional:-->
            <urn:entitlementId>
               <urn:value>ENT Test AutoRenew9</urn:value>
               <urn:searchType>EQUALS</urn:searchType>
            </urn:entitlementId>
         </urn:entitlementAttributeSearchCriteria>
         <urn:batchSize>10</urn:batchSize>
      </urn:searchEntitlementAttributeRequest>
  </soapenv:Body>
</soapenv:Envelope>
```

#### Sample Response for getEntitlementsAttributeQuery

This sample has been condensed to fit within space constraints.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</pre>
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance">
  <soapenv:Body>
      <searchEntitlementAttributeResponse xmlns="urn:v9.webservices.operations.flexnet.com">
         <statusInfo>
            <status>SUCCESS</status>
         </statusInfo>
         <entitlement>
            <simpleEntitlement>
               <entitlementId>
                  <id>ENT Test AutoRenew9</id>
               </entitlementId>
               <maintenanceLineItems>
                  <maintenanceProduct>
                     <uniqueId>HID-200000001928</uniqueId>
                     maryKeys>
                        <name>Main_Test3</name>
                        <version>1.0</version>
                     </primaryKeys>
                  </maintenanceProduct>
                  <orderId>2001</orderId>
                  <orderLineNumber>201</orderLineNumber>
                  <startDate>2024-03-01</startDate>
                  <expirationDate>2026-02-26</expirationDate>
                  <isPermanent>false</isPermanent>
                  <parentLineItem>
                     <uniqueId>HID-2000000142914</uniqueId>
                     maryKeys>
```

```
<activationId>TestAct_AutoRenew</activationId>
                     </primaryKeys>
                  </parentLineItem>
                  <associatedLineItems>
                     <uniqueId>HID-2000000142914</uniqueId>
                     maryKeys>
                        <activationId>TestAct AutoRenew</activationId>
                     </primaryKeys>
                  </associatedLineItems>
                  <maintenanceLineItemAttributes>
                     <attribute>
                        <attributeName>MLIA_ET_Boolean</attributeName>
                        <booleanValue>true</booleanValue>
                     </attribute>
                     <attribute>
                        <attributeName>TempCA1 Boolean FNO 54060</attributeName>
                        <booleanValue>false</booleanValue>
                     </attribute>
                     <attribute>
                        <attributeName>TempCA_Boolean_FNO_54060</attributeName>
                        <booleanValue>false</booleanValue>
                     </attribute>
                  </maintenanceLineItemAttributes>
                  <state>DEPLOYED</state>
               </maintenanceLineItems>
               </entitlementAttributes>
            </simpleEntitlement>
         </entitlement>
      </searchEntitlementAttributeResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

#### Sample Request and Response for getEntitlementAttributeCount

The following sections show sample code for **getEntitlementAttributeCount**.

#### Sample Request for getEntitlementAttributeCount

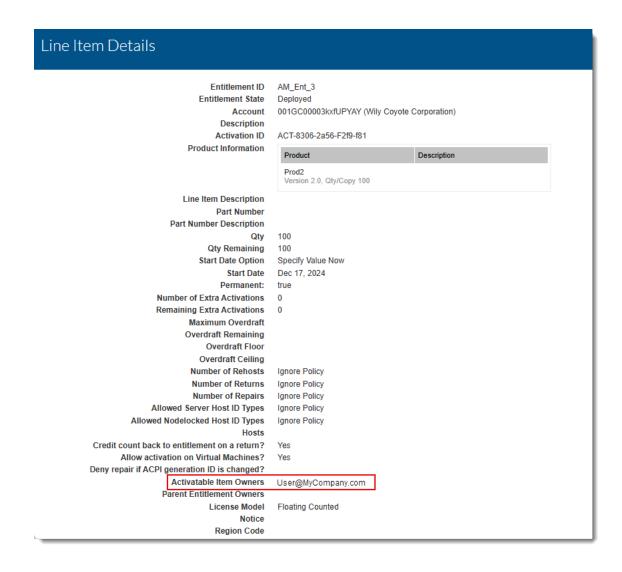
#### Sample Response for getEntitlementAttributeCount

#### **Entitlement Order Service Now Returning Activatable Item Owner Details**

(Cases 02847862, 03002310, 03004150, 03033984, 03034028; SWM-20135)

Producers can now extract information about self-registered end-users using the new version 9 of the EntitlementOrderService web service. This enhancement is especially useful for renewals, because it enables producers to tie self-registered end-users to the details in their ERP system.

Most importantly, producers can extract the end-users's email address that is displayed in the **Activatable Item Owner** field for a line item, as seen in this sample screenshot:



#### Details of Changes to EntitlementOrderService.wsdl

The following new filters were added to getEntitlementLineItemPropertiesQuery:

- productLine: For searching a line item based on the entitled product's product line.
- expiresIn: For searching a line item based on the expiration period. Available search units: DAYS, WEEKS, MONTHS, YEARS. This enables producers to filter for entitlements expiring within, for example, 30 days or 3 months.
- activatableItemOwnersSearch: Can have multiple activatableItemOwner child nodes. Retrieves all line items that belong to either of the emails provided as child elements.
- soldToDisplayName: For searching based on the display name of the assigned account.

The following optional response field was added to getEntitlementLineItemPropertiesQuery:

 activatableItemOwners: Can have multiple activatableItemOwner child nodes. Lists all the owners of a given line item.

For detailed information about the changes made to the EntitlementOrderService.wsdl and the .xsd files that it references, see the Change Log for 2025.06.

#### Optional vendorAuthString parameter in getFeaturesQueryRequest API in ProductPackagingService v3

(SWM-27118)

The **getFeaturesQueryRequest** API in the ProductPackagingService web service (version 3) now supports a new optional parameter: **vendorAuthString**.

The vendor auth string is used to sign license files for FlexNet Publisher licenses.

When a non-null, non-empty value is provided for **vendorAuthString**, it will be included in the API response. This enhancement allows producers to:

- Retrieve the vendor auth string alongside other feature properties.
- Query feature information using the vendor auth string as a filter.

For detailed information about the changes, see the Change Log for 2025.06.

#### Sample Request and Response for getFeaturesQuery

The following sections show sample code for getFeaturesQuery.

#### Sample Request for getFeaturesQuery

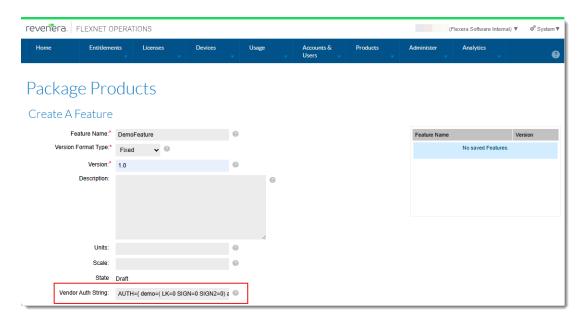
```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</pre>
xmlns:urn="urn:v3.webservices.operations.flexnet.com">
  <soapenv:Header/>
  <soapenv:Body>
     <urn:getFeaturesQueryRequest>
         <!--Optional:-->
         <urn:queryParams>
            <!--Optional:-->
            <urn:featureName>
               <!--type: string-->
               <urn:value>zstart</urn:value>
               <!--type: simpleSearchType - enumeration:
[STARTS WITH, CONTAINS, ENDS WITH, EQUALS]-->
               </urn:searchType>EQUALS</urn:searchType>
            </urn:featureName>
         </urn:queryParams>
         <!--type: integer-->
         <urn:pageNumber>1</urn:pageNumber>
         <!--type: integer-->
         <urn:batchSize>100</urn:batchSize>
      </urn:getFeaturesQueryRequest>
  </soapenv:Body>
</soapenv:Envelope>
```

#### Sample Response for getFeaturesQuery

```
</statusInfo>
         <responseData>
            <feature>
               <uniqueId>HID-8</uniqueId>
               <featureName>Zstart</featureName>
               <versionFormat>DATE_BASED</versionFormat>
               <version/>
               <description/>
               <state>DEPLOYED</state>
               <vendorAuthString>AUTH={ demo=( LK=0 SIGN=0 SIGN2=0) demo2=( SIGN=0 SIGN2=0)
}</vendorAuthString>
               <featureOverrideParams>
                  <dupGroup>
                     <dupGroupOption>NO_OVERRIDE</dupGroupOption>
                  </dupGroup>
               </featureOverrideParams>
            </feature>
         </responseData>
      </getFeaturesQueryResponse>
  </soapenv:Body>
</soapenv:Envelope>
```

#### **Vendor Auth String in Producer Portal**

The vendor auth string can also be displayed in the Producer Portal on the **Create A Feature** page (under **Products** > **Features** > **Add new Feature**):



By default, the **Vendor Auth String** field is hidden. Producers who wish to have it displayed should contact Revenera support.

# **User Experience Enhancements in 2025.06**

The following user experience enhancement was added in the 2025.06 release.

Auto-Upload of Default Public Key for CLS

- Shortened Configuration Option Name
- Web Service Transaction "returnHost" Visible in Producer Portal
- Extended File Download Period in End-User Portal
- Enhanced Performance for Cloud Licensing Service

#### **Auto-Upload of Default Public Key for CLS**

(SWM-26018, SWM-26942)

Producers can now configure a default .DER public key in the Producer Portal. This key will be automatically applied to all newly created Cloud License Server (CLS) instances. It means that producers no longer need to manually upload the public key (.DER) file to each of their CLS instances, saving time and effort.

Once a .DER file has been uploaded via the **Import** tab, it cannot be overwritten using the existing **import\_access\_key** REST API endpoint of the Cloud Licensing Service Module. Also, there is currently no option to view or delete an uploaded .DER file. However, you can upload a new .DER file, which will replace the existing one.

Producers upload the .DER file on the **Import** tab of the **System Configuration** page (under **System > Configure**). Uploaded .DER files are validated to confirm they are in the correct format. The following screenshot shows the new interface for the upload:

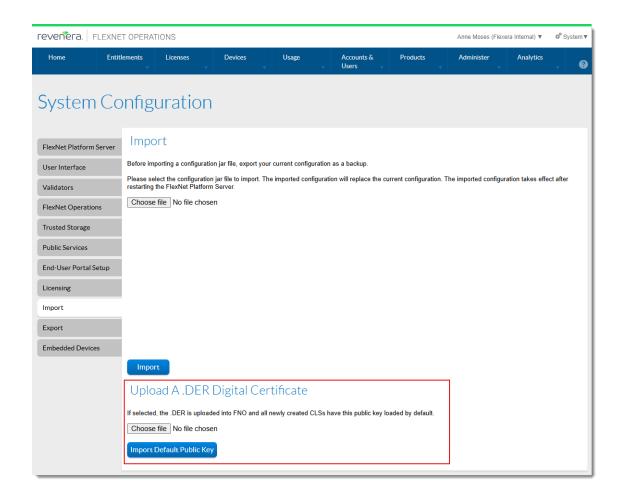


Figure 5: The Import tab on the System Configuration page now includes the Import Default Public Key button for uploading a .DER file that will be automatically applied to all newly created Cloud License Server (CLS) instances.

#### **Shortened Configuration Option Name**

(SWM-26378)

The 2025.04 release introduced a configuration which allows producers to change the behavior when mapping renewal licenses to devices. This configuration was called **Retain mapping of the parent activation to the devices when mapping a child activation** (available under **System > Configure > Embedded Devices > Host Options**; see also Allow Renewal License to Start Upon Expiry of Parent License).

In the 2025.06 release, the configuration name was shortened to **Retain parent activation ID on devices/servers**, to provide a better user experience.

#### Web Service Transaction "returnHost" Visible in Producer Portal

(SWM-24819)

The list of transactions displayed on the **Search Transactions** page in the Producer Portal (under **System** > **Transaction History**) will now also include host returns performed using web services. This enhancement is a continuation of the transparency improvements made in the 2025.04 and 2025.05 releases.

### **Tracked Operations In 2025.06**

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 tracked:

Transaction	Web Service Operation	Event Type	Description
Transactions tracked	Transactions tracked from release 2025.06 onwards		
Returning a host	returnHost	UPDATE	Tracks transactions where the status of a host is set to "RETURNED".
Transactions tracked	d from release 2025.05 onwa	rds	
Deleting a line item from a device	deleteAddOnLineItemsReq uest	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	decrementAddonLineItems Request	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.
Transactions tracked	d from release 2025.04 onwa	rds	
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.
Updating a device	updateDevice	UPDATE	Tracks transactions where a device was updated.

For a use case example or information about how to view transaction details, see Improved Transaction Visibility in Producer Portal.

#### **Extended File Download Period in End-User Portal**

(Case 02844268, SWM-19857)

Previously, the End-User Portal allowed file downloads for recent periods of 30, 60, 90, and 120 days. To meet customer requirements, the available selection on the **Recent Files Added** page has been expanded to include a 180-day option. This enhancement enables users to download files uploaded more than 120 days ago, ensuring greater flexibility for retrieving older content when needed.

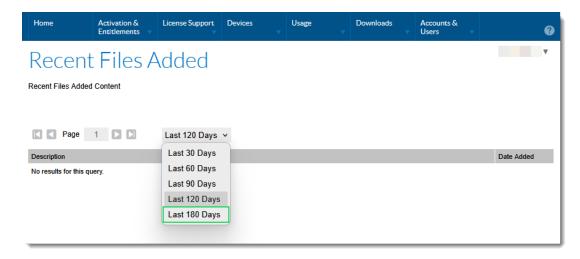


Figure 6: The dropdown menu on the Recent Files Added list now includes a new Last 180 Days option.

#### **Enhanced Performance for Cloud Licensing Service**

(Cases 02869447, 02904288, 02908404; SWM-16623)

Performance upgrades to the Cloud Licensing Service (CLS) now enable faster processing and better scalability for high-volume operations:

Previous Performance	Current Performance
Processing 200 CLS license updates took 5-7 minutes	3,000 CLS instances mapped to a product with feature quantity change completed in 2 minutes 20 seconds.
Changes for 1,400 CLS instances took up to 1.5 hours.	10,000 CLS license updates now processed in
High-volume CLS changes took up to 12 hours.	just 7 minutes.

These enhancements dramatically reduce wait times and improve efficiency for high-volume licensing operations.

### **User Management Enhancements in 2025.06**

The following user management enhancement was added in the 2025.06 release.

# **Automated User Provisioning from Identity Providers (IdPs) to FlexNet Operations**

(SWM-21825)

Revenera is introducing a new capability that simplifies user management for producers implementing Single Sign-On (SSO) with FlexNet Operations.

Previously, producers were required to manually replicate user information from their Identity Provider (IdP)—such as Okta or Entra—into FlexNet Operations. This manual process was time-consuming and error-prone, especially for SaaS providers managing large user bases.

Starting with the 2025.06 release, the Producer Portal now enables producers to automate their user provisioning from IdPs. Any changes to user data—including new user creation, identity updates, and user deletions—are automatically synced from the IdP to the Producer Portal, ensuring consistency.

This enhancement enables seamless synchronization of user identities, eliminating the need for manual duplication.

For detailed information, refer to the relevant section:

- Prerequisites for User Synchronization
- Supported IdPs
- Configuring Your IdP
- Impact of IdP User Changes on FlexNet Operations
- Setting Up User Synchronization in FlexNet Operations
- Enabling and Configuring User Synchronization in Each Portal
- Assigning Users to Accounts Post Sync
- Monitoring User Synchronization

#### **Prerequisites for User Synchronization**

The user configuring the user synchronization for the Producer Portal and/or the End-User Portal must have a role with the **Manage SAML SSO** permission.

Single sign-on with SAML must be configured for the portal whose users are to be synced (Producer Portal and/or End-User Portal). For more information, see the topic Single Sign-On Support with SAML in the FlexNet Operations User Guide.

#### Supported IdPs

FlexNet Operations supports any identity provider that complies with SCIM 2.0 and later. Examples include:

- Okta (https://www.okta.com)
- Microsoft Entra (https://www.microsoft.com/en-gb/security/business/microsoft-entra)

Salesforce (https://www.salesforce.com).

#### **Configuring Your IdP**

To enable secure communication for user synchronization between the IdP and FlexNet Operations, you must provide the following information in your IdP:

- Base URL—Point your IdP to the following endpoints to communicate with FlexNet Operations:
  - Producer Portal

https://<siteID>-fno.flexnetoperations.com/scim/v2

End-User Portal

https://<siteID>.flexnetoperations.com/scim/v2

In both URLs, replace <siteID> with your organization's site ID which is supplied by Revenera.

 API Token—Provide the access token generated by FlexNet Operations. This can be generated in the Producer Portal (under Accounts & Users > Manage Access Tokens). The token type must be NORMAL.



**Tip** • For more information about token generation, see the topic Managing Access Tokens in the FlexNet Operations User Guide.

#### Impact of IdP User Changes on FlexNet Operations

The following changes made to users in the IdP are synced with FlexNet Operations:

- New users created
- Updated user data (for example, email address, contact details)
- Users deleted



**Important** • Users deleted in the IdP are not removed from FlexNet Operations. Instead, their status is set to Inactive. Inactive users cannot access the system unless reactivated.

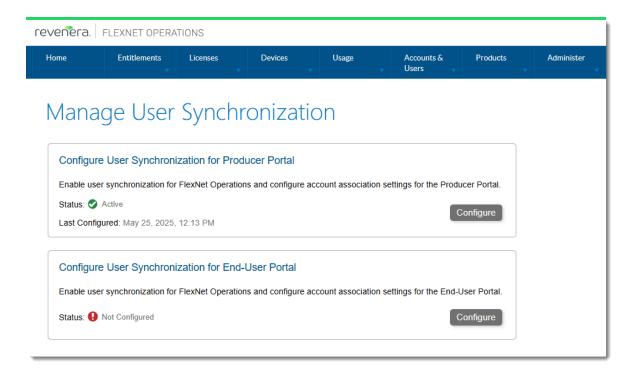
#### **Setting Up User Synchronization in FlexNet Operations**

You set up user synchronization on the **Manage User Synchronization** page (available from the **Administer** menu).

You have two setup options:

- Configuring User Synchronisation for Producer Portal.
- Configuring User Synchronisation for End User Portal.

The setup process is identical for both portals.



**Figure 7:** The **Manage User Synchronization** page serves as the starting point for setting up user synchronization in both the Producer Portal and End-User Portal..

#### **Enabling and Configuring User Synchronization in Each Portal**

Clicking **Configure** on the **Manage User Synchronization** page opens the page where you can configure the user synchronization settings for the Producer Portal and the End-User Portal, respectively.

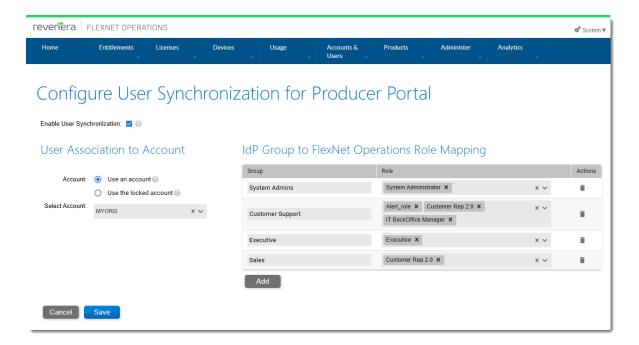
The first checkbox, **Enable User Synchronization**, lets you easily switch user synchronization between your IdP and the Producer Portal or the End-User Portal on and off.

#### **Assigning Users to Accounts**

You need to define the account to which synced users will be associated. Your options are:

- Use an account—Select this option if all synced users should be associated with a specific
  account. You can select this account using the Select Account dropdown, which will display all
  accounts that are currently set up for your organization.
  - This option, when paired with IdP group mapping to FlexNet Operations roles (see Mapping IdP Groups to FlexNet Operations Roles), provides the most efficient user synchronization method, requiring no additional manual intervention.
- Use the locked account—Select this option if all synced users should be associated with the
  default account, which is automatically created by the IdP sync process. The default account is
  named IDP\_SYNC\_DEFAULT\_PRODUCER for the Producer Portal and IDP\_SYNC\_DEFAULT\_CUSTOMER for
  the End-User Portal.

This option is suitable if you are creating users for multiple FlexNet Operations accounts. In a later step, discussed in section Assigning Users to Accounts Post Sync, you can map these users to an account of your choice and also assign them a role.



**Figure 8:** Here's a possible view of the **Configure User Synchronization for Producer Portal** page where synced users are added to the MYORG account, and IdP groups are mapped to FlexNet Operations roles.

#### Mapping IdP Groups to FlexNet Operations Roles

Optionally, if your IdP organizes users into groups, you can map each group to one or more FlexNet Operations roles. Upon sync, these users will be assigned the role(s) that you specified for their group.

**Example:** If your IdP has a group called **Customer Support** and you want to give all users in this group the roles Customer Rep 2.0 and IT BackOffice Manage, you could add the following row:





**Important** • When mapping groups, the group name must be entered exactly as it appears in your IdP, including capitalization.

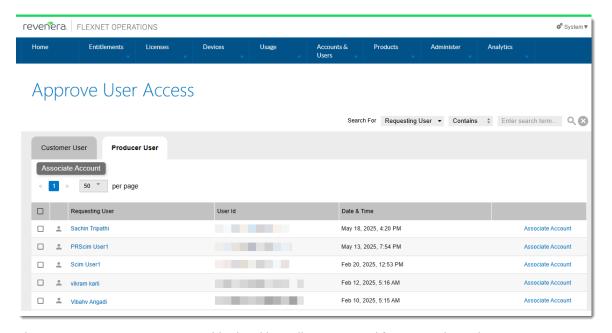
If groups are not mapped to roles, or if a user does not belong to a group, they are automatically created in FlexNet Operations and assigned the default role:

- Default Producer Role for the Producer Portal
- Default Portal Role for the End-User Portal

These default roles grant only the **View Feature** permission, which allows users to view the Home page and access the Logout button.

#### **Assigning Users to Accounts Post Sync**

If you selected the option **Use the locked account** on the **Configure User Synchronization** page for either of the portals, the **Approve User Access** page (also available from the **Administer** menu) will list all users linked to the default account (IDP\_SYNC\_DEFAULT\_PRODUCER for the Producer Portal and IDP\_SYNC\_DEFAULT\_CUSTOMER for the End-User Portal). The tabbed interface groups users into customer users and producer users.

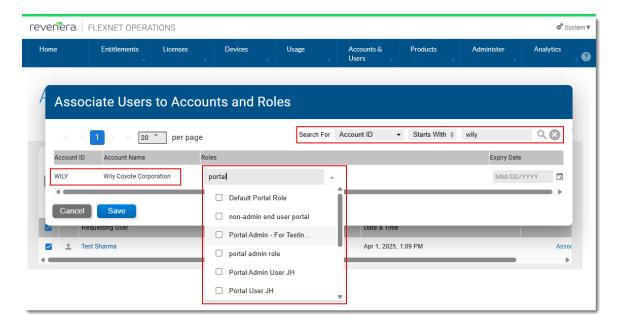


The **Approve User Access** page is tabbed and lists all users synced from your IdP to FlexNet Operations that were associated with the locked (default) account.



**Note** • Users assigned to a locked account will be listed on the **Approve User Access** page until they are assigned a new account.

On the **Approve User Access** page, you can efficiently associate users with accounts and assign roles. The interface provides options for assigning accounts to individual users via the **Assign Account** hyperlink or managing multiple users simultaneously by selecting them and clicking the **Assign Account** button above the table.



**Figure 9:** Example view of the **Associate Users to Account and Roles** window. The search bar is used to locate a specific account, and the **Roles** field supports text-based filtering to narrow down role selections.

#### **Monitoring User Synchronization**

Producers can easily monitor and track failed user synchronization attempts from the **User Synchronization Logs** page (also available from the **Administer** menu). The interface offers advanced search capabilities, allowing users to filter results by:

- Email address
- Date
- Time of failure

Each log entry provides key details, including:

- User's email address
- Associated portal (Producer Portal or End-User Portal)
- Date and time of failure
- Failure reason or error details (for example, missing role mapping, invalid account reference, IdP attribute mismatch)

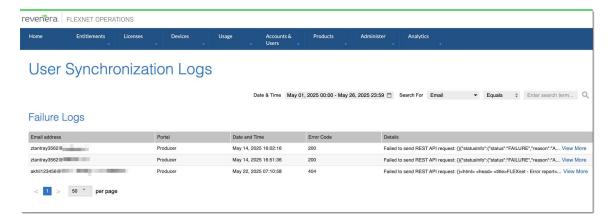


Figure 10: An example of the User Synchronization Logs page.

With these insights, producers can quickly identify and resolve onboarding issues, ensuring a smoother synchronization workflow.

# Features and Enhancements in 2025.05

Features and enhancements were added to the following areas of FlexNet Operations in the 2025.05 release:

- Data Analytics Enhancements in 2025.05
- Device Management Enhancements in 2025.05
- Entitlement Management Enhancements in 2025.05
- SOAP and REST Web Services Enhancements in 2025.05
- User Experience Enhancements in 2025.05

### **Data Analytics Enhancements in 2025.05**

The following enhancement was made to the Analytics functionality in 2025.05.

#### New "Created By" and "Last Modified By" Information in Data Warehouse

(Case 02969613, SWM-25037)

Several new fields have been added to the Data Warehouse. The most prominent updates are fields for "Created By" and "Last Modified By" information, which can now be extracted using the Analytics functionality, a data share or the Data Access API (DAPI). The information enables producers to track the origin and updates of data for better accountability and data management.

The following tables list all the fields that have been added to the data sets, along with a description of the data.

Table 1 • Data set: device

DAPI	Data Share	Description
OrderID	ORDER_ID	The value entered in FlexNet Operations while configuring the entitlement line items. (This may be imported from your CRM/ERP application.)
StartDate	LINE_ITEM_START_DATE	Start date of the line item.
DeviceCreatedBy	DEVICE_CREATED_BY	This field identifies the user who created the device.
DeviceUpdatedBy	DEVICE_UPDATED_BY	This field identifies the user who updated the device.
AddOnCreatedBy	ADDON_CREATED_BY	This field identifies the user who first mapped the line item to the device.
AddOnUpdatedBy	ADDON_UPDATED_BY	This field identifies the user who updated the mapped line item to the device.

Table 2 • Data set: entitlement

DAPI	Data Share	Description
ActivatableItemOwners	ACTIVATABLE_ITEM_OWN ERS	This field identifies users who self- register by logging in to the End-User Portal with an activation ID and set up their own user account.
EntitlementDescription	ENTITLEMENT_DESCRIPTI ON	A brief, optional description of the entitlement as defined in FlexNet Operations.
EntitlementCreatedBy	ENTITLEMENT_CREATED_ BY	This field identifies the user who created the entitlement.
EntitlementUpdatedBy	ENTITLEMENT_UPDATED_ BY	This field identifies the user who updated the entitlement.
LineItemCreatedBy	LINEITEM_CREATED_BY	This field identifies the user who created the line item.

Table 2 • Data set: entitlement

DAPI	Data Share	Description
LineItemUpdatedBy	LINEITEM_UPDATED_BY	This field identifies the user who updates the line item.
MaintenanceLineItemCreate dBy	MAINTENANCE_LINEITEM _CREATED_BY	This field identifies the user who created the maintenance line item.
MaintenanceLineItemUpdate dBy	MAINTENANCE_LINEITEM _UPDATED_BY	This field identifies the user who updated the maintenance line item.
ProductCreatedBy	PRODUCT_CREATED_BY	This field identifies the user who created the product.
ProductUpdatedBy	PRODUCT_UPDATED_BY	This field identifies the user who updated the product.

Table 3 • Data set: fulfillment

DAPI	Data Share	Description
FulfillmentCreatedBy	FULFILLMENT_CREATED_ BY	This field identifies the user who created the fulfillment.
FulfillmentUpdatedBy	FULFILLMENT_UPDATED_ BY	This field identifies the user who updated the fulfillment.

Table 4 • Data set: account

DAPI	Data Share	Description
AccountCreatedBy	ACCOUNT_CREATED_BY	This field identifies the user who created the account.
AccountUpdatedBy	ACCOUNT_UPDATED_BY	This field identifies the user who updated the account.
AccountHierarchyCreatedBy	ACCOUNT_HIERARCHY_C REATED_BY	This field identifies the user who created the account hierarchy.
AccountHierarchyUpdatedBy	ACCOUNT_HIERARCHY_U PDATED_BY	This field identifies the user who updated the account hierarchy.

Table 5 - Data set: product-feature

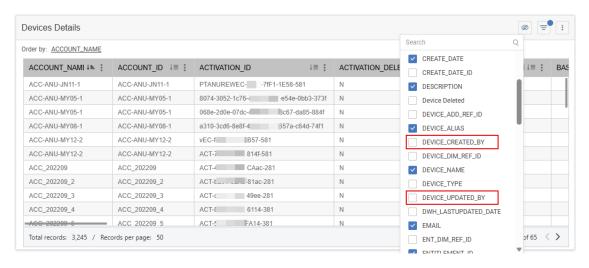
DAPI	Data Share	Description
ProductCreatedBy	PRODUCT_CREATED_BY	This field identifies the user who created the product.
ProductUpdatedBy	PRODUCT_UPDATED_BY	This field identifies the user who updated the product.
FeatureCreatedBy	FEATURE_CREATED_BY	This field identifies the user who created the feature.
FeatureUpdatedBy	FEATURE_UPDATED_BY	This field identifies the user who updated the feature.

Table 6 • Data set: user

DAPI	Data Share	Description
UserCreatedBy	USER_CREATED_BY	This field identifies the user who created the user.
UserUpdatedBy	USER_UPDATED_BY	This field identifies the user who updated the user.

#### **New Fields in FlexNet Operations Analytics**

Producers using the Analytics functionality need to know that by default none of the new fields are selected for display in the Analytics report tables. As an example, the following screenshot shows the default column selection for the Devices Details report:



### **Device Management Enhancements in 2025.05**

The following enhancements to device management were added in the 2025.05 release.

- Device History Now Listing Users Who Triggered Events
- Bulk Updating Account Information for Devices

#### **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.

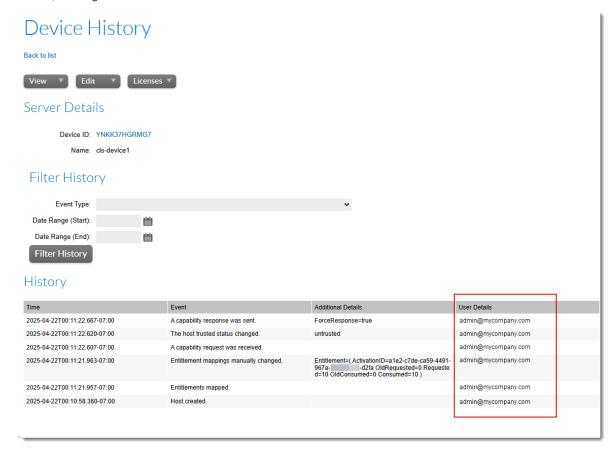


Figure 11: Example of the Device History page with the User Details column.

#### **Bulk Updating Account Information for Devices**

(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.

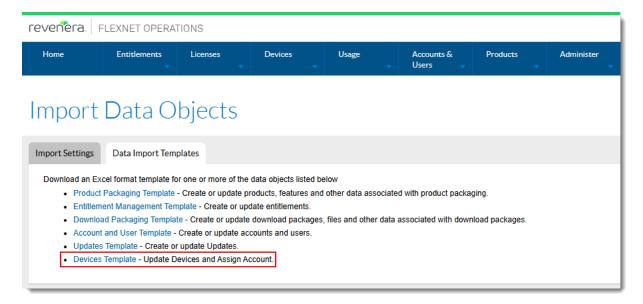


Figure 12: The Devices Template can be downloaded from the Import Data Objects page.

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:

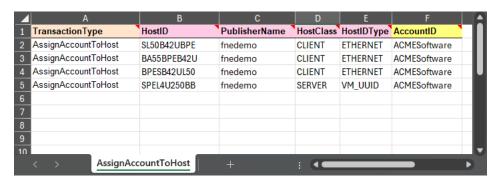


Figure 13: Example of a populated XLSX template.

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.

# **Entitlement Management Enhancements in 2025.05**

The following enhancements to entitlement management were added in the 2025.05 release.

- Ability to Limit Activation of FlexNet Embedded Nodelocked Licenses to Servers and/or Standalone Devices
- CONTAINER\_ID Host ID Now Available for Docker Containers
- Merge Tags Added to Fulfillment On Hold Email Template to Improve Communication
- Advanced Search for Entitlements Includes Custom License Models

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

(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.

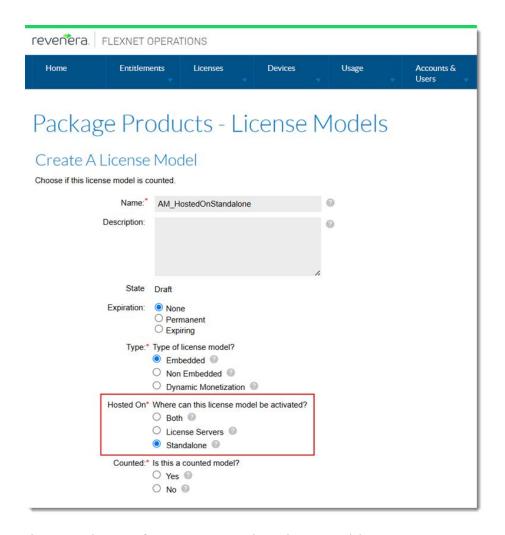


Figure 14: The Hosted On property is set during license model creation.

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 <code>HostedOnStandalone</code> 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.

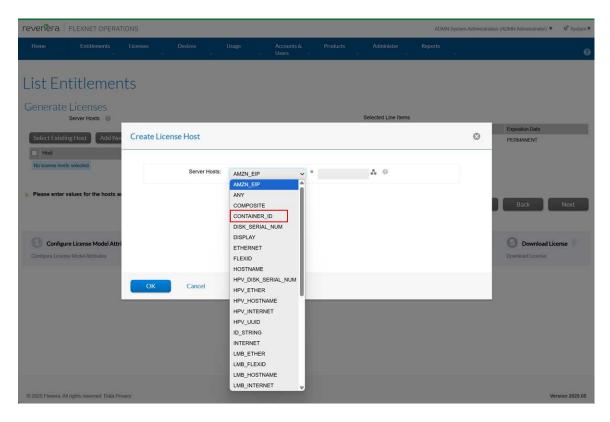


Figure 15: The CONTAINER ID can be selected in the Create License Host window.

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.

# 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/>
-----<br/>-----<br/>br/>
Fulfillment On Hold<br/>
------(br/>
FulfillmentID = <b>[[FulfillmentID]]</b><br />
Activation ID: [[ActivationID]] <br />
Entitlement ID: [[EntitlementID]]<br />
-----<br/>-----<br/>br/>
Sold to AccountName: [[AcctName]]<br />
Sold to AccountID: [[AcctID]] <br/>
ChannelPartnerDetails: <br/>
[[PartnerTierName]]: <br />
-----<br/>-----<br/>br/>
ProductName: [[PRODUCT_NAME]] <br/>
ProductVersion: [[PRODUCT_VERSION]] <br/>
PartNumber: [[PartNumber]] <br/>
LicenseTechnology: [[LicenseTechnology]] <br/>
LicenseModel: [[LICENSE_MODEL_NAME]] <br/>
-----<br/>-----<br/>br/>
LicenseModelAttributes: <br/> <br/>
[[LICENSE MODEL ATTRIBUTES]] <br/>
-----<br/>-----<br/>br/>
StartDate: [[START_DATE]] <br/>
ExpirationDate: [[EXPIRATION_DATE]] <br/>
FulfillmentDate: [[ACTIVATION_DATE]] <br/>
-----<br/>-----<br/>/br/>
OverdraftCount :[[OverdraftCount]] <br/>
FulfillmentCount : [[FulfillmentCount]] <br/>
```

#### Sample Email Based on the Fulfillment On Hold Template

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

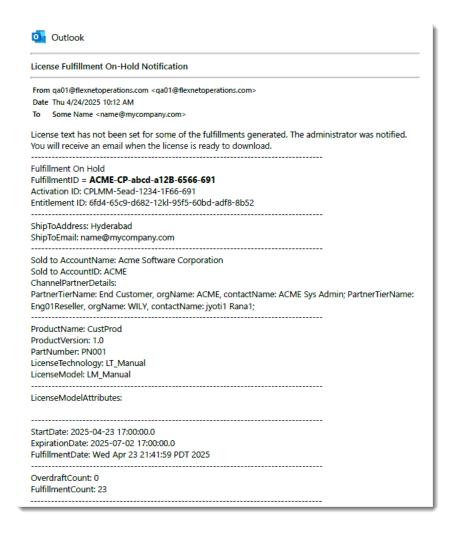


Figure 16: Example of an email with detailed fulfillment information, based on the Fulfillment On Hold template.

#### **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.

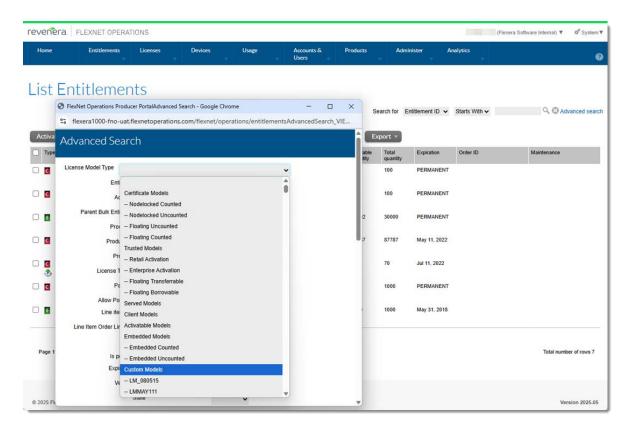


Figure 17: The Advanced Search window now includes custom license models when searching for entitlements.

## SOAP and REST Web Services Enhancements in 2025.05

The following enhancement was added to the SOAP and REST Web Services module in the 2025.05 release.

### **Zero Mapping of Activation IDs on Cloud License Servers**

(SWM-25022)

The 2025.05 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 devicel\_type.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</pre>
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>devicel_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/"</pre>
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>
```

# **User Experience Enhancements in 2025.05**

The following user experience enhancement was added in the 2025.05 release.

- Additional Web Service Transactions Visible in Producer Portal
- Selecting Individual Line Items in Entitlement Notification Email

### **Additional Web Service Transactions Visible in Producer Portal**

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

The 2025.04 release introduced a number of enhancements that increase transparency into transactions performed on a device—whether initiated via web services or in the Producer Portal or End-User Portal. Such transactions are displayed on the **Search Transactions** page in the Producer Portal (under **System > Transaction History**).

In the 2025.05 release, the following additional webservice-based actions are now captured on the **Search Transactions** page:

- Deleting line items from a device
- Obsoleting a host
- Removing add-on line items from a device
- Move device from one account to another
- Deleting a device

#### **Tracked Operations In 2025.05**

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 tracked:

Transaction	Web Service Operation	Event Type	Description				
Transactions tracked from release 2025.05 onwards							
Deleting a line item from a device	deleteAddOnLineItemsReq uest	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	decrementAddonLineItems Request	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.				
Transactions tracked from release 2025.04 onwards							
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.				
Updating a device	updateDevice	UPDATE	Tracks transactions where a device was updated.				

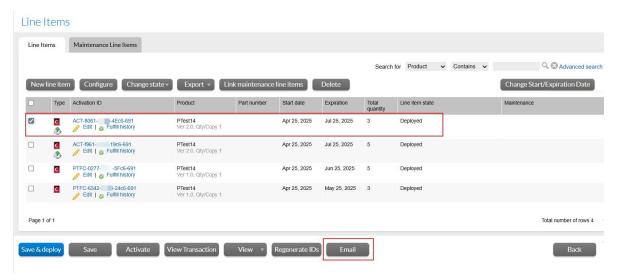
For a use case example or information about how to view transaction details, see Improved Transaction Visibility in Producer Portal.

# **Selecting Individual Line Items in Entitlement Notification Email**

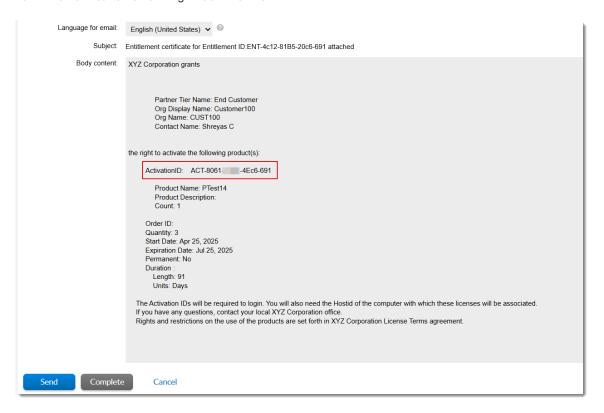
(Case 02971350, SWM-24682)

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.

# Features and Enhancements in 2025.04

Features and enhancements were added to the following areas of FlexNet Operations in the 2025.04 release:

- Entitlement Management Enhancements in 2025.04
- User Experience Enhancements in 2025.04
- SOAP and REST Web Services Enhancements in 2025.04

# **Entitlement Management Enhancements in 2025.04**

The following enhancements to entitlement management were added in the 2025.04 release.

- Allow Renewal License to Start Upon Expiry of Parent License
- Grouping Product Information in Entitlements Email Template
- New "Features" Column on List Entitlements Page

### 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.

## **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 18: 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 19: Entitlement email using the [[FOR-EACH tag="EntitledProduct"]] merge tag

## **New "Features" Column on List Entitlements Page**

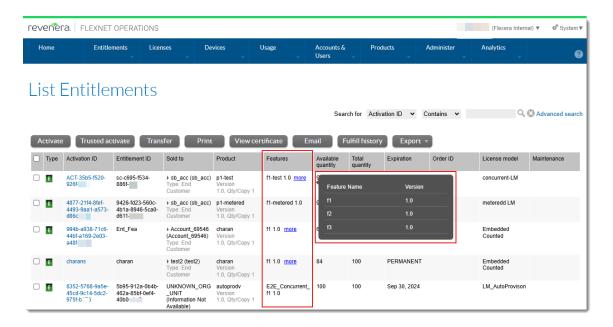
(Case 02982636, SWM-25094)

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.

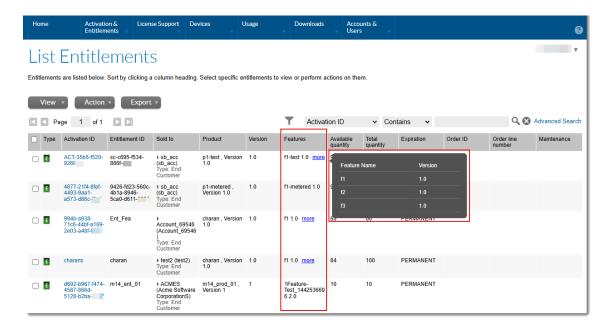
This enhancement makes it easier for producers and their customers who might be more familiar with feature names than product names to identify and manage the features associated with a product.

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



**Figure 21:** The **List Entitlements** page with the **Features** column displaying feature information in the End-User Portal

# **User Experience Enhancements in 2025.04**

The following user experience enhancement was added in the 2025.04 release.

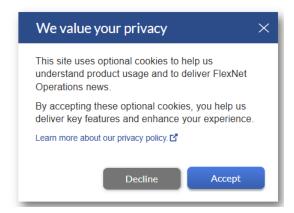
- New In-App Messaging Functionality
- Improved Transaction Visibility in Producer Portal

- Updated Localizations of Field Labels on List Entitlements Page in End-User Portal
- Changes Around Security Question Now Localized
- New Endpoint for Displaying Date of Next Database Refresh
- Easier Login to Revenera Registry

### **New In-App Messaging Functionality**

We are introducing a new capability in the FlexNet Operations Producer Portal, to help us modernize in-app messaging, streamline product on-boarding, and understand product usage. The main difference you should notice is improved messaging about FlexNet Operations maintenance, and new features being released.

However, the utility requires the use of optional cookies, and so upon logging into FlexNet Operations Producer Portal for the first time after this release, a pop-up will prompt your producer users to accept the cookie policy to enable the utility. (Until now, only essential cookies have been used in FlexNet Operations, which is why this is the first time we have introduced a cookie opt-out dialog. This dialog will only affect optional cookies for in-app messaging and product usage.)



Refer to the FAQs article if you have additional questions.



**Note** • This change will not affect the End-User Portal.

#### Improved Transaction Visibility in Producer Portal

(SWM-24573, SWM-24815, SWM-24816, SWM-24820)

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 four exceptions to the webservice-based transactions reported:

- Move device from one account to another
- Return device when it is no longer in use
- Any changes initiated using generateCapabilityResponse
- Any requests to generate a clone detection report

These transactions will be added during the coming releases in Q2 this year.

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 tracked:

Transaction	Web Service Operation	Event Type	Description
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.
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:

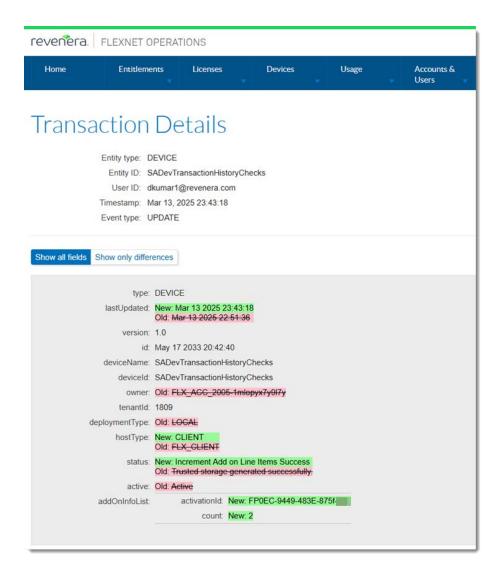


Figure 22: The Transaction Details page showing updates made to a device

# Updated Localizations of Field Labels on List Entitlements Page in End-User Portal

(SWM-22971)

In the End-User Portal, on the **List Entitlements** page, two of the labels in the Search drop-down menu had been changed in the 2024.10 release to more meaningful names as well as to match the equivalent labels used in the Producer Portal (see User Experience Enhancements in 2024.10). The new labels are **Sold-to Account Name** and **Sold-To Account ID**.

To provide the same enhanced user experience for users of the localized interface of FlexNet Operations, the translations of these two labels have now been updated.

The following screenshot shows the List Entitlements page in the End-User Portal:



Figure 23: The Sold-to Account Name and Sold-to Account ID fields on the List Entitlements page in the End-User Portal now have more meaningful translations.

## **Changes Around Security Question Now Localized**

(SWM-25768)

In the 2025.03 release, the dialog for the security question was updated for existing users who had selected "Where were you when you first heard about 9/11?" as their security question (see Removed Security Question). The warning text that was added in 2025.03 has now been translated and will appear in the localized versions of the End-User Portal.

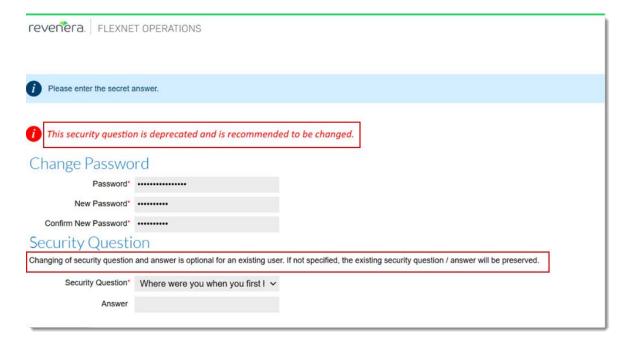


Figure 24: This screenshot shows the (English) text that has been localized in the 2025.04 release.

#### New Endpoint for Displaying Date of Next Database Refresh

(Case 02912896, SWM-23482)

For Production Copy Service (PCS) environments, a new REST endpoint

/flexnet/operations/rest/pcsRefreshDate has been introduced. When called, it returns the next production copy refresh date. The refresh date could be displayed in a banner like this:

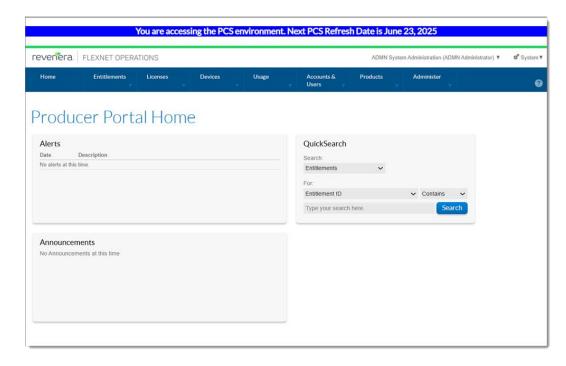


Figure 25: An example of a banner displaying the PCS refresh date.

Knowing the database refresh date can provide guidance when the PCS environment is used as a staging instance before deploying changes to the production environment.

## **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.

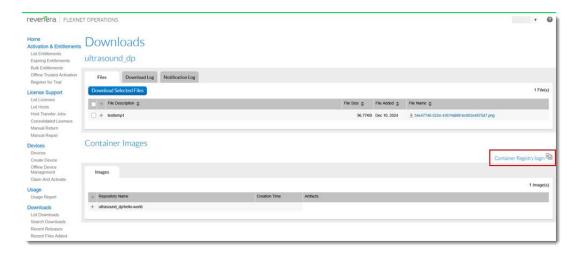


Figure 26: The Downloads page of the End-User Portal with the new Container Registry login button.

## SOAP and REST Web Services Enhancements in 2025.04

The following enhancement was added to the SOAP and REST Web Services module in the 2025.04 release.

## **New Entitlement Management REST API**

This release introduces the beta version of the first REST API in a series of new APIs aimed at simplifying integration with low-code platforms and improving overall performance. The first API, for creating a simple entitlement, is designed to streamline the process of creating entitlements in FlexNet Operations through an easy-to-use RESTful interface, making it ideal for low-code users. The new APIs are also optimized for performance, ensuring faster response times and improved scalability.

To authenticate requests to the Entitlement Management API, users must provide an authentication token, which can be obtained using the REST web service **access-token-controller** or using the **Manage Access Tokens** page in the Producer Portal.

For details about the new REST API, see the section RESTful Services for Entitlement Management in the Web Services Integration Guide.

# Features and Enhancements in 2025.03

Features and enhancements were added to the following areas of FlexNet Operations in the 2025.03 release:

- Entitlement Management Enhancements in 2025.03
- User Experience Enhancements in 2025.03

# **Entitlement Management Enhancements in 2025.03**

The following enhancements to entitlement management were added in the 2025.03 release.

- 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
- Visibility of Product Lines Created by Other Producer Users
- Changing the Prefix for Trial Activation IDs

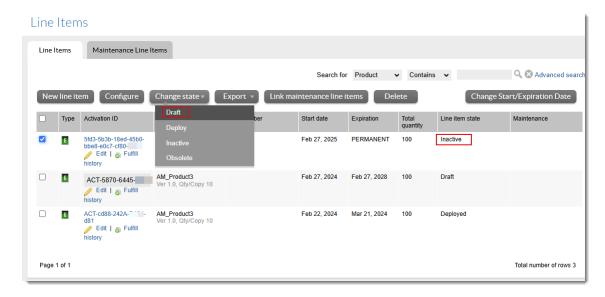
## Inactive Line Items Can Now Be Changed to Draft to Allow Editing

(Case 02552542, SWM-25355)

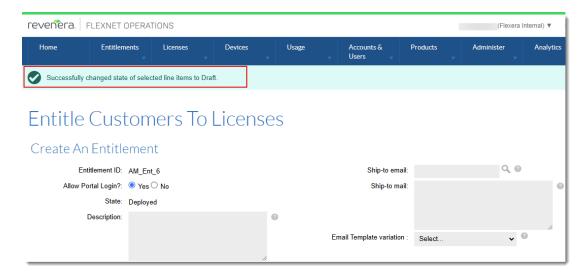
The 2025.03 release now allows producers to change the state of line items from Inactive to Draft. Previously, to edit an inactive line item, its status had to be changed to Deployed. This enhancement means that producers can edit or re-use previously inactive line items, without the need to deploy these 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 27:** Changing the line item status from Inactive to Draft in the **Line Items** section of the **Entitle Customers to Licenses** page



**Figure 28:** 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 expections. 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).

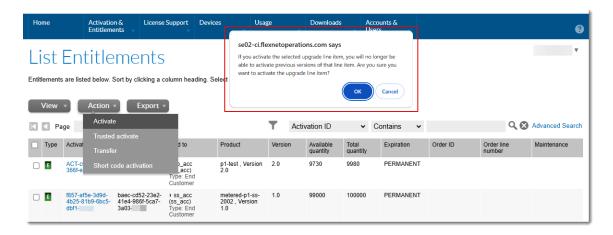


Figure 29: Example of the warning message in the End-User Portal

## **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:

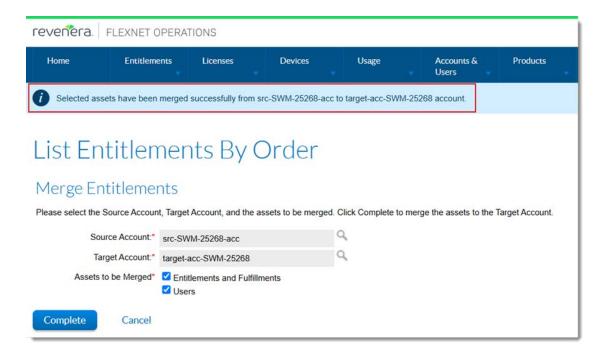


Figure 30: The confirmation message after a merge on the List Entitlements By Order | Merge Entitlements page

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.

#### Visibility of Product Lines Created by Other Producer Users

(Case 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.

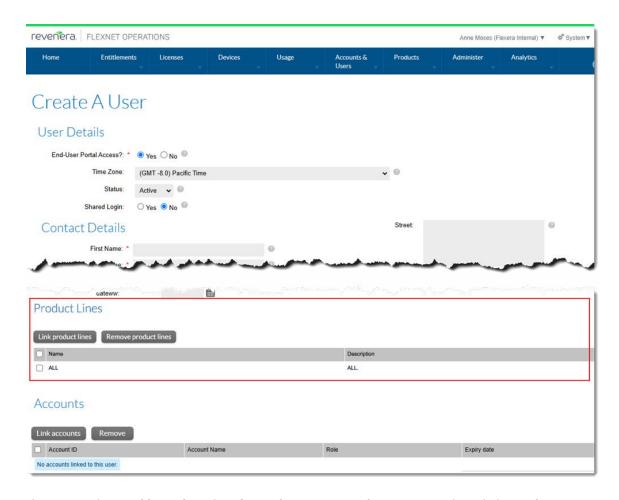


Figure 31: When Enable Product Lines for Products, Users, and Accounts is selected, the Product Lines section on the Create a User page (pictured) and the Create an Account page displays all product lines, including those created by other producer users.

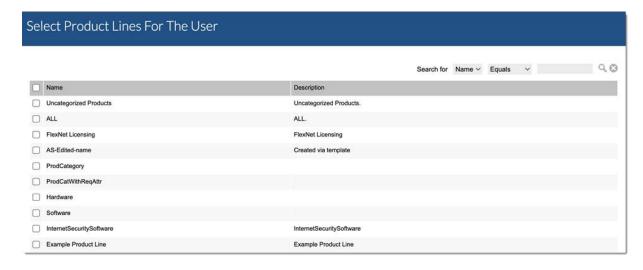


Figure 32: Clicking Link product lines in the Product Lines section on the Create a User page and the Create an Account page displays the Select Product Lines for the User window, where producer users can link or remove a product line, including those product lines created by other producer users.

## **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).

# **User Experience Enhancements in 2025.03**

The following user experience enhancement was added in the 2025.03 release.

## **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:

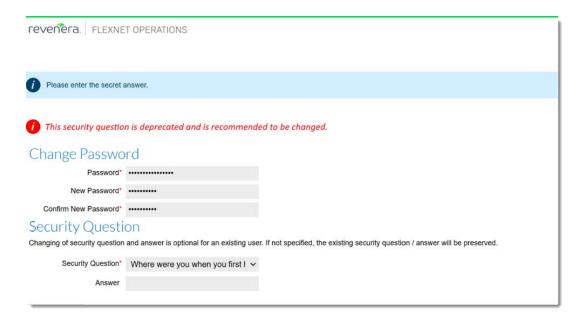


Figure 33: Existing users are informed that the 9/11 security question is deprecated.

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

# Features and Enhancements in 2025.02

Features and enhancements were added to the following areas of FlexNet Operations in the 2025.02 release:

- Data Analytics Enhancements in 2025.02
- Entitlement Management Enhancements in 2025.02
- SOAP and REST Web Services Enhancements in 2025.02

# **Data Analytics Enhancements in 2025.02**

The following enhancement was made to the Analytics functionality in 2025.02.

#### **New Report to Analyze Denied Access Requests**

The License Server Usage report (under **Analytics** > **License Server Usage**) has been expanded to include a new chart, called **Denials Distribution**, covering denials data. To reflect this new capability, the License Server Usage report has been renamed to License Server Usage and Denials.

The License Server Usage and Denials report analyzes the denials made by a Cloud Licensing Service (CLS) instance, Dynamic Monetization instance or a local license server and provides insights into causes and patterns where requests to access licensed software were rejected. The report reveals details about:

 Denial reasons—Reasons are grouped by the denial status code, along with the percentage distribution per denial code. Identifying the most common reasons for denials—such as, for example, insufficient feature counts or elastic tokens, expired features, features not available due to rule rejection—allows producers and their customer to take corrective action.

- Denial patterns—Discover which accounts are experiencing the highest number of denials. This
  information helps producers uncover key accounts that might not be sufficiently provisioned with
  licenses to meet their day-to-day operational requirements.
- Denial trends—Patterns in denied requests can help producers forecast future demand for certain features, products, or license types. This insight supports better resource allocation, product development, and infrastructure planning to meet anticipated growth.

Clicking the **Denials Distribution** chart opens a new page which shows the Denials Distribution pie chart, the Denials by Account bar chart, and the Denials Summary table (described below).



**Note** • For usage data from a local license server to be available in the Data Warehouse, the following policy settings must be configured:

- usageService.sync.enabled—Must be set to true.
- usageService.sync.url—Must point to the usage service URL, which is

https://<siteId>.compliance.flexnetoperations.com/usage/api/1.0/sync

where <siteId> is replaced with the specific site ID supplied by Revenera, for example:

https://flex1234.compliance.flexnetoperations.com/usage/api/1.0/sync

licensing.trackDeniedRequests—Must be set to true if the usage data should also include denied
request information. To disable tracking of denied requests, licensing.trackDeniedRequests set to
false.

For more information, see the topic "Pushing Usage Data to the Data Warehouse" in the FlexNet Embedded License Server Producer Guide (available from the Product and License Center).

#### **Denials Distribution Pie Chart**

The Denials Distribution pie chart visualizes the different types of denials along with their percentage distribution, providing insights into denial patterns. Hover over a pie slice to see the following information:

- Denial status code and description
- Absolute number of denials
- Percentage of denials

You can filter the pie chart using the using the widget filter at the top, to focus on specific denial status codes, accounts, or other criteria.

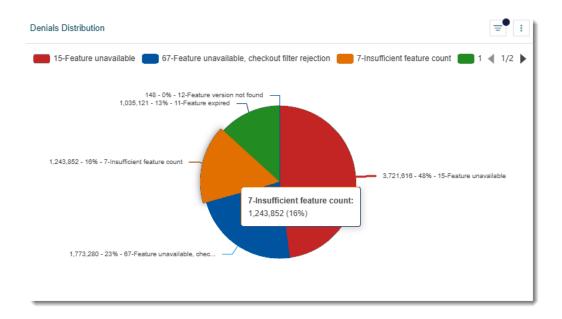


Figure 34: Example of a Denials Distribution pie chart

### **Denials by Account Bar Chart**

The Denials by Account bar chart shows the denials segmented by account, offering valuable insights into the key accounts that should be prioritized for revenue generation opportunities.

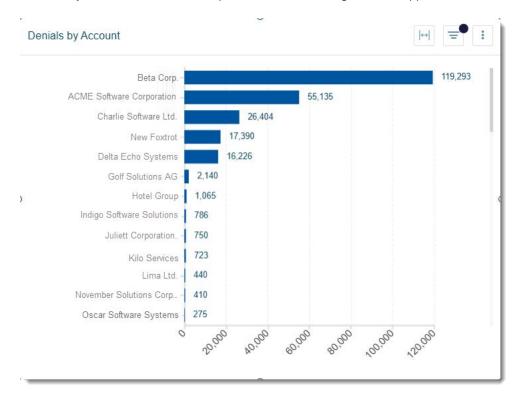


Figure 35: Example of a Denials by Account bar chart

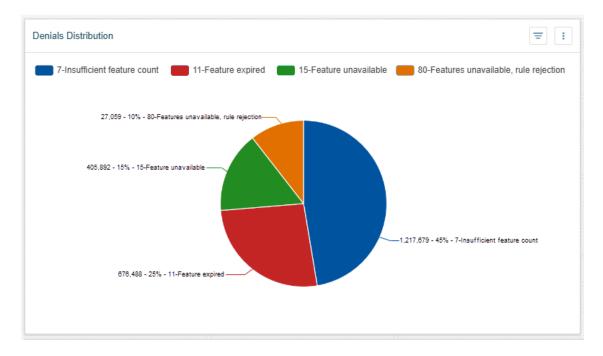
#### **Denials Summary Table**

The Denials Summary table offers detailed insights into denials, showing data such as users/clients, features and timestamp, enabling data-driven conversations with customers.

#### **Insights Gained From the Denials Distribution Report**

The following example illustrates how producers might benefit from the insights provided by the Denials Distribution report.

Let's assume that your Software as a Service (SaaS) company offers subscription-based software licenses, but users frequently face license checkout denials when trying to access the software. You generate a Denials Distribution report to analyze the issue. The screenshot below shows the findings of the report:



The report lists the most common denial reasons, which enables you to take action and turn the denials into upsell or cross-sell opportunities. This in turn also reduces the impact on your customer support team.

**Table 7** • Example Findings of a Denials Distribution report

Denial Reason	Denial Rate (%)	Insights	Opportunity
Insufficient feature	45%	The main reason for denials is that demand exceeds the current subscription plan.	Upselling additional licenses:
count available Insuffient elastic tokens available (Dynamic Monetization)			Sales, the Renewals team or Customer Sucess Managers can leverage the report's insights to discuss upgrading the subscription plan, introduce dynamic license allocation or on-demand scaling with the customer.
Feature expired  No valid active line	25%	Loss of revenue due to missed renewals.	Increase renewal opportunities: Engage the Renewals team to lead
items (Dynamic Monetization)			data-driven conversation with the customer.
			Send proactive renewal reminders, set up automated renewal reminders, or enable auto-renewal.
Feature unavailable	15%	User attempting to	The Sales or Renewals team can
Item not found in any effective rate table (Dynamic Monetization)	access a premium product not included as part of the current subscription plan.	leverage this opportunity for cross- selling or upselling.	

Table 7 - Example Findings of a Denials Distribution report

Denial Reason	Denial Rate (%)	Insights	Opportunity
Feature unavailable, checkout filter rejection	10%	activate software due to rules of access or feature  The denials mig	Opportunity to upsell additional licenses:
Feature unavailable, rule rejection			The denials might indicate additional demand for a feature.
	55155151		Customer Sucess Managers could share this report with the enterprise license administrator to enable them to:
			<ul> <li>Identify users/clients unable to activate software due to certain restrictions, but who require access to features.</li> </ul>
			<ul> <li>Adjust feature selectors and rules of access to allocate licenses to users/client/departments that derive the most value from the software.</li> </ul>

# **Entitlement Management Enhancements in 2025.02**

The following enhancements to entitlement management were added in the 2025.02 release.

- Error Message When Activating Obsolete/Inactive Line Items
- Overhaul of the "Show Line Items with Zero Copies by Default" Configuration Option

# **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-6dlc- 5 https://flexera1000-ci.compliance.flexnetoperations.com/deviceservices -full -wr-publisherid" 1000

Response has valid back-office signature

Response has valid back-office signature

Response has valid back-office signature

Response has valid back-office

ServerID-SACK_OFFICE

ServerID-BACK_OFFICE

SourceIds=BACK_OFFICE

SourceIds=
```

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

# 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.



Note • A known issue exists; see SWM-24042: Input Sanitization Disabled.

# **SOAP and REST Web Services Enhancements in 2025.02**

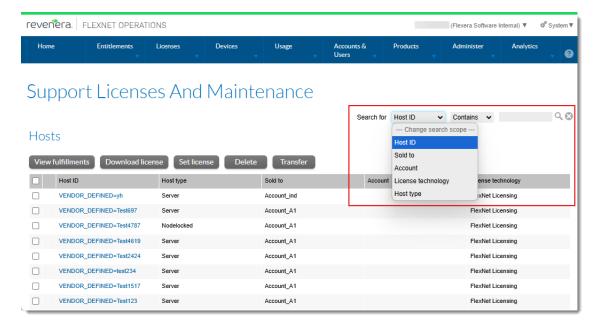
The following enhancements were added to the SOAP and REST Web Services module in the 2025.02 release.

- Returning Fulfillment and License Information for Non-Embedded Technologies Using Web Services
- New Operation for Getting Host Count in License Service SOAP Web Service

# Returning Fulfillment and License Information for Non-Embedded Technologies Using Web Services

(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 2025.02 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">

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 License Service SOAP Web Service).

The following snippet shows sample XML code:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</pre>
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>
```

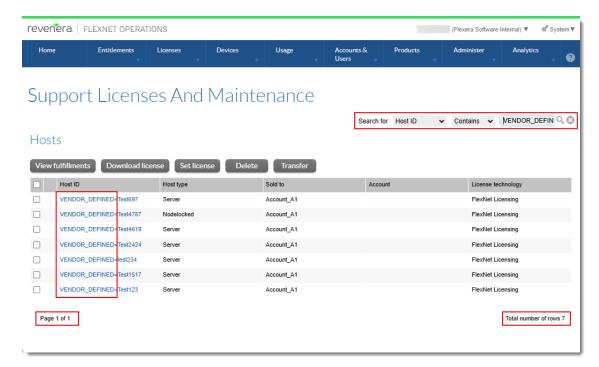
For detailed information about the changes made to the LicenseFulfillmentService.wsdl and the .xsd files that it references, see the Change Log for 2025.02.

## **New Operation for Getting Host Count in License Service SOAP Web Service**

(Related to Case 02370066, SWM-25245)

Along with the **getHostQuery** operation (see Returning Fulfillment and License Information for Non-Embedded Technologies Using Web Services), 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:

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 Web Services).

The following snippet shows sample XML code:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</pre>
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>
```

For detailed information about the changes made to the LicenseFulfillmentService.wsdl and the .xsd files that it references, see the Change Log for 2025.02.

# Features and Enhancements in 2025.01

Features and enhancements were added to the following areas of FlexNet Operations in the 2025.01 release:

- Entitlement Management Enhancements in 2025.01
- User Experience Enhancements in 2025.01
- Device Management Enhancements in 2025.01
- Dynamic Monetization Enhancements in 2025.01

# **Entitlement Management Enhancements in 2025.01**

The following enhancement to entitlement management was added in the 2025.01 release.

## **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]]
```

# **User Experience Enhancements in 2025.01**

The following user experience enhancement was added in the 2025.01 release.

## **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.

# **Device Management Enhancements in 2025.01**

The following enhancement to device management was added in the 2025.01 release:

### **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.

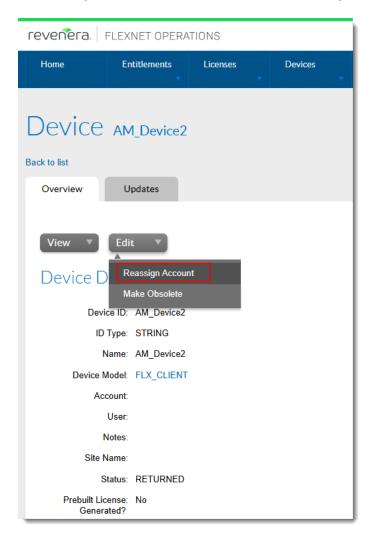
#### Reassigning a Device Using the Producer Portal

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.)

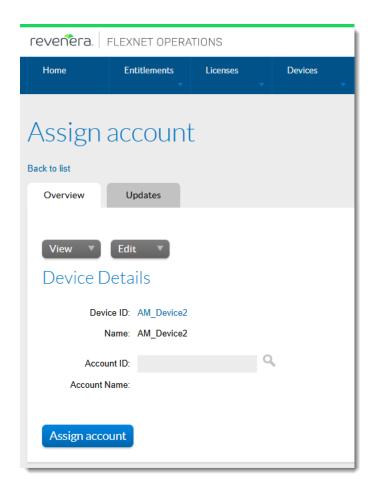


**Note** • Returned devices have a status of Returned and are by default not listed on the **Devices** page (under **Devices** > **Devices**) even when searched. To display returned devices on the **Devices** page, select the option **Inactive** in the filter above the devices list.

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>
```

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**.

### **Dynamic Monetization Enhancements in 2025.01**

The following enhancement for Dynamic Monetization was added in the 2025.01 release.

#### **Allowing Overdrafts in Elastic Access**

(SWM-23936)

When end customers run out of Elastic Access tokens before the expiration of a line item, producers may want to allow them to continue using capabilities and to consume tokens until a new purchase of tokens can be arranged. To enable end customers to consume tokens beyond their entitled count, Elastic Access now allows an overdraft limit to be provided on line items. The recorded usage data provides a basis for subsequent billing.

In the Producer Portal, Elastic Access license models can be set up using a new overdraft attribute. Producers can specify the overdraft using one of the following settings:

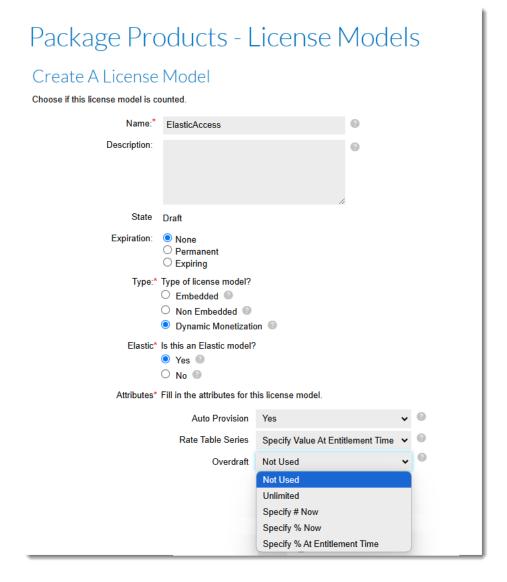
- Not used
- Unlimited
- Specify # now
- Specify % now
- Specify % at entitlement time

The default setting is Not used, and a zero overdraft limit will be enforced if this setting is chosen.

When an overdraft is set, line items using this license model will be configured with the value, allowing end customers to consume tokens from the line item up to the overdraft limit above the entitled quantity.

If **Unlimited** is selected, then an "infinite" overdraft limit is used, and end customers can consume tokens without constraint.

In the Producer Portal, producers set the overdraft for Elastic Access license models on the **Package Products - License Models | Create A License Model** page (under **Administer > License Models > Create new license model**), as shown here:



Producers who use a back office other than FlexNet Operations can set the overdraft directly in the **/line-items** API, using the attributes parameter and the overdraftLimit and overdraftType properties.

To allow an unlimited overdraft, set overdraftType to Unlimited.

To allow a limited overdraft, set overdraftType to Number and set overdraftLimit to the number of tokens that can be consumed from the line item above the entitled quantity.

The following snippet shows a sample request for a limited overdraft:

```
{
    "activationId": "string",
    "state": "string",
    "quantity": 1,
    "start": 0,
    "end": 0,
    "attributes": {
        "elastic": false,
        "rateTableSeries": "",
        "overdraftLimit": 100,
        "overdraftType": "Number"
    }
}
```

For details about this API, see the Dynamic Monetization API documentation, topic Map a line item to an instance (https://fnoapi-dynamicmonetization.redoc.ly/#operation/addActivation).

The overdraft details are recorded in the Usage Metrics table in the Snowflake Data Warehouse (field OVERDRAFT\_COUNT) and can also be returned using the Data Access API (field overdraftCount). For more information, see the Data Access API and Data Share Entity Relationship Details.

## **System Requirements**

Detailed system requirements for FlexNet Operations include the following.

Requirement	Description	
Web browsers	Microsoft Edge	
	Mozilla Firefox 75.0	
	• Google Chrome 80.0.3987.163	
FlexNet licensing module	FlexNet Publisher Toolkit 11.12.0 or later	
	<ul> <li>FlexNet Embedded Toolkit 2015 R2 or later</li> </ul>	
	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.	

Requirement	Description		
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:		
	<ul> <li>Windows—Visual Studio 2010 Professional Edition</li> </ul>		
	• 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 eac supported platform. (See the FlexNet Publisher 11.11.1 release notes for C/C++ compiler support.)		
High Speed File Upload	If you intend to use the <b>High Speed Upload</b> 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 releases to date:

- Issues Resolved in 2025.06
- Issues Resolved in 2025.05
- Issues Resolved in 2025.04
- Issues Resolved in 2025.03
- Issues Resolved in 2025.02
- Issues Resolved in 2025.01

## **Issues Resolved in 2025.06**

An issue in the following area was resolved in the FlexNet Operations 2025.06 release:

- SOAP and REST Web Services Issues Resolved in 2025.06
- User Experience Issues Resolved in 2025.06

### **SOAP and REST Web Services Issues Resolved in 2025.06**

The following issue related to FlexNet Operations Web Services was addressed in the 2025.06 release.

Country Code Validation in createUser API

updateProduct API Call No Longer Fails to Update Product Fields

#### **Country Code Validation in createUser API**

(SWM-26045)

Starting with the 2025.06 release, the **createUser** API of the UserAcctHierarchyService web service now validates the provided two-letter country code (if a code country is specified). If the country code is invalid, the request fails and the API returns an error. The validation is performed in all versions of the UserAcctHierarchyService web service.

Specifying a country code is optional. If provided, the country codes must follow the two-letter format based on the ISO 3166-1 Alpha-2 standard. If no country code is provided, the user will be created with the default country code "US" (United States).



Note • The default country code can be changed under System > Configure > FlexNet Operations > General Options > Default Country for Users and Account Addresses.

This change addresses an issue whereby users created without a supported country code were previously instead assigned a default country code, which resulted in incorrect data. These users were not synced with the Electronic Software Delivery (ESD) system and were therefore unable to access their software downloads in the End-User Portal. In addition, because a default country code was assigned, the process did not return an error, and customers were not aware of the discrepancy.

#### Sample Code for createUser API

This section contains example code for the following scenarios:

- Soap request with an invalid country code
- Soap response for a request with an invalid country code
- Soap request with a valid country code
- Soap response for a request with a valid country code

#### Soap request with an invalid country code

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</pre>
xmlns:urn="urn:v6.webservices.operations.flexnet.com">
  <soapenv:Header/>
  <soapenv:Body>
      <urn:createUserRequest>
         <!--1 or more repetitions:-->
         <urn:user>
            <urn:firstName>Dev008</urn:firstName>
            <urn:lastName>New008</urn:lastName>
            <urn:displayName>Dev008 New008</urn:displayName>
            <urn:emailAddress>testtrial0015@revenera.com</urn:emailAddress>
            <urn:street>Pehani</urn:street>
            <urn:city>Gaya</urn:city>
            <urn:state>NA</urn:state>
            <urn:zipcode>54879</urn:zipcode>
            <urn:country>Ind</urn:country>
            <urn:canLogin>1</urn:canLogin>
```

```
<urn:acctRolesList>
               <urn:acctRoles>
                  <urn:account>
                     <urn:primaryKeys>
                        <urn:id>123</urn:id>
                     </urn:primaryKeys>
                  </urn:account>
                  <urn:roles>
                     <urn:role>
                        <urn:primaryKeys>
                           <urn:name>Portal User Role</urn:name>
                        </urn:primaryKeys>
                     </urn:role>
                  </urn:roles>
               </urn:acctRoles>
            </urn:acctRolesList>
         </urn:user>
         <urn:opType>CREATE OR UPDATE</urn:opType>
      </urn:createUserRequest>
   </soapenv:Body>
</soapenv:Envelope>
Soap response for a request with an invalid country code
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</pre>
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance">
   <soapenv:Body>
      <createUserResponse xmlns="urn:v6.webservices.operations.flexnet.com">
         <statusInfo>
            <status>FAILURE</status>
            <reason>All input data in the request failed. Please check the specific reasons in
returned data.</reason>
         </statusInfo>
         <failedData>
            <failedUser>
               <user>
                  <firstName>Dev0091</firstName>
                  <lastName>New0091</lastName>
                  <displayName>Dev0091 New0091</displayName>
                  <emailAddress>testtrial0091@revenera.com</emailAddress>
                  <street>Pehani</street>
                  <city>Gaya</city>
                  <state>NA</state>
                  <zipcode>54879</zipcode>
                  <country>Ind</country>
                  <canLogin>true</canLogin>
                  <acctRolesList>
                     <acctRoles>
                        <account>
                           MaryKeys>
                              <id>123</id>
                           </account>
                        <roles>
                           <role>
                              primaryKeys>
```

```
<name>Portal User Role</name>
                               </primaryKeys>
                            </role>
                         </roles>
                     </acctRoles>
                  </acctRolesList>
               <reason>9999: [Incident# 1863-943] Please provide correct format of
country</reason>
            </failedUser>
         </failedData>
      </createUserResponse>
   </soapenv:Body>
</soapenv:Envelope>
Soap request with a valid country code
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</pre>
xmlns:urn="urn:v6.webservices.operations.flexnet.com">
   <soapenv:Header/>
   <soapenv:Body>
      <urn:createUserRequest>
         <!--1 or more repetitions:-->
         <urn:user>
            <urn:firstName>Dev0091</urn:firstName>
            <urn:lastName>New0091</urn:lastName>
            <urn:displayName>Dev0091 New0091</urn:displayName>
            <urn:emailAddress>testtrial0091@revenera.com</urn:emailAddress>
            <urn:street>Pehani</urn:street>
            <urn:city>Gaya</urn:city>
            <urn:state>NA</urn:state>
            <urn:zipcode>54879</urn:zipcode>
            <urn:country>IN</urn:country>
            <urn:canLogin>1</urn:canLogin>
            <urn:acctRolesList>
               <urn:acctRoles>
                  <urn:account>
                     <urn:primaryKeys>
                         <urn:id>123</urn:id>
                     </urn:primaryKeys>
                  </urn:account>
                  <urn:roles>
                     <urn:role>
                         <urn:primaryKeys>
                            <urn:name>Portal User Role</urn:name>
                         </urn:primaryKeys>
                     </urn:role>
                  </urn:roles>
               </urn:acctRoles>
            </urn:acctRolesList>
         </urn:user>
         <urn:opType>CREATE_OR_UPDATE</urn:opType>
      </urn:createUserRequest>
   </soapenv:Body>
</soapenv:Envelope>
```

#### Soap response for a request with a valid country code

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"</pre>
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance">
   <soapenv:Body>
      <createUserResponse xmlns="urn:v6.webservices.operations.flexnet.com">
         <statusInfo>
            <status>SUCCESS</status>
         </statusInfo>
         <responseData>
            <user>
               <uniqueId>HID-75</uniqueId>
               <userName>testtrial0091@revenera.com</userName>
              maryKeys>
                  <firstName>Dev0091</firstName>
                  <lastName>New0091</lastName>
                  <emailAddress>testtrial0091@revenera.com</emailAddress>
               </user>
         </responseData>
      </createUserResponse>
   </soapenv:Body>
</soapenv:Envelope>
```

### updateProduct API Call No Longer Fails to Update Product Fields

(Cases 03043898, 03047906, 03048567, 03050705; SWM-27193)

In the 2025.05 release, the **updateProduct** API of the ProductPackagingService web service (all versions) failed to update product fields such as description, part number, and product line. The API returned the following reason for the failure: "All input data in the request failed. Please check the specific reasons in returned data."

This issue has been resolved in the 2025.06 release. The API now correctly updates all relevant product fields as expected.

## **User Experience Issues Resolved in 2025.06**

The following issue related to user experience was addressed in the 2025.06 release.

# "View Server" or "Device" Page in End-User Portal Now Displaying Custom Logo

(Case 03030863, SWM-26718)

In the End-User Portal, the **Device** or **View Server** page (available from the **Devices** menu) no longer incorrectly displays the Revenera logo and "FlexNet Operations" product name, instead of a custom logo (if a custom logo has been specified).

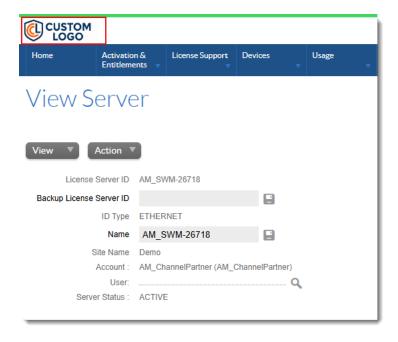


Figure 36: Example of the View Server page in the End-User Portal with a custom logo.



**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**).

## **Issues Resolved in 2025.05**

An issue in the following area was resolved in the FlexNet Operations 2025.05 release:

- Data Analytics Issues Resolved in 2025.05
- Entitlement Management Issues Resolved in 2025.05
- Export and Import Issues Resolved in 2025.05
- Security Issues Resolved in 2025.05
- User Experience Issues Resolved in 2025.05

## **Data Analytics Issues Resolved in 2025.05**

The following issue was resolved for the Analytics functionality in the 2025.05 release.

#### **Changes to Download Data and File Size in Analytics Dashboard**

(SWM-26838)

The following changes were made which affect the **Software Delivery Download History** report (available from the **Analytics** menu).

#### **Download Data**

Previously, no date filter was applied to the data in the **Software Delivery Download History** report; its figures were based on all data available at the time in the Data Warehouse and therefore lacked relevance from a business perspective.

To address this, a default filter is now active which restricts download data to the last 12 months. For example, on April 18th, 2025, the data fetched ranges from April 18, 2024 to April 18, 2025.

This filter allows producers to gain insights into software downloads within the past 12 months.

To fetch data for a shorter or longer period, producers can edit the DOWNLOAD\_START\_DATE filter in the Filters panel.

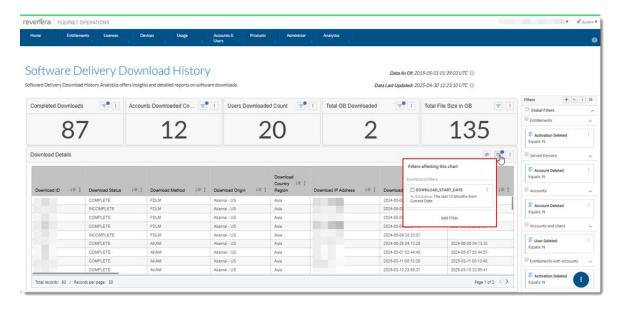


Figure 37: By default, the DOWNLOAD\_START\_DATE filter is set to show download data for the last 12 months from the current date.

#### **File Sizes**

File sizes are now measured using the decimal system (base 10), rather than binary conversion. This means that 1 KB equals 1000 bytes, not 1024 bytes as in the binary system.

This way of calculating data sizes is now consistent between the Analytics functionality and FlexNet Operations Reporter.

## **Entitlement Management Issues Resolved in 2025.05**

The following issue was resolved for entitlement management in the 2025.05 release.

### **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.

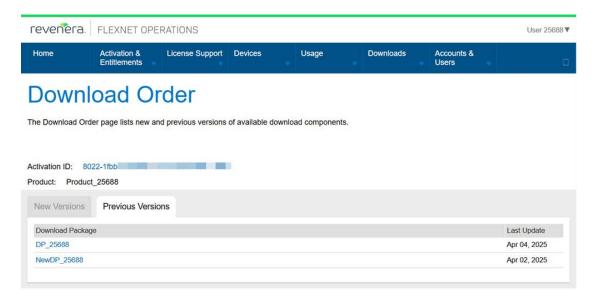


Figure 38: The **Download Order** page now shows expired or archived download packages on the **Previous Versions** tab.

## **Export and Import Issues Resolved in 2025.05**

The following issue related to the Data Export and Import functionality was resolved in the 2025.05 release.

#### **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:

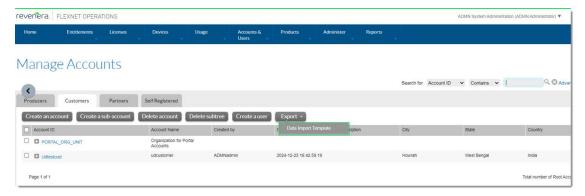


Figure 39: The Export menu now contains the correct option, Data Import Template, for exporting accounts information.

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).

### **Security Issues Resolved in 2025.05**

The following issue related to FlexNet Operations security was addressed in the 2025.05 release.

### **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 in 2025.05**

The following issue related to user experience was addressed in the 2025.05 release.

- System Roles No Longer Visible in Portals
- Resolved Issue of Incorrectly Formatted Page in End-User Portal

#### **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.

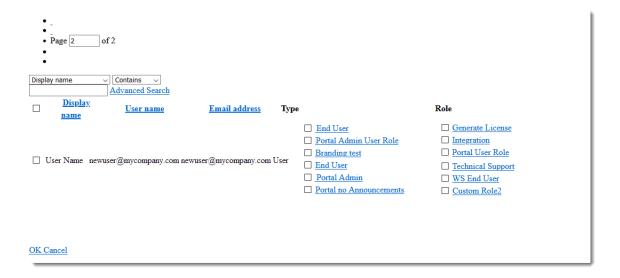
### **Resolved Issue of Incorrectly Formatted Page in End-User Portal**

(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:



This issue no longer occurs.

## **Issues Resolved in 2025.04**

An issue in the following area was resolved in the FlexNet Operations 2025.04 release:

Electronic Software Delivery Issues Resolved in 2025.04

### **Electronic Software Delivery Issues Resolved in 2025.04**

The following issue was resolved for Electronic Software Delivery (ESD) in the 2025.04 release.

### **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.

## **Issues Resolved in 2025.03**

Issues in the following areas were resolved in the FlexNet Operations 2025.03 release:

- Account and User Management Issues Resolved in 2025.03
- Electronic Software Delivery Issues Resolved in 2025.03
- Entitlement Management Issues Resolved in 2025.03
- Export and Import Issues Resolved in 2025.03
- Security Issues Resolved in 2025.03

## **Account and User Management Issues Resolved in 2025.03**

The following issues involving the management of accounts and users was resolved in the 2025.03 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.

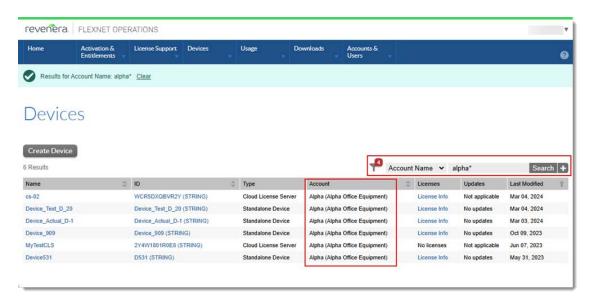


Figure 40: Example screenshot showing filtering devices by account name

## **Electronic Software Delivery Issues Resolved in 2025.03**

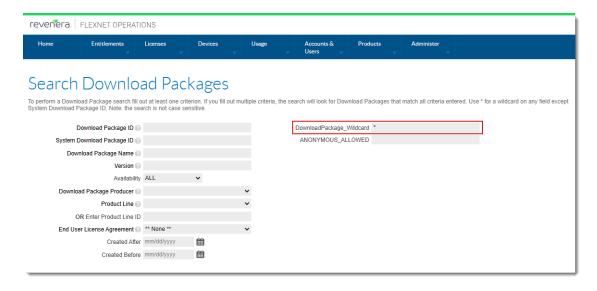
The following issue was resolved for Electronic Software Delivery (ESD) in the 2025.03 release.

#### **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 41:** 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.

## **Entitlement Management Issues Resolved in 2025.03**

The following issues were resolved for entitlement management in the 2025.03 release.

- 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

# 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:

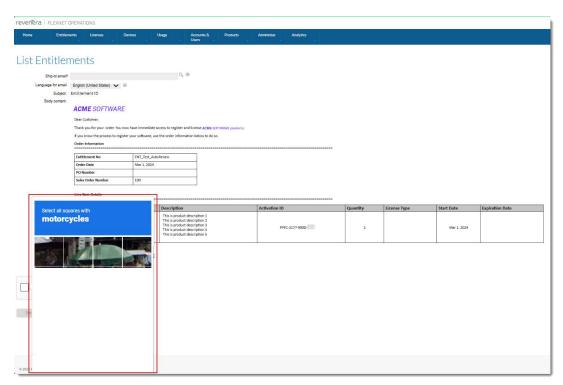


Figure 42: Entitlement email with corrupted reCAPTCHA panel

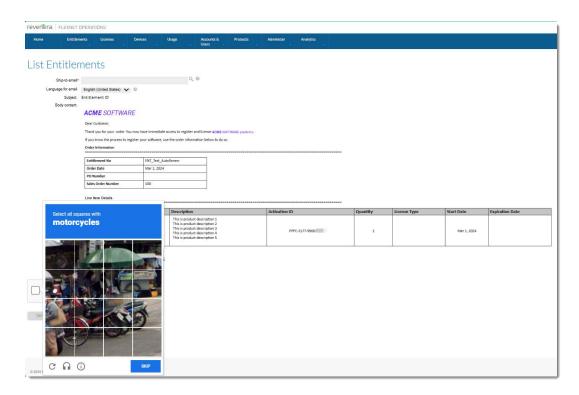


Figure 43: Entitlement email with fixed reCAPTCHA panel, showing all pictures.



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"):

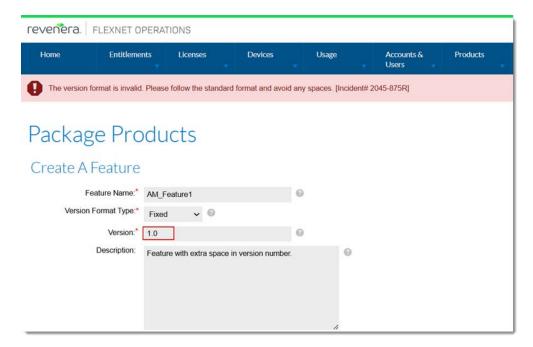


Figure 44: The Package Products | Create a Feature page with the red banner and error message

### Rearranging Features on the Products Page in the Producer Portal

(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.

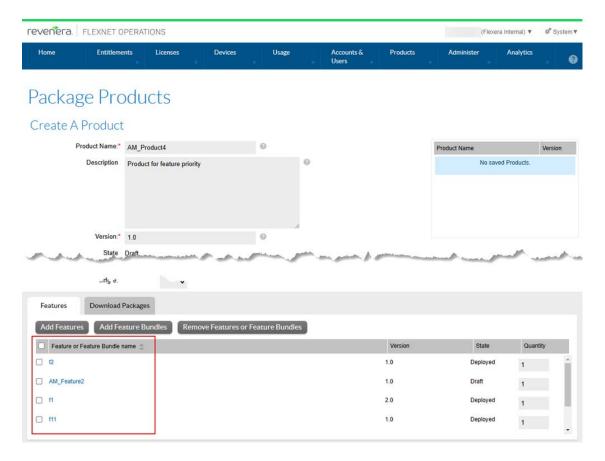


Figure 45: On the Package Products | Create a Product page, the order of features can now be changed.



**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?:

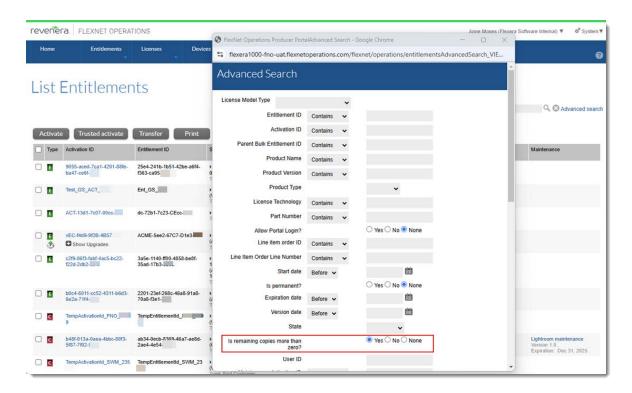


Figure 46: The Advanced search panel on the List Entitlements page



**Note** • A related known issue exists for entitlements for Embedded license models, see SWM-24042: Input Sanitization Disabled.

# 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.

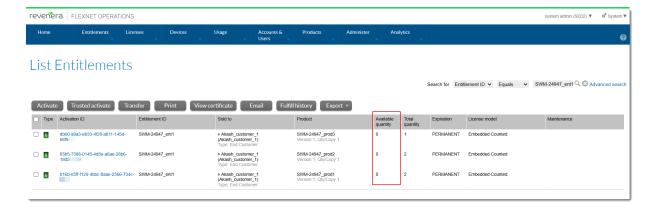
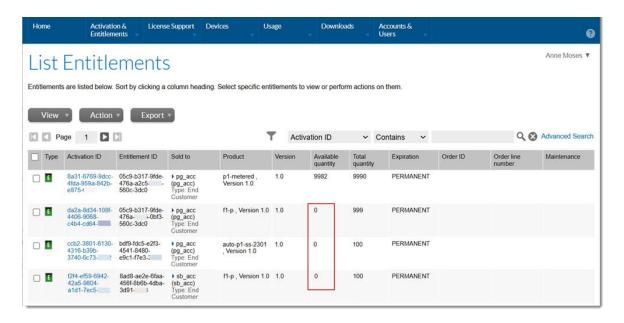


Figure 47: The List Entitlements page in the Producer Portal shows entitlements with zero available quantity only when the configuration option Show Line Items with Zero Copies by Default is selected.



**Figure 48:** An example of the **List Entitlements** page in the End-User Portal showing entitlements with zero available quantity.

## **Export and Import Issues Resolved in 2025.03**

The following issue related to the Data Export and Import functionality was resolved in the 2025.03 release.

- Import/Export Jobs No Longer Getting Stuck on Job Server Restart
- Retriggering Stuck Jobs for Bulk Upgrade Operations

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

(Case 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.

### **Security Issues Resolved in 2025.03**

The following issue related to FlexNet Operations security was addressed in the 2025.03 release.

### **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 2025.03 release, it is no longer possible to access information without the necessary permissions, by manipulating URL parameters.

## **Issues Resolved in 2025.02**

Issues in the following areas were resolved in the FlexNet Operations 2025.02 release:

- Entitlement Management Issues Resolved in 2025.02
- Security Issues Resolved in 2025.02
- User Experience Issues Resolved in 2025.02

## **Entitlement Management Issues Resolved in 2025.02**

The following issues were resolved for entitlement management in the 2025.02 release.

- Restrict Activations on Expired Line Items for FlexNet Publisher Products
- Resolved Issue With Entitlement Emails

### 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.

#### **Resolved Issue With Entitlement Emails**

(Case 02988204, 02988951; SWM-25192)

A change introduced in the 2025.01 release caused an issue which meant that no entitlement emails could be sent to end users. When attempting to send an entitlement email, the following error was displayed: Tenant *nnn* does not have an associated publisher/identity.

This issue has now been resolved, and entitlement emails are sent to end users.

### **Security Issues Resolved in 2025.02**

The following issue related to FlexNet Operations security was addressed in the 2025.02 release.

#### **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.

## **User Experience Issues Resolved in 2025.02**

The following issues involving user experience were resolved in the 2025.02 release.

- Increased Download Speed in End-User Portal
- Updated Link to Customer Community
- Removed Truncation in End-User Portal on View Server Page

### **Increased Download Speed in End-User Portal**

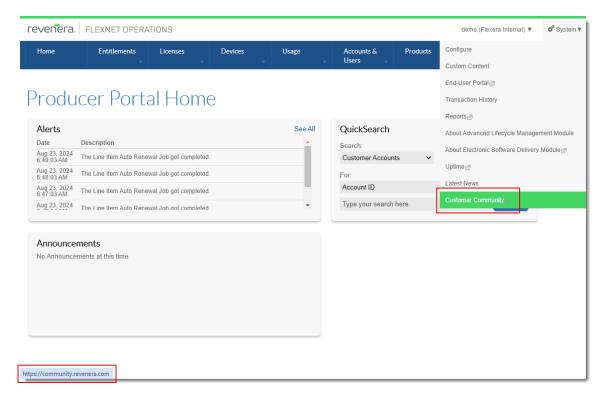
(Case 02776698, SWM-19906)

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.



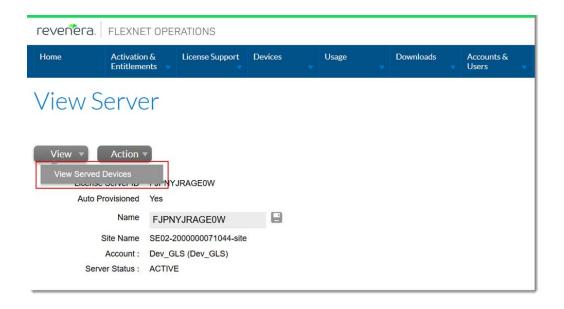
Any users attempting to access the previous URL, http://flexeracommunity.force.com/customer/, will be redirected to the new URL.

### 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:



## **Issues Resolved in 2025.01**

Issues in the following areas were resolved in the FlexNet Operations 2025.01 release:

- Entitlement Management Issues Resolved in 2025.01
- User Experience Issues Resolved in 2025.01

## **Entitlement Management Issues Resolved in 2025.01**

The following issues were resolved for entitlement management in the 2025.01 release.

- 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

### **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 <b>Waiting for confirmation</b> . Once a capability request is sent or uploaded, the status changes to <b>License generated</b> and the license count is updated on the device.
Selected	Selected	Status changes to <b>License generated</b> . 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 <b>License generated</b> . 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 <b>License generated</b> . 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.

## **User Experience Issues Resolved in 2025.01**

The following issue involving user experience was resolved in the 2025.01 release.

#### **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.

## **Known Issues**

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

# SWM-27343: Entitlement Notification Email Line Item Filtering Not Working as Expected

(Case 03047793)

In the 2025.05 release, an enhancement was introduced to allow producers to select individual line items on the **List Entitlement By Orders** page for inclusion in entitlement notification emails, rather than including all line items in the notification email by default. For a description of the enhancement, see Selecting Individual Line Items in Entitlement Notification Email.

However, this functionality does not work as intended. While the email preview correctly displays only the selected line items, the actual email sent to customers includes all line items, ignoring the applied filters.

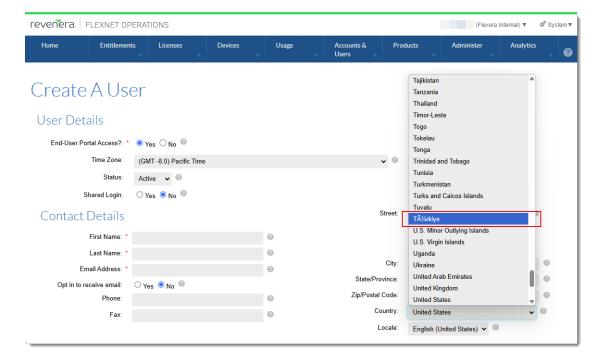
### SWM-27007: Country Name "Türkiye" Containing Invalid Characters

(Cases 03039999, 03048568)

The country name "Türkiye" is not displayed correctly and appears as "T $\tilde{A}^{1}/4$ rkiye". This occurs in the following cases:

- When creating a user or account in the Producer Portal
- When creating a user or a sub-account in the End-User Portal

This display error causes downstream issues, particularly when creating orders for users based in Türkiye, potentially affecting order processing and user data accuracy.



**Figure 49:** Screenshot showing the **Create A User** page in the Producer Portal, where the country name "Türkiye" appears incorrectly as "Týrkiye".

# SWM-23190: Analytics Menu and Configure Single Sign-On Page Not Accessible from Electronic Software Download Module Pages

In the Producer Portal, when navigating to any page that is part of the Electronic Software Download module, the **Analytics** menu and the **Configure Single Sign-On** option (under the **Administer** menu) are no longer displayed and therefore cannot be accessed.

The Electronic Software Download module includes the areas **Download Packages**, **Files**, **Agreements** and **Producers** under the **Products** menu.

As a temporary workaround, to access the **Analytics** menu, users should navigate away from an Electronic Software Download page (for example, by clicking **Home** in the navigation bar). The **Analytics** menu will become visible again and can be accessed.

# SWM-24928: Email Addresses for "File Created User Email" Missing in Software Delivery Download History Report

In the Software Delivery Download History report (available from the **Analytics** menu), the **File Details** table is not displaying email addresses in the **File Created User Email** column due to an issue with the field size. As a workaround, the **File Created User Email** column is populated with the same email addresses as those displayed in the **File Uploaded User Email** column, because these email addresses typically are identical.

#### **SWM-24042: Input Sanitization Disabled**

(Case 02889178)

The FlexNet Operations 2024.12 release introduced limitations to the characters allowed in certain Producer Portal fields (see Security Issues Resolved in 2024.12). The following special characters were no longer allowed in a number of input fields to protect against injection attacks:

This functionality has now been disabled to allow further impact assessment. This means that the character restrictions placed on fields listed in Security Issues Resolved in 2024.12 are no longer in force.

#### 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-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-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.



**Note -** The following changes have recently been made to the User Account Hierarchy Service web service:

- From the 2023.07 release onwards, it is not possible to create users with a mismatched user name and email address. See "createUser Operation in User Account Hierarchy Service Web Service No Longer Allows Mismatch Between User Name and Email Address" in the FlexNet Operations 2023 Release Notes.
- From the 2023.10 release onwards, users cannot update their email address to be different from their user name. See "updateUser Operation in User Account Hierarchy Service Web Service No Longer Allows Mismatch Between User Name and Email Address" in the FlexNet Operations 2023 Release Notes.

# 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.

#### FNO-68962: Invalid Characters in Device ID Causing Issues

When the FlexNet Embedded toolkit creates a device ID that contains an invalid character, an error occurs.

The following control characters are not allowed in device names or the device ID:

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

## 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.

- Communication of Changes in Data Access API, Data Share, and Analytics
- Plug-in Upgrade Needed for High-Speed File Uploads
- Handling UI Conflicts When Using a Custom CSS for the End-User Portal

#### Communication of Changes in Data Access API, Data Share, and Analytics

(SWM-27132)

Revenera is committed to addressing customer requests and enhancement suggestions by expanding the existing Data Access API, the Data Share, and Analytics functionality. Starting with the 2025.06 release, any modifications resulting from these requests will be managed and communicated as follows.

Refer to the following sections for details:

- Addition of Fields and Columns
- Examples for Additional Columns
- Modification or Removal of Fields and Columns
- Examples for Removing or Changing Columns
- Consumer Implementation Requirements

#### **Addition of Fields and Columns**

Any additional fields or columns required for enhancing data accessibility or extending functionality will be incorporated directly into the existing version of the Data Access API and Data Share views.

There is no impact on the Analytics functionality, as any newly added fields will not appear in reports by default. Customers can choose to include them as needed.

These changes will not be announced prior to implementation; however, any schema modifications will be documented and communicated through release notes.

#### **Examples for Additional Columns**

This section provides examples illustrating how new fields will appear in:

- Data Share
- Data Access API
- Analytics

#### **Data Share**

The following screenshots show examples for additional columns in the Data Share.

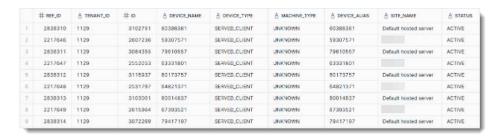


Figure 50: An example view of SEC\_VW\_DEVICE before a change.



 $\textbf{Figure 51:} \ \, \text{An example view of SEC\_VW\_DEVICE after columns have been added, with additions highlighted.}$ 

#### Data Access API

The following screenshots show examples for additional fields in the **device** data set of the Data Access API.

```
"DeviceID": ' I",
"DeviceType": "SERVER",
"DeviceMachineType": "UNKNOWN",
"Alias/Device Name": "ALM_CM51",
"SiteName": "",
"Status": "ACTIVE",
"Type": "FLX_SERVER",
"VMName": "",
"IDType": "STRING",
"BackupDeviceID": "",
"PublisherName": "fnetest",
"DeviceSeries": "",
"Notes": "",
"DeviceUserEmail": "",
"DeviceAccountID": "anand_cust",
"DeviceAccountName": "anand_cust",
"LastModifiedDate": "2025-02-05 00:46:34.510",
"CreateDate": "2023-01-05 01:42:52.743",
"ConsumedCountDelta": "10",
"EntitlementID"; "d304-d112-67a6- -39fc-ad8e-aa20"
"QtyOnDevice": "10",
"ActiveActivation": "1",
"BaseProduct": "",
"ProductName": "AutoProvisionedAnand",
"ProductVersion": "1.0",
"PartNumber": "",
"IsPermanent": "Yes",
"ExpirationDate": "9999-12-31 88:88:88.888",
"VendorDictionary": "",
"ProductDeleted": "N",
"ActivationDeleted": "N",
"UserDeleted": "N",
"AccountDeleted": "N",
"DeviceDeleted": "N"
```

Figure 52: An example view of the device dataset before a change.

```
"DeviceID":
"DeviceType": "SERVER",
"DeviceMachineType": "UNKNOWN",
"Alias/Device Name": "ALM_CMS1",
"SiteName": "",
"Status": "ACTIVE",
"Type": "FLX_SERVER",
"VMName": "",
"IDType": "STRING",
"BackupDeviceID": "",
"PublisherName": "fnetest",
"DeviceSeries": "",
"Notes": "",
 "DeviceUserEmail": "",
"DeviceAccountID": "anand_cust",
"DeviceAccountName": "anand_cust",
"LastModifiedDate": "2025-02-05 00:46:34.510",
"CreateDate": "2023-01-05 01:42:52.743",
"ConsumedCountDelta": "10",
"EntitlementID": "d304-d112-67a6- 39fc-ad8e-aa20",
"QtyOnDevice": "10",
"LicenseStatus": "LICENSE_GENERATED",
"ActivationID": "2d5c-7ald- -8750-5474-6fb4-e287",
"ActiveActivation": "1",
"BaseProduct": "",
"ProductName": "AutoProvisionedAnand",
"ProductVersion": "1.0",
"PartNumber": "",
"IsPermanent": "Yes",
"ExpirationDate": "9999-12-31 00:00:00.000",
"VendorDictionary": "",
"ProductDeleted": "N",
"ActivationDeleted": "N",
"UserDeleted": "N",
"AccountDeleted": "N",
 DeviceDeleted":
"DeviceCreatedBy";
 "DeviceUpdatedBy":
"AddOnCreatedBy": '
"AddOnUpdatedBy": 1
```

**Figure 53:** An example view of the **device** dataset after fields have been added, with additions highlighted.

#### **Analytics**

The following screenshot shows an example of the Devices Details table and newly added columns.

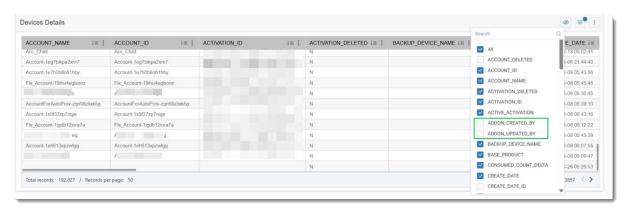


Figure 54: An example view of the Devices Details table in Analytics, with newly added columns being unselected by default.

#### **Modification or Removal of Fields and Columns**

If any fields or columns need to be modified or deprecated due to architectural changes, compliance updates, or optimization efforts, a structured communication approach will be followed:

- Stakeholders will be informed well in advance through official communication channels (release notes, documentation updates).
- Depending on the nature of the update, a new API version will be introduced.
- Legacy versions will be maintained for a defined period to facilitate migration.

### **Examples for Removing or Changing Columns**

This section provides examples illustrating the removal of columns or fields in:

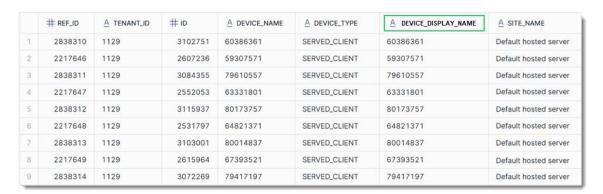
- Data Share
- Data Access API

#### **Data Share**

As an example, the following screenshots shows the renaming of the DEVICE\_ALIAS column to DEVICE\_DISPLAY\_NAME and the deletion of the MACHINE\_TYPE column in the Data Share.



**Figure 55:** An example view of SEC\_VW\_DEVICE before removing the MACHINE\_TYPE column and changing the name of the DEVICE\_ALIAS column.



**Figure 56:** The same view of SEC\_VW\_DEVICE, where the MACHINE\_TYPE column has been removed. The DEVICE\_ALIAS column has been renamed to DEVICE\_DISPLAY\_NAME.

#### Data Access API

This screenshot illustrates the following modifications in the Data Access API:

- changing DeviceAlias to DeviceDisplayName and
- deleting the key **DeviceMachineType**.

```
"DeviceID": " ",
    "DeviceType": "SERVER",
   "DeviceMachineType": "UNKNOWN",
   "DeviceAlias": "ALM_CMS1",
"SiteName": "",
    "Status": "ACTIVE",
    "Type": "FLX_SERVER",
   "VMName": "",
   "IDType": "STRING",
   "BackupDeviceID": "",
    "PublisherName": "fnetest",
    "DeviceSeries": "",
    "Notes": "",
    "DeviceUserEmail": "",
   "DeviceAccountID": "anand_cust",
    "DeviceAccountName": "anand_cust",
   "LastModifiedDate": "2025-02-05 00:46:34.510",
    "CreateDate": "2023-01-05 01:42:52.743",
   "ConsumedCountDelta": "10",
   "EntitlementID": "
    "QtyOnDevice": "10",
   "LicenseStatus": "LICENSE_GENERATED",
"ActivationID": "
   "ActiveActivation": "1",
   "BaseProduct": "",
   "ProductName": "AutoProvisionedAnand",
   "ProductVersion": "1.0",
   "PartNumber": "",
   "IsPermanent": "Yes",
    "ExpirationDate": "9999-12-31 00:00:00.000",
    "VendorDictionary": "",
    "ProductDeleted": "N",
   "ActivationDeleted": "N",
    "UserDeleted": "N",
   "AccountDeleted": "N",
    "DeviceDeleted": "N"
3,
```

Figure 57: An example view of the device dataset before renaming and removing fields.

```
"DeviceID": " )",
 "DeviceType": "SERVER",
"DeviceDisplayName": "ALM_CMS1",
"SiteName": "",
"Status": "ACTIVE",
"Type": "FLX_SERVER",
"VMName": "",
"IDType": "STRING".
"BackupDeviceID": ""
"PublisherName": "fnetest",
"DeviceSeries": "",
"Notes": ""
"DeviceUserEmail": "",
"DeviceAccountID": "anand_cust",
 "DeviceAccountName": "anand_cust",
"LastModifiedDate": "2025-02-05 00:46:34.510",
 "CreateDate": "2023-01-05 01:42:52.743",
"ConsumedCountDelta": "10",
"EntitlementID": "
"QtyOnDevice": "10",
"LicenseStatus": "LICENSE_GENERATED",
"ActivationID": "
"ActiveActivation": "1",
"BaseProduct": "",
"ProductName": "AutoProvisionedAnand",
"ProductVersion": "1.0",
"PartNumber": "",
"IsPermanent": "Yes",
"ExpirationDate": "9999-12-31 00:00:00.000",
"VendorDictionary": "",
"ProductDeleted": "N"
"ActivationDeleted": "N",
 "UserDeleted": "N",
"AccountDeleted": "N",
"DeviceDeleted": "N"
```

Figure 58: An example view of the device dataset where fields have been renamed and removed.

## **Consumer Implementation Requirements**

To avoid any integration breakage, customers are required to implement their consumers as follows:

- Ensure consumers ignore unknown fields or column in the Data Access API and Data Share.
- Adopt robust parsing logic to improve data integrity, such as using keys and names instead of relying on indexes or hard-coded structures.

## 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.

## 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).

# **SOAP API Change Log**

The following sections describe the changes that have been made to the FlexNet Operations SOAP API in the FlexNet Operations 2025 releases to date:

- Change Log for 2025.06
- Change Log for 2025.05
- Change Log for 2025.02

## Change Log for 2025.06

The following SOAP API changes were made in 2025.06:

- Changelog: New API Commands to Report Custom Attributes for Entitlements and Line Items
- Change Log: Optional vendorAuthString parameter in getFeaturesQueryRequest API in ProductPackagingService v3

## Changelog: New API Commands to Report Custom Attributes for Entitlements and Line Items

The 2025.06 release introduced a number of enhancements that enables users to search using specific custom entitlement attributes when using the SOAP API getActivatableItemsQuery command in the EntitlementOrderService wsdl. The new API command returns all entitlements and line items with their custom attributes. Previously, the request only supported searching using custom license attributes.

To implement these new actions, the EntitlementOrderService.wsdl file and its associated .xsd files have been updated from v8 to v9:

```
/schema-public/v9/EntitlementOrderService.wsdl
/schema-public/v9/bulkEntitlementTypes.xsd
/schema-public/v9/commonEntitlementTypes.xsd
/schema-public/v9/commonIdentifierTypes.xsd
/schema-public/v9/commonTypes.xsd
/schema-public/v9/entitlementLifeCycleTypes.xsd
/schema-public/v9/entitlementLineItemTypes.xsd
/schema-public/v9/entitlementOrderTypes.xsd
/schema-public/v9/simpleEntitlementTypes.xsd
```

In additional to updating the version, additions were made to the following files:

- EntitlementOrderService.wsdl
- entitlementLineItemTypes.xsd
- entitlementOrderTypes.xsd
- entitlementAttributeTypes.xsd, a new .xsd file that was added in this release



**Note** • This enhancement was tracked in SWM-19774 (see also New API Commands to Report Custom Attributes for Entitlements and Line Items).

#### EntitlementOrderService.wsdl

In addition to updating the version number from 8 to 9 in multiple locations in the ManageDeviceService.wsdl file, the following additional changes were made. Additions are highlighted.

```
<message name="unlinkMaintenanceLineItemResponse">
        <part name="msgparameters" element="tns:unlinkMaintenanceLineItemResponse"/>
     </message>
     <message name="searchEntitlementAttributeRequest">
        <part name="msgparameters" element="tns:searchEntitlementAttributeRequest"/>
     </message>
     <message name="searchEntitlementAttributeResponse">
         <part name="msgparameters" element="tns:searchEntitlementAttributeResponse"/>
     <message name="getEntitlementAttributeCountRequest">
        <part name="msgparameters" element="tns:getEntitlementAttributeCountRequest"/>
     </message>
     <message name="getEntitlementAttributeCountResponse">
         <part name="msgparameters" element="tns:getEntitlementAttributeCountResponse"/>
    </message>
2
     <operation name="unlinkMaintenanceLineItem">
        <input message="tns:unlinkMaintenanceLineItemRequest"/>
        <output message="tns:unlinkMaintenanceLineItemResponse"/>
     </operation>
     <operation name="getEntitlementsAttributeQuery">
        <input message="tns:searchEntitlementAttributeRequest"/>
        <output message="tns:searchEntitlementAttributeResponse"/>
     </operation>
     <operation name="getEntitlementAttributeCount">
        <input message="tns:getEntitlementAttributeCountRequest"/>
        <output message="tns:getEntitlementAttributeCountResponse"/>
    </operation>
3
    <operation name="getEntitlementsQuery">
        <soap:operation style="document"/>
        <input>
             <soap:body use="literal" />
        </input>
        <output>
             <soap:body use="literal" />
        </output>
     </operation>
     <operation name="getEntitlementsAttributeQuery">
        <soap:operation style="document"/>
        <input>
             <soap:body use="literal" />
        </input>
         <output>
             <soap:body use="literal" />
        </output>
     </operation>
```

```
<operation name="getEntitlementCount">
4
         <soap:operation style="document"/>
         <input>
             <soap:body use="literal" />
         </input>
         <output>
             <soap:body use="literal" />
         </output>
     </operation>
     <operation name="getEntitlementAttributeCount">
         <soap:operation style="document"/>
         <input>
             <soap:body use="literal" />
         </input>
         <output>
             <soap:body use="literal" />
         </output>
     </operation>
```

#### entitlementLineItemTypes.xsd

In addition to updating the version number from 8 to 9 in the entitlementLineItemTypes.xsd file, the following additional changes were made. Additions are highlighted.

```
<xs:element name="sortBys" type="tns:activatableItemsSortBys" minOccurs="0"/>
    <xs:element name="isEmbeddedLicenseModel" type="xs:boolean" minOccurs="0"/>
    <xs:element name="lineItemState" type="tns:StateQueryType" minOccurs="0"/>
    <xs:element name="soldToDisplayName" type="tns:SimpleQueryType" minOccurs="0"/>
    <xs:element name="productLine" type="tns:SimpleQueryType" minOccurs="0"/>
    <xs:element name="expiresIn" type="tns:DurationType" minOccurs="0"/>
     <xs:element name="activatableItemOwnersSearch" type="tns:ActivatableItemOwnersType" minOccurs="0"/>
    <xs:element name="fetchCreatedBy" type="xs:boolean" minOccurs="0"/>
2
    <xs:element name="fetchLastModifiedBy" type="xs:boolean" minOccurs="0"/>
    <xs:element name="activatableItemOwners" type="xs:boolean" minOccurs="0"/>
    <xs:element name="transferredFromLineItem" type="xs:string" minOccurs="0"/>
    <xs:element name="splitFromLineItem" type="xs:string" minOccurs="0"/>
    <xs:element name="activatableItemOwners" type="tns:ActivatableItemOwnersType" minOccurs="0"/>
    <xs:element name="unlinkMaintenanceLineItemRequest" type="tns:unlinkMaintenanceLineItemRequestType"/>
    <xs:element name="unlinkMaintenanceLineItemResponse" type="tns:unlinkMaintenanceLineItemResponseType"/>
    <xs:complexType name="ActivatableItemOwnersType">
        <xs:sequence>
            <xs:element name="activatableItemOwner" type="xs:string" minOccurs="0" maxOccurs="unbounded"/>
        </xs:sequence>
    </xs:complexType>
```

#### entitlementOrderTypes.xsd

In addition to updating the version number from 8 to 9 in the entitlementOrderItemTypes.xsd file, the following additional changes were made. Additions are highlighted.

#### # Change

#### entitlementAttributeTypes.xsd

The entitlementAttributeTypes.xsd file has been added in this release. It contains the following Elements:

```
<xs:complexType name="searchEntitlementAttributeDataType">
    <xs:sequence>
        <xs:element name="entitlementId" type="tns:SimpleQueryType" minOccurs="0"/>
        <xs:element name="activationIds" type="tns:activationIdList" minOccurs="0" />
        <xs:element name="entDescription" type="tns:SimpleQueryType" minOccurs="0"/>
        <xs:element name="productName" type="tns:SimpleQueryType" minOccurs="0"/>
        <xs:element name="productVersion" type="tns:SimpleQueryType" minOccurs="0"/>
        <xs:element name="productType" type="tns:ProductType" minOccurs="0"/>
        <xs:element name="partNumber" type="tns:SimpleQueryType" minOccurs="0"/>
        <xs:element name="isBulk" type="xs:boolean" minOccurs="0"/>
        <xs:element name="soldTo" type="tns:SimpleOueryType" minOccurs="0"/>
        <xs:element name="shipToEmail" type="tns:SimpleQueryType" minOccurs="0"/>
        <xs:element name="contactEmail" type="tns:SimpleQueryType" minOccurs="0"/>
        <xs:element name="shipToAddress" type="tns:SimpleQueryType" minOccurs="0"/>
        <xs:element name="emailTemplateVariation" type="tns:SimpleQueryType" minOccurs="0"/>
        <xs:element name="startDate" type="tns:DateQueryType" minOccurs="0"/>
        <xs:element name="isPermanent" type="xs:boolean" minOccurs="0"/>
        <xs:element name="expirationDate" type="tns:DateQueryType" minOccurs="0"/>
        <xs:element name="isAutoRenewal" type="xs:boolean" minOccurs="0"/>
        <xs:element name="renewalInterval" type="tns:DurationType" minOccurs="0"/>
        <xs:element name="renewalExpirationDate" type="tns:DateQueryType" minOccurs="0"/>
        <xs:element name="createdOn" type="tns:DateQueryType" minOccurs="0"/>
        <xs:element name="versionDate" type="tns:DateQueryType" minOccurs="0"/>
        <xs:element name="lastModifiedDate" type="tns:DateQueryType" minOccurs="0"/>
        <xs:element name="description" type="tns:SimpleQueryType" minOccurs="0"/>
        <xs:element name="state" type="tns:StateQueryType" minOccurs="0"/>
        <xs:element name="licenseTechnology" type="tns:SimpleQueryType" minOccurs="0"/>
        <xs:element name="createdUserId" type="tns:SimpleQueryType" minOccurs="0"/>
        <xs:element name="accountUnitName" type="tns:PartnerTierQueryType" minOccurs="0"/>
        <xs:element name="currentOwnerName" type="tns:SimpleQueryType" minOccurs="0"/>
        <xs:element name="maintStartDate" type="tns:DateQueryType" minOccurs="0"/>
        <xs:element name="maintIsPermanent" type="xs:boolean" minOccurs="0"/>
        <xs:element name="maintExpirationDate" type="tns:DateQueryType" minOccurs="0"/>
        <xs:element name="entitlementAttributes" type="tns:entCustomAttributesQueryListType"</pre>
minOccurs="0"/>
    </xs:sequence>
</xs:complexType>
```

```
<xs:complexType name="entitlementAttributeDataType">
    <xs:choice>
                                                type="tns:simpleEntitlementDataType" minOccurs="0"/>
        <xs:element name="simpleEntitlement"</pre>
        <xs:element name="bulkEntitlement"</pre>
                                              type="tns:bulkEntitlementDataType" minOccurs="0" />
    </xs:choice>
</xs:complexType>
<xs:complexType name="searchEntitlementAttributeRequestType">
    <xs:sequence>
        <xs:element name="entitlementAttributeSearchCriteria"</pre>
type="tns:searchEntitlementAttributeDataType"/>
        <xs:element name="batchSize" type="xs:integer"/>
        <xs:element name="pageNumber" type="xs:integer" minOccurs="0"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="searchEntitlementAttributeResponseType">
    <xs:sequence>
        <xs:element name="statusInfo"</pre>
                                         type="tns:StatusInfoType"/>
        <xs:element name="entitlement" type="tns:entitlementAttributeDataType" minOccurs="0"</pre>
maxOccurs="unbounded"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="getEntitlementCountAttributeRequestType">
    <xs:sequence>
        <xs:element name="queryParams" type="tns:searchEntitlementAttributeDataType"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="getEntitlementCountAttributeResponseType">
        <xs:element name="statusInfo"</pre>
                                         type="tns:StatusInfoType"/>
        <xs:element name="count" type="xs:integer" minOccurs="0"/>
    </xs:sequence>
</xs:complexType>
<xs:element name="searchEntitlementAttributeRequest" type="tns:searchEntitlementAttributeRequestType"/>
<xs:element name="searchEntitlementAttributeResponse" type="tns:searchEntitlementAttributeResponseType"/>
<xs:element name="getEntitlementAttributeCountRequest"</pre>
type="tns:getEntitlementCountAttributeRequestType"/>
<xs:element name="getEntitlementAttributeCountResponse"</pre>
type="tns:getEntitlementCountAttributeResponseType"/>
```

## Change Log: Optional vendorAuthString parameter in getFeaturesQueryRequest API in ProductPackagingService v3

The **getFeaturesQueryRequest** API in the ProductPackagingService web service (version 3) supports the new optional parameter **vendorAuthString**. Producers can use the new parameter to retrieve the vendor auth string alongside other feature properties and to query feature information.



**Note** • This enhancement was tracked in SWM-27118 (see also Optional vendorAuthString parameter in getFeaturesQueryRequest API in ProductPackagingService v3).

Modifications were made to the following file:

featureTypes.xsd

### featureTypes.xsd

The following changes were made to this file. Additions are highlighted.

```
<xs:complexType name="featureDataType">
        <xs:sequence>
             <xs:element name="featureName" type="xs:string"/>
             <xs:element name="versionFormat" type="tns:VersionFormatType"/>
             <xs:element name="version" type="xs:string" minOccurs="0"/>
             <xs:element name="maxVersion" type="xs:string" minOccurs="0"/>
             <xs:element name="description" type="xs:string" minOccurs="0"/>
             <xs:element name="aggregationType" type="tns:AggregationType" minOccurs="0"/>
             <xs:element name="vendorAuthString" type="xs:string" minOccurs="0"/>
             <xs:element name="featureOverrideParams" type="tns:featureOverrideParamsType" minOccurs="0"/>
        </xs:sequence>
    </xs:complexType>
    <xs:complexType name="featureOverrideParamsType">
        <xs:sequence>
             <xs:element name="vendorString" type="xs:string" minOccurs="0"/>
             <xs:element name="notice" type="xs:string" minOccurs="0"/>
             <xs:element name="borrowable" type="xs:string" minOccurs="0"/>
             <xs:element name="serialNumber" type="xs:string" minOccurs="0"/>
             <xs:element name="dupGroup" type="tns:dupGroupDataType" minOccurs="0"/>
        </xs:sequence>
    </xs:complexType>
    <xs:complexType name="featureQueryDataType">
3
        <xs:sequence>
             <xs:element name="uniqueId" type="xs:string"/>
             <xs:element name="featureName" type="xs:string"/>
             <xs:element name="versionFormat" type="tns:VersionFormatType"/>
             <xs:element name="version" type="xs:string" minOccurs="0"/>
             <xs:element name="description" type="xs:string" minOccurs="0"/>
             <xs:element name="state" type="tns:StateType"/>
             <xs:element name="vendorAuthString" type="xs:string" minOccurs="0"/>
             <xs:element name="featureOverrideParams" type="tns:featureOverrideParamsType" minOccurs="0"/>
        </xs:sequence>
    </xs:complexType>
```

```
<xs:complexType name="updateFeatureDataType">
    <xs:sequence>
        <xs:element name="featureIdentifier" type="tns:featureIdentifierType" />
        <xs:element name="featureName" type="xs:string" minOccurs="0"/>
        <xs:element name="versionFormat" type="tns:VersionFormatType" minOccurs="0"/>
        <xs:element name="version" type="xs:string" minOccurs="0"/>
        <xs:element name="maxVersion" type="xs:string" minOccurs="0"/>
        <xs:element name="description" type="xs:string" min0ccurs="0"/>
        <xs:element name="vendorAuthString" type="xs:string" minOccurs="0"/>
        <xs:element name="aggregationType" type="tns:AggregationType" minOccurs="0"/>
        <xs:element name="featureOverrideParams" type="tns:featureOverrideParamsType" minOccurs="0"/>
    </xs:sequence>
</xs:complexType>
<xs:complexType name="featureQueryParametersType">
    <xs:sequence>
        <xs:element name="featureName" type="tns:SimpleQueryType" minOccurs="0" nillable="true"/>
        <xs:element name="version" type="tns:SimpleQueryType" minOccurs="0" nillable="true"/>
        <xs:element name="versionFormat" type="tns:VersionFormatQueryType" minOccurs="0" nillable="true"/>
        <xs:element name="description" type="tns:SimpleQueryType" minOccurs="0" nillable="true"/>
        <xs:element name="state" type="tns:StateQueryType" minOccurs="0" nillable="true"/>
        <xs:element name="creationDate" type="tns:DateQueryType" minOccurs="0" nillable="true"/>
        <xs:element name="lastModifiedDate" type="tns:DateQueryType" minOccurs="0" nillable="true"/>
        <xs:element name="vendorAuthString" type="tns:SimpleQueryType" minOccurs="0" nillable="true"/>
    </xs:sequence>
</xs:complexType>
```

## Change Log for 2025.05

## **Zero Mapping of Activation IDs on Cloud License Servers**

The 2025.05 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.

To implement these new actions, the ManageDeviceService.wsdl file and its associated manageDeviceTypes.xsd file have been updated to v7 and modifications have been made.



Note - This enhancement was tracked in SWM-25022.

#### ManageDeviceService.wsdl

In addition to updating the version number from 6 to 7 in multiple locations in the ManageDeviceService.wsdl file, the following additional changes were made. Additions are highlighted.

```
<message name="decrementAddonLineItemsResponse">
        <part name="msgparameters" element="tns:decrementAddonLineItemsResponse"/>
     </message>
     <message name="zeroCountAddonLineItemsRequest">
        <part name="msgparameters" element="tns:zeroCountAddonLineItemsRequest"/>
    </message>
     <message name="zeroCountAddonLineItemsResponse">
        <part name="msgparameters" element="tns:zeroCountAddonLineItemsResponse"/>
    </message>
    <operation name="incrementAddonLineItems">
2
        <input message="tns:incrementAddonLineItemsRequest"/>
        <output message="tns:incrementAddonLineItemsResponse"/>
     </operation>
     <operation name="zeroCountAddonLineItems">
        <input message="tns:zeroCountAddonLineItemsRequest"/>
        <output message="tns:zeroCountAddonLineItemsResponse"/>
    </operation>
    <operation name="incrementAddonLineItems">
3
        <soap:operation style="document"/>
        <input>
             <soap:body use="literal" />
        </input>
        <output>
             <soap:body use="literal" />
        </output>
     </operation>
     <operation name="zeroCountAddonLineItems">
        <soap:operation style="document"/>
        <input>
             <soap:body use="literal" />
        </input>
        <output>
             <soap:body use="literal" />
        </output>
    </operation>
```

#### manageDeviceTypes.xsd

In addition to updating the version number from 6 to 7 in multiple locations in the manageDeviceTypes.xsd file, the following Elements were added.

#### # Change

## Change Log for 2025.02

## **Ability to List Fulfillment And License Information for Specified Host**

The LicenseFulfillmentService.wsdl has been updated to v2. It includes the following:

- New getHostQuery operation to list fulfillment and license information by hostid.
- New getHostCount operation to get the number of hosts that fit certain criteria. This number can be used as batchSize input in getHostQuery.



**Note** • These enhancements were tracked in SWM-22714 and SWM-25245, respectively (see Returning Fulfillment and License Information for Non-Embedded Technologies Using Web Services and New Operation for Getting Host Count in License Service SOAP Web Service).

#### **Changes to the WSDL and XSD Files**

The LicenseFulfillmentService.wsdl file includes a reference to the licenseFulfillmentTypes.xsd file, and that .xsd file refers to the following additional .xsd files:

- licenseFulfillmentTypes.xsd
- trustedOfflineActivationTypes.xsd
- fulfillmentTypes.xsd
- commonTypes.xsd

#### LicenseFulfillmentService.wsdl

In addition to updating the version number from 1 to 2 in multiple locations in the LicenseFulfillmentService.wsdl file, the following additional changes were made. Additions are highlighted.

```
Change
    <message name="createLicenseResponse">
        <part name="msgparameters" element="tns:createLicenseResponse"/>
    </message>
    <message name="createCVDFulfillmentsRequest">
        <part name="msgparameters" element="tns:createCVDFulfillmentsRequest"/>
    </message>
     <message name="createCVDFulfillmentsResponse">
        <part name="msgparameters" element="tns:createCVDFulfillmentsResponse"/>
    </message>
2
    <message name="createLicensesAsBatchAndConsolidateResponse">
        <part name="msgparameters" element="tns:createLicensesAsBatchAndConsolidateResponse"/>
    </message>
    <message name="createCVDLicenseFileRequest">
        <part name="msgparameters" element="tns:createCVDLicenseFileRequest"/>
     <message name="createCVDLicenseFileResponse">
        <part name="msgparameters" element="tns:createCVDLicenseFileResponse"/>
    </message>
3
    <message name="transferHostResponse">
        <part name="msgparameters" element="tns:transferHostResponse"/>
    </message>
     <message name="getHostQueryRequest">
        <part name="msgparameters" element="tns:getHostQueryRequest"/>
    </message>
     <message name="getHostQueryResponse">
        <part name="msgparameters" element="tns:getHostQueryResponse"/>
    </message>
     <message name="getHostCountRequest">
        <part name="msgparameters" element="tns:getHostCountRequest"/>
     </message>
     <message name="getHostCountResponse">
        <part name="msgparameters" element="tns:getHostCountResponse"/>
    </message>
4
    <operation name="createLicense">
        <input message="tns:createLicenseRequest"/>
    <output message="tns:createLicenseResponse"/>
    </operation>
    <operation name="createCVDFulfillments">
        <input message="tns:createCVDFulfillmentsRequest"/>
        <output message="tns:createCVDFulfillmentsResponse"/>
    </operation>
```

```
† Change
```

```
5
     <operation name="createLicensesAsBatchAndConsolidate">
        <input message="tns:createLicensesAsBatchAndConsolidateRequest"/>
        <output message="tns:createLicensesAsBatchAndConsolidateResponse"/>
     </operation>
     <operation name="createCVDLicenseFile">
        <input message="tns:createCVDLicenseFileRequest"/>
        <output message="tns:createCVDLicenseFileResponse"/>
    </operation>
    <operation name="transferHost">
6
        <input message="tns:transferHostRequest"/>
        <output message="tns:transferHostResponse"/>
     </operation>
     <operation name="getHostQuery">
        <input message="tns:getHostQueryRequest"/>
        <output message="tns:getHostQueryResponse"/>
    </operation>
    <operation name="getHostCount">
       <input message="tns:getHostCountRequest"/>
        <output message="tns:getHostCountResponse"/>
    </operation>
    <operation name="createLicense">
7
        <soap:operation style="document"/>
       <input>
           <soap:body use="literal"/>
        </input>
        <output>
           <soap:body use="literal"/>
        </output>
    </operation>
     <operation name="createCVDFulfillments">
        <soap:operation style="document"/>
        <input>
           <soap:body use="literal"/>
        </input>
        <output>
           <soap:body use="literal"/>
        </output>
     </operation>
```

```
<operation name="createLicensesAsBatchAndConsolidate">
8
        <soap:operation style="document"/>
        <input>
           <soap:body use="literal"/>
        </input>
        <output>
           <soap:body use="literal"/>
        </output>
     </operation>
     <operation name="createCVDLicenseFile">
        <soap:operation style="document"/>
        <input>
           <soap:body use="literal"/>
        </input>
        <output>
           <soap:body use="literal"/>
        </output>
     </operation>
9
    <operation name="transferHost">
        <soap:operation style="document"/>
        <input>
           <soap:body use="literal"/>
        </input>
        <output>
           <soap:body use="literal"/>
        </output>
     </operation>
     <operation name="getHostQuery">
        <soap:operation style="document"/>
        <input>
           <soap:body use="literal"/>
        </input>
        <output>
           <soap:body use="literal"/>
        </output>
    </operation>
     <operation name="getHostCount">
        <soap:operation style="document"/>
        <input>
           soap:body use="literal"/>
        </input>
        <output>
           <soap:body use="literal"/>
        </output>
    </operation>
```

## licenseFulfillmentTypes.xsd

The only change made to the licenseFulfillmentTypes.xsd file between v1 and v2 was to update the version number from 1 to 2 in multiple locations in the file.

#### trustedOfflineActivationTypes.xsd

The only change made to the trustedOfflineActivationTypes.xsd file between v1 and v2 was to update the version number from 1 to 2 in multiple locations in the file.

## fulfillmentTypes.xsd

In addition to updating the version number from 1 to 2 in multiple locations in the fulfillmentTypes.xsd file, the following complexTypes were added.

## Change

```
<!-- END consolidatedFulfillments -->
2
     <!-- START createCVDLicenseFile -->
     <xs:complexType name="createCVDLicenseFileRequestType">
        <xs:sequence>
           <xs:element name="queryParams" type="tns:CVDLicenseFileQueryParametersType" minOccurs="0"/>
           <xs:element name="vendorStringIsCumulative" type="xs:boolean"/>
           <xs:element name="pageNumber" type="xs:integer" nillable="true"/>
           <xs:element name="batchSize" type="xs:integer" nillable="true"/>
        </xs:sequence>
     </xs:complexType>
     <xs:complexType name="CVDLicenseFileQueryParametersType">
        <xs:sequence>
           <xs:element name="hostId" type="tns:SimpleQueryType" minOccurs="0"/>
           <xs:element name="nodeLockHostId" type="tns:SimpleQueryType" minOccurs="0"/>
           <xs:element name="customHostAttributes" type="tns:customAttributesQueryListType" minOccurs="0"/>
        </xs:sequence>
     </xs:complexType>
     <xs:complexType name="createCVDLicenseFileResponseType">
        <xs:sequence>
           <xs:element name="statusInfo" type="tns:StatusInfoType"/>
           <xs:element name="responseData" type="tns:CVDLicenseFileConsolidatedResponseDataType"</pre>
     minOccurs="0"/>
        </xs:sequence>
     </xs:complexType>
     <xs:complexType name="CVDLicenseFileConsolidatedResponseDataType">
        <xs:sequence>
           <xs:element name="licenseTechnology" type="tns:CVDLicenseFileConsolidatedLicenseDataType"</pre>
     minOccurs="0" maxOccurs="unbounded"/>
        </xs:sequence>
     </xs:complexType>
     <xs:complexType name="CVDLicenseFileConsolidatedLicenseDataType">
        <xs:sequence>
           <xs:element name="licenseTechnologyName" type="xs:string" minOccurs="0"/>
           <xs:element name="soldTo" type="xs:string"/>
           <xs:element name="criteria" type="xs:string"/>
           <xs:element name="licenseGenerator" type="tns:CVDLicenseGeneratorType" minOccurs="0"</pre>
     maxOccurs="unbounded"/>
           <xs:element name="state" type="tns:StateType" minOccurs="0"/>
        </xs:sequence>
     </xs:complexType>
     <xs:complexType name="CVDLicenseGeneratorType">
        <xs:sequence>
           <xs:element name="licenseGeneratorName" type="xs:string"/>
           <xs:element name="consolidatedLicenseId" type="xs:string"/>
           <xs:element name="consolidatedFulfillments" type="tns:fulfillmentIdentifierListType"/>
           <xs:element name="licenseFiles" type="tns:licenseFileDataListType" minOccurs="0"/>
        </xs:sequence>
     </xs:complexType>
     <xs:element name="createCVDLicenseFileRequest" type="tns:createCVDLicenseFileRequestType"/>
     <xs:element name="createCVDLicenseFileResponse" type="tns:createCVDLicenseFileResponseType"/>
     <!-- END createCVDLicenseFile -->
```

```
3
     <!-- end transferHost -->
     <!--START getHostQueryTypes -->
     <xs:complexType name="hostDataType">
        <xs:sequence>
           <xs:element name="soldTo" type="xs:string"/>
           <xs:element name="licenseTechnology" type="tns:licenseTechnologyIdentifierType" minOccurs="0"/>
           <xs:element name="state" type="tns:StateType" minOccurs="0"/>
           <xs:element name="hostID" type="xs:string" minOccurs="0"/>
           <xs:element name="hostType" type="xs:string" minOccurs="0"/>
           <xs:element name="account" type="xs:string" minOccurs="0"/>
        </xs:sequence>
     </xs:complexType>
     <xs:complexType name="hostQueryParametersType">
        <xs:sequence>
           <xs:element name="hostId" type="tns:SimpleQueryType" minOccurs="0"/>
           <xs:element name="soldTo" type="tns:SimpleQueryType" minOccurs="0"/>
           <xs:element name="licenseTechnology" type="tns:SimpleQueryType" minOccurs="0"/>
           <xs:element name="hostType" type="tns:SimpleQueryType" minOccurs="0"/>
           <xs:element name="account" type="tns:SimpleQueryType" minOccurs="0"/>
           <xs:element name="fulfillmentState" type="tns:fulfillmentStateQueryType" minOccurs="0"/>
        </xs:sequence>
     </xs:complexType>
     <xs:complexType name="getHostQueryRequestType">
        <xs:sequence>
           <xs:element name="queryParams" type="tns:hostQueryParametersType" minOccurs="0"/>
           <xs:element name="pageNumber" type="xs:integer" nillable="true"/>
           <xs:element name="batchSize" type="xs:integer" nillable="true"/>
        </xs:seauence>
     </xs:complexType>
     <xs:complexType name="getHostQueryResponseDataType">
        <xs:sequence>
           <xs:element name="hostData" type="tns:hostDataType" minOccurs="0" maxOccurs="unbounded"/>
           <xs:element name="fulfillmentState" type="xs:string" minOccurs="0"/>
        </xs:sequence>
     </xs:complexType>
     <xs:complexType name="getHostQueryResponseType">
        <xs:sequence>
           <xs:element name="statusInfo" type="tns:StatusInfoType"/>
           <xs:element name="responseData" type="tns:getHostQueryResponseDataType" minOccurs="0"/>
        </xs:sequence>
     </xs:complexType>
     <xs:element name="getHostQueryRequest" type="tns:getHostQueryRequestType"/>
     <xs:element name="getHostQueryResponse" type="tns:getHostQueryResponseType"/>
     <!-- END getHostQueryTypes -->
```

#### commonTypes.xsd

In addition to updating the version number from 1 to 2 in multiple locations in the commonTypes.xsd file, the following additional changes were made. Additions are highlighted in **blue**.

```
1
    <xs:simpleType name="CreateOrUpdateOperationType">
        <xs:restriction base="xs:NMTOKEN">
           <xs:enumeration value="CREATE_OR_UPDATE"/>
           <xs:enumeration value="CREATE OR IGNORE"/>
       </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="CreateOrUpdateOperationAccountType">
        <xs:restriction base="xs:NMTOKEN">
           <xs:enumeration value="CREATE OR UPDATE"/>
           <xs:enumeration value="CREATE_OR_IGNORE"/>
        </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="CollectionOperationType">
        <xs:restriction base="xs:NMTOKEN">
           <xs:enumeration value="REPLACE"/>
           <xs:enumeration value="ADD"/>
           <xs:enumeration value="DELETE"/>
       </xs:restriction>
    </xs:simpleType>
    <xs:simpleType name="CollectionOperationAccountType">
        <xs:restriction base="xs:NMTOKEN">
           <xs:enumeration value="REPLACE"/>
           <xs:enumeration value="ADD"/>
           <xs:enumeration value="DELETE"/>
        </xs:restriction>
    </xs:simpleType>
```

```
2
    <xs:complexType name="OrgTypeList">
        <xs:sequence>
           <xs:element name="orgType" type="tns:OrgType" minOccurs="1" maxOccurs="unbounded" />
       </xs:sequence>
    </xs:complexType>
    <xs:simpleType name="accountType">
        <xs:restriction base="xs:NMTOKEN">
           <xs:enumeration value="CUSTOMER"/>
           <xs:enumeration value="PUBLISHER"/>
          <xs:enumeration value="CHANNEL PARTNER"/>
           <xs:enumeration value="SELF_REGISTERED"/>
        </xs:restriction>
    </xs:simpleType>
    <xs:complexType name="accountTypeList">
        <xs:sequence>
           <xs:element name="accountType" type="tns:accountType" minOccurs="1" maxOccurs="unbounded" />
        </xs:sequence>
    </xs:complexType>
    <xs:complexType name="fulfillmentStateQueryType">
        <xs:sequence>
           <xs:element name="value" type="tns:fulfillmentStateType"/>
           <xs:element name="searchType" type="tns:simpleSearchType"/>
        </xs:sequence>
    </xs:complexType>
    <xs:simpleType name="fulfillmentStateType">
        <xs:restriction base="xs:NMTOKEN">
           <xs:enumeration value="ACTIVE"/>
           <xs:enumeration value="OBSOLETE"/>
           <xs:enumeration value="ON_HOLD"/>
        </xs:restriction>
    </xs:simpleType>
```

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