

FlexNet Operations 2025 R2 On Premises

Reporting Guide



Legal Information

Book Name: FlexNet Operations 2025 R2 On Premises Reporting Guide
Part Number: FNO-2025R2-OPRPT00
Product Release Date: April 2026

Copyright Notice

Copyright © 2026 Flexera Software

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

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

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

Intellectual Property

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

Restricted Rights Legend

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

Contents

- 1 FlexNet Operations 2025 R2 On Premises Reporting Guide 5**
 - Product Support Resources5**
 - Contact Us6**

- 2 About FlexNet Operations Reporting 7**
 - FlexNet Operations Reporting Concepts.....7**
 - FlexNet Operations Reporting Limitations8**
 - Installation..... 11**

- 3 FlexNet Operations Reporting Model 13**
 - Reporting Schema Diagrams 15**
 - Entitlement Fact Relationships16
 - Fulfillment Fact Relationships.....16
 - Device Fact Relationships17
 - Device Prebuilt Fact Relationships18
 - Device Addon Fact Relationships19
 - Reporting Facts..... 20**
 - DEVICE_ADDON_FACT21
 - DEVICE_FACT24
 - DEVICE_PREBUILT_FACT26
 - ENTITLEMENT_FACT27
 - FULFILLMENT_FACT.....29
 - SERVED_CLIENT_FEATURE_FACT31
 - Report Dimensions 32**
 - CONTACT_DIMENSION33
 - DEVICE_DIMENSION.....33
 - ENTITLEMENT_DIMENSION35
 - FULFILLMENT_DIMENSION35
 - LICENSE_MODEL_DIMENSION.....38

| | |
|--|-----------|
| LINE_ITEM_DIMENSION | 39 |
| MAINTENANCE_LI_DIMENSION | 42 |
| ORG_UNIT_DIMENSION | 43 |
| PART_NUMBER_DIMENSION | 44 |
| PRODUCT_DIMENSION | 45 |
| SUPPORT_ACTION_DIMENSION | 46 |
| TIME_DIMENSION | 47 |
| USER_DIMENSION | 48 |
| Custom Attribute Tables | 49 |
| ENTITLEMENT_CUSTOM_ATTR | 49 |
| LICENSE_MODEL_CUSTOM_ATTR | 50 |
| LINE_ITEM_CUSTOM_ATTR | 51 |
| MAINTENANCE_LI_CUSTOM_ATTR | 52 |
| ORG_UNIT_CUSTOM_ATTR | 52 |
| PRODUCT_CUSTOM_ATTR | 53 |
| USER_CUSTOM_ATTR | 54 |
| Other Tables | 54 |
| ENTITLEMENT_CHANNEL_PARTNERS | 55 |
| FULFILLMENT_DATES | 55 |
| LINE_ITEM_DATES | 56 |
| LINE_ITEM_RELATION | 57 |
| LINE_ITEM_USERS | 57 |
| MAINTENANCE_LI_RELATION | 58 |
| OPS_REPORTING_ENTY_STATUS | 58 |
| ORG_HIERARCHY | 59 |
| PARTNER_RELATED_ORGS | 59 |
| PRODUCT_RELATION | 60 |
| RPT_MODULE | 60 |
| USER_ORG_RELATION | 61 |
| USER_ORG_ROLE | 61 |
| Sample SQL Scripts | 61 |
| Locating Sample SQL Scripts | 62 |
| SQL Script Descriptions | 62 |

1

FlexNet Operations 2025 R2 On Premises Reporting Guide

FlexNet Operations reporting is a powerful tool that enables you to review and analyze your FlexNet Operations data. FlexNet Operations reporting gives you access to the licensing data stored in FlexNet Operations: licensing, entitlement, fulfillment, device, and support operations.

Table 1-1 ▪ FlexNet Operations 2025 R2 On Premises Reporting Guide

| Section | Description |
|--|---|
| About FlexNet Operations Reporting | Lists information and concepts you need to become familiar with before running reports on your FlexNet Operations data. |
| FlexNet Operations Reporting Model | Describes the tables that comprise the FlexNet Operations reporting database. |

Product Support Resources

The following resources are available to assist you with using this product:

- [Reverera Product Documentation](#)
- [Reverera Community](#)
- [Reverera Learning Center](#)
- [Reverera Support](#)

Reverera Product Documentation

You can find documentation for all Reverera products on the [Reverera Product Documentation](#) site:

<https://docs.reverera.com>

Reverera Community

On the [Reverera Community](https://community.reverera.com) site, you can 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 Reverera's product solutions, you can access forums, blog posts, and knowledge base articles.

<https://community.reverera.com>

Reverera Learning Center

The Reverera Learning Center offers free, self-guided, online videos to help you quickly get the most out of your Reverera products. You can find a complete list of these training videos in the Learning Center.

<https://learning.reverera.com>

Reverera Support

For customers who have purchased a maintenance contract for their product(s), you can submit a support case or check the status of an existing case by first logging into the [Reverera Community](https://community.reverera.com), clicking **Support** on the navigation menu to open the **Support Hub** page, and then clicking the **Open New Case** or **Case Portal** button.

Contact Us

Reverera is headquartered in Itasca, Illinois, and has offices worldwide. To contact us or to learn more about our products, visit our website at:

<http://www.reverera.com>

You can also follow us on social media:

- [X \(formerly Twitter\)](#)
- [Facebook](#)
- [LinkedIn](#)
- [YouTube](#)
- [Instagram](#)

About FlexNet Operations Reporting

FlexNet Operations reporting is a powerful tool that enables you to review and analyze your FlexNet Operations data. FlexNet Operations reporting gives you access to the licensing data stored in FlexNet Operations: licensing, entitlement, fulfillment, device, and support operations.

FlexNet Operations provides the FlexNet Operations reporting model, and users use their preferred database environment tools to directly query the FlexNet Operations reporting database.

This section introduces you to FlexNet Operations reporting.

Table 2-1 ▪ About FlexNet Operations Reporting

| Chapter | Description |
|--|---|
| FlexNet Operations Reporting Concepts | Lists information and concepts you need to become familiar with before running reports on your FlexNet Operations data. |
| FlexNet Operations Reporting Limitations | Lists limitations of FlexNet Operations reporting. |
| Installation | Explains where to find instructions on installing FlexNet Operations Reporting and configuring your servers. |

FlexNet Operations Reporting Concepts

You must be familiar with FlexNet Operations features and licensing concepts before running reports on your FlexNet Operations data. Please review the Getting Started Guides for FlexNet Operations for an introduction to FlexNet Operations, and the FlexNet Operations Installation Guide for instructions on installing and configuring FlexNet Operations reporting.

- [What is a Report?](#)
- [Reporting Database and Server](#)

What is a Report?

A report is a collection of data corresponding to specific criteria, presented in a tabular or graphical format. For example, if you want to see all entitlements fulfilled during the last six months, a report would collect and present the data in the format you specify, such as alphabetical by product.

Often, a report is optimized for printing, but can be exported to a variety of file formats.

Reporting Database and Server

The reporting database contains the FlexNet Operations data that is used to build reports. This database is distinct from the FlexNet Operations database. Data is transmitted from the FlexNet Operations database to the reporting database in a process known as data transformation.

FlexNet Operations Reporting Limitations

FlexNet Operations reporting includes the following limitations:

- [Entities and Relationships Unavailable for Reporting](#)
- [State Change History](#)
- [Test Entitlements, Devices, etc.](#)
- [Served Client Devices](#)
- [Device Product License State](#)
- [Custom Attributes](#)
- [Old, Imported Fulfillment Records](#)
- [Required for Reporting Flag](#)
- [Security and Authorization](#)

Entities and Relationships Unavailable for Reporting

The FlexNet Operations reporting model does not support the generation of reports on the following entities or relationships:

- Account hierarchies.
- Relationships between user and accounts.
- Product hierarchies, such as the relationship between suites and products.
- Product relationships, such as the relationship between line items and maintenance items.
- Policies, such as the number of allowed rehosts, returns or extra activations.

State Change History

Data transformation to the reporting database depends on the state change history records. The data transformation process can mis-handle certain deployment scenarios and entitlement line item imports:

- When a line item is deployed, the total number of copies on the line item are recorded in the state change history. If the line item is moved back to the draft state and then re-deployed, the total number of copies on the line item will be recorded again in the state change history. Hence, in the reporting database, the number of copies is inflated for that line item. However, if the count is changed for a deployed line item without a state change, FlexNet Operations records this as a count event in state change history. In this case, the data in the reporting database is accurate.
- If entitlement line items are imported into FlexNet Operations, the count changes on entitlement lines item are not properly captured. Only the final count on a given entitlement line item is recorded. As a result, the reporting database shows the final count on the line item, not the historical count changes.

Test Entitlements, Devices, etc.

Entities in Test status are not transformed to the reporting database.

Served Client Devices

Served clients are transformed to reporting in both the DEVICE_DEMENSION and DEVICE_FACT tables but do not contain all the necessary information to create reports. They are not transformed to the DEVICE_ADDON_FACT table.

Device Product License State

Details about license state changes for product licenses are not transformed to the reporting database. For product licenses, only events that change the requested copies or consumed copies counts are available for reporting.

Custom Attributes

FlexNet Operations reporting imposes limits on the names used for custom license model attributes and custom host attributes, the value types used for custom attributes, and the use of host attributes in custom license technologies:

Table 2-2 ▪ Custom Attributes Limitations

| Attribute | Description |
|---|--|
| Custom License Model Attribute Names | <p>If a custom license model attribute is required for reporting, the name of the attribute cannot contain special characters like single quote ('), double quote ("), comma (,) and question mark (?).</p> <p>The maximum length of the attribute name is 29 characters.</p> <p>Note that there are three types of custom license model attributes based on when the attribute's value is set:</p> <ul style="list-style-type: none"> ● License model time ● Entitlement time ● Fulfillment time <p>Only entitlement-time and fulfillment-time custom license model attribute types are transformed to the reporting database.</p> |

Table 2-2 ▪ Custom Attributes Limitations

| Attribute | Description |
|---|---|
| <p>Custom Host Attribute Names</p> | <p>Like custom license model attribute names, if a custom host attribute is required for reporting, its name cannot contain special characters, and additional constraints are imposed on the length of custom host attribute names.</p> <p>When a custom host attribute is loaded to the reporting database, FlexNet Operations combines the custom host attribute name and the entity’s host type to derive a unique value for the custom host attribute’s column name. The column name contains first the host type, followed by two underscore characters, followed by the custom host attribute name:</p> <pre data-bbox="618 663 1101 690"><host_type>__<custom_host_attribute_name></pre> <p>The maximum combined length of the custom host attribute name and the host type is 27 characters.</p> |
| <p>Custom Attribute Value Types</p> | <p>Not all possible value types for custom license model attributes and custom host attributes are supported for reporting. Specifically, the value types “multi-value” and “long text” are not supported, and these value types are not transformed by the data transformation process. All other value types are supported for reporting.</p> |
| <p>Host Attributes for Custom Licensing Technologies</p> | <p>Host attributes for non-FlexNet licensing technologies are not transformed to the reporting database. Only FlexNet licensing host attributes are available for reporting.</p> |

Old, Imported Fulfillment Records

Data transformation is incremental and only the new data is transformed. If old fulfillment records are imported into FlexNet Operations after data is moved to the reporting database, the transformation of these fulfillment records requires special handling. To ensure these old records are included in the reporting database, run `flexnet loadreportdb` to reset the reporting database and start the data transformation again.

Required for Reporting Flag

Data transformation is an incremental process. Only new or modified line items are copied to the reporting database during transformation. If the **Required for Reporting** flag on the custom attribute is set to true *after* data transformation is done, FlexNet Operations does not update custom attribute information on the line items that have already been transformed.

To avoid this issue, consider setting the **Required for Reporting** flag when the custom attribute is initially created. If all line item records must be updated with custom attribute information, run `flexnet loadreportdb` to reset the reporting database and start the data transformation again.

Security and Authorization

Item level security is not enabled. Permissions in FlexNet Operations do not carry over into FlexNet Reporting.

For example, some FlexNet Operations users can be disabled from viewing product information or entitlements. However, these permissions are not included in FlexNet Operations reporting, whether the reports are run as direct SQL queries on the reporting database or in the administrative console. A user who has the View Reports permissions can see all reports and all data in a report.



Important - Producers who are upgrading from FlexNet Operations On-Premises version 2014 or older, and who used device-reporting functionality in that version, please contact Flexera support. Event ID types are no longer used in the data warehouse. This change requires additional steps, after the upgrade, to resolve device-reporting differences.



Version - Only changes made to the reporting database after 2017 R2 is installed will be affected by 2017 R2 software changes. Existing records (i.e. records already transformed before 2017 R2) will not be modified.

Please consult the *FlexNet Operations Release Notes* for information on known issues with FlexNet Operations reporting.

Installation

For instructions on installing FlexNet Operations Reporting and configuring your servers, consult the [FlexNet Operations Installation and Implementation Guide](#) (available from the [Reverera Documentation](#) site).

FlexNet Operations Reporting Model

This section describes the tables that comprise the FlexNet Operations reporting database. It includes entity-relationship diagrams; descriptions of the columns in the dimension, fact, and other tables; and information about sample SQL scripts.

This chapter describes the various tables—mainly dimensions and facts—that are available in the FlexNet Operations reporting model. You can use these tables when creating or modifying SQL scripts to generate your own reports.

Table 3-1 ▪ FlexNet Operations Reporting Model

| Section | Description |
|----------------------------------|---|
| Reporting Schema Diagrams | Schema diagram illustrating the tables in the FlexNet Operations reporting database and the relationships among them. |
| Reporting Facts | Most producers use reporting to view some sort of aggregated data. These data are called facts (or measures): numeric values that are measurable and additive. This section lists the FlexNet Operations reporting database fact tables. |
| Report Dimensions | A dimension is a set of related properties based on available data, which can be made use of in a report. Most dimensions have attributes that express some aspect of the dimension. This section lists the FlexNet Operations reporting database dimension tables. |
| Custom Attribute Tables | Custom Attribute tables store custom content that is used in the End-User Portal to customize page instructions on supported pages, add announcements to the home page, or create standalone pages. This section lists the FlexNet Operations reporting database custom attribute tables. |
| Other Tables | This section lists additional tables in the FlexNet Operations reporting database. |
| Sample SQL Scripts | Describes the scripts provided to illustrate SQL queries that generate reports based on data in the FlexNet Operations reporting database. |

The fact and dimension tables, as well as supporting date, user, and housekeeping tables, are documented in this chapter and illustrated in the [Reporting Schema Diagrams](#).

Table 3-2 ▪ FlexNet Operations Reporting Tables

| Type | Tables |
|-------------------------|---|
| Facts | DEVICE_ADDON_FACT DEVICE_FACT DEVICE_PREBUILT_FACT ENTITLEMENT_FACT FULFILLMENT_FACT SERVED_CLIENT_FEATURE_FACT |
| Dimensions | CONTACT_DIMENSION DEVICE_DIMENSION ENTITLEMENT_DIMENSION FULFILLMENT_DIMENSION LICENSE_MODEL_DIMENSION LINE_ITEM_DIMENSION MAINTENANCE_LI_DIMENSION ORG_UNIT_DIMENSION PART_NUMBER_DIMENSION PRODUCT_DIMENSION SUPPORT_ACTION_DIMENSION TIME_DIMENSION USER_DIMENSION |
| Custom Attribute | ENTITLEMENT_CUSTOM_ATTR LICENSE_MODEL_CUSTOM_ATTR LINE_ITEM_CUSTOM_ATTR MAINTENANCE_LI_CUSTOM_ATTR ORG_UNIT_CUSTOM_ATTR PRODUCT_CUSTOM_ATTR USER_CUSTOM_ATTR |
| Other | ENTITLEMENT_CHANNEL_PARTNERS FULFILLMENT_DATES LINE_ITEM_DATES LINE_ITEM_RELATION LINE_ITEM_USERS MAINTENANCE_LI_RELATION OPS_REPORTING_ENTY_STATUS ORG_HIERARCHY PARTNER_RELATED_ORGS PRODUCT_RELATION RPT_MODULE USER_ORG_RELATION USER_ORG_ROLE |



Note - Unless the entity is specifically mentioned in this chapter, it is not supported by FlexNet Operations reporting.

Reporting Schema Diagrams

This schema diagram illustrates the tables in the FlexNet Operations reporting database and the relationships among them. Subsequent diagrams focus on relationships between individual fact tables and their foreign key links with dimension tables.

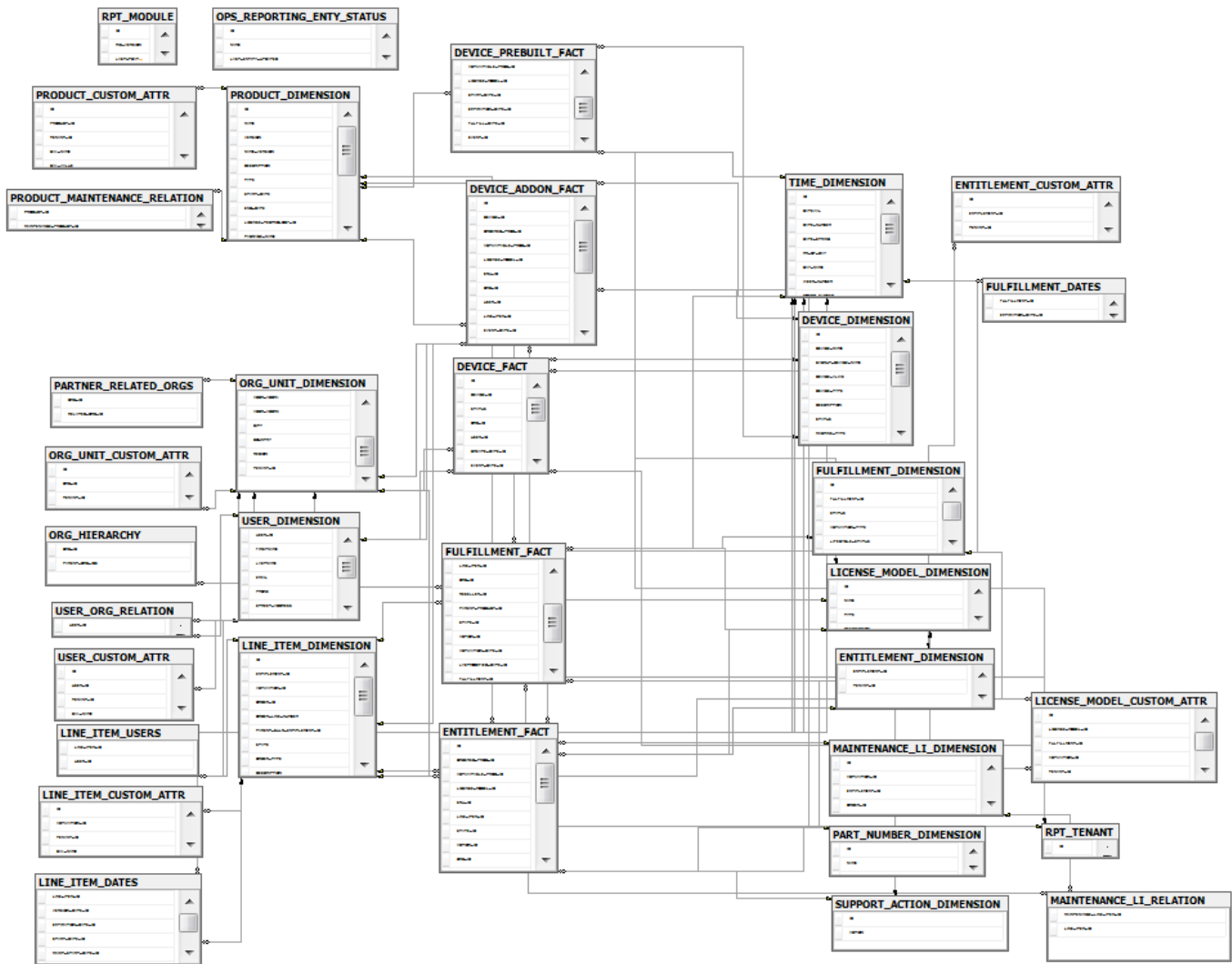


Figure 3-1: Entity-Relationships Among Tables in the FlexNet Operations Reporting Schema

Entitlement Fact Relationships

The ENTITLEMENT_FACT table is linked to the following dimensions: ORG_UNIT_DIMENSION, TIME_DIMENSION, LICENSE_MODEL_DIMENSION, LINE_ITEM_DIMENSION, PART_NUMBER_DIMENSION, SUPPORT_ACTION_DIMENSION, and PRODUCT_DIMENSION.

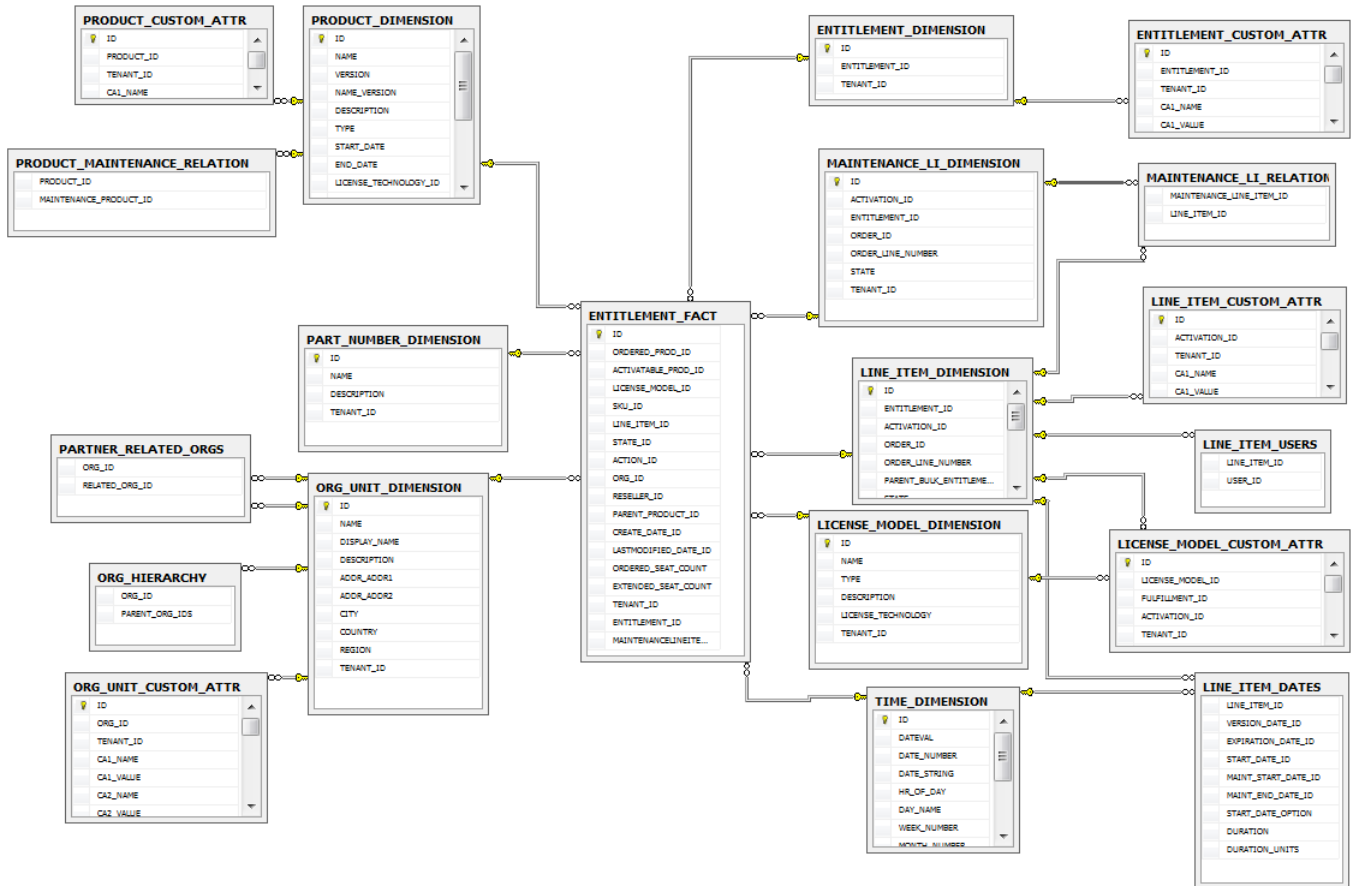


Figure 3-2: Entity Relationships for the ENTITLEMENT_FACT Table

Although the connections are not shown, here, the LINE_ITEM_DIMENSION table also links to the LINE_ITEM_DATES and LINE_ITEM_USERS tables which, in turn, link to the TIME_DIMENSION and USER_DIMENSION tables, respectively.

See [ENTITLEMENT_FACT](#) for details on all the columns in the ENTITLEMENT_FACT table.

Fulfillment Fact Relationships

The FULFILLMENT_FACT table is linked to the following dimensions: FULFILLMENT_DIMENSION, ORG_UNIT_DIMENSION, TIME_DIMENSION, LICENSE_MODEL_DIMENSION, LINE_ITEM_DIMENSION, PART_NUMBER_DIMENSION, SUPPORT_ACTION_DIMENSION, and PRODUCT_DIMENSION.

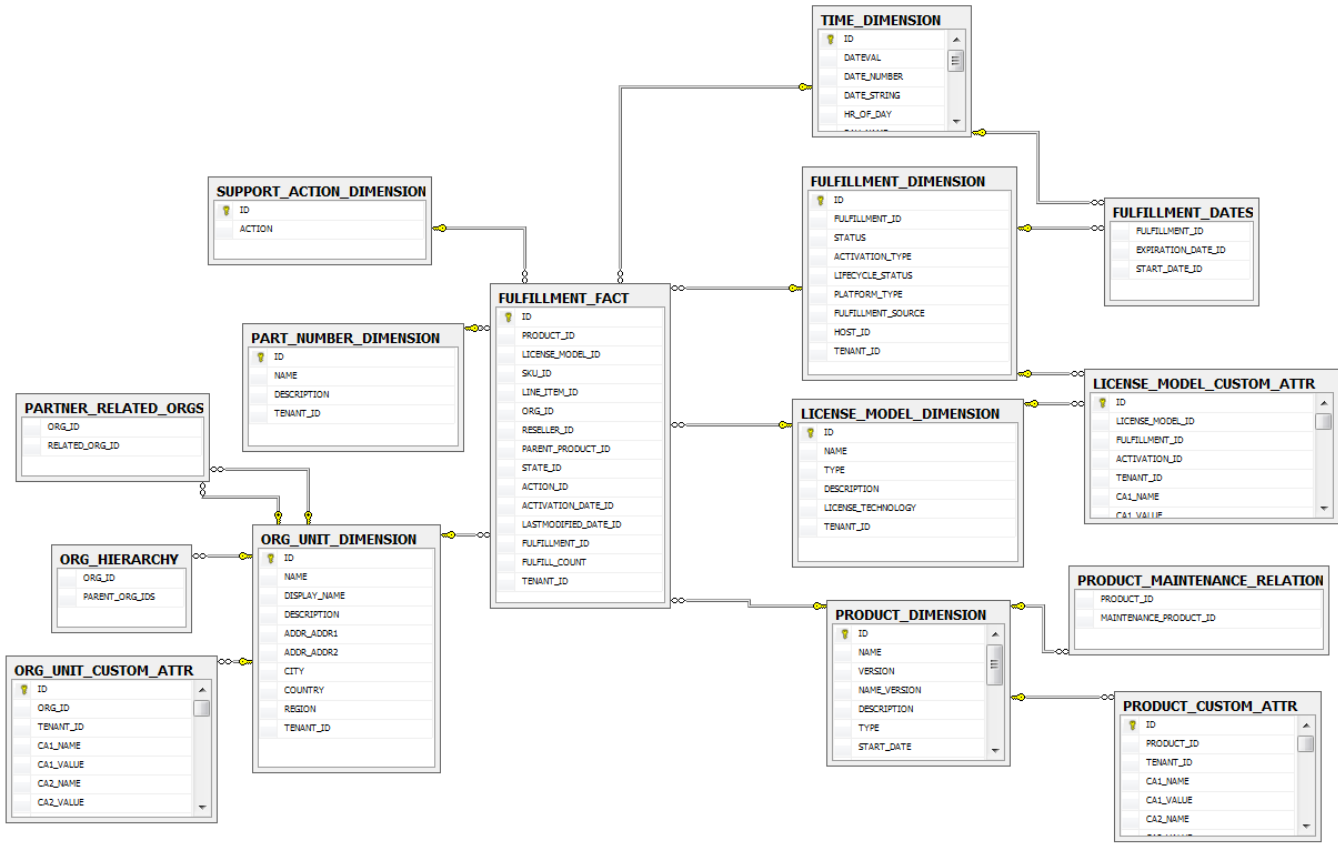


Figure 3-3: Entity Relationships for the FULFILLMENT_FACT Table

Although the connections are not shown, here, the LINE_ITEM_DATES and LINE_ITEM_USERS tables link to the LINE_ITEM_DIMENSION table. LINE_ITEM_DATES also links to the TIME_DIMENSION table. Likewise, LINE_ITEM_USERS also links to the USER_DIMENSION table. In addition, the FULFILLMENT_DATES table links to the FULFILLMENT_DIMENSION and to the TIME_DIMENSION.

See [FULFILLMENT_FACT](#) for details on all the columns in the FULFILLMENT_FACT table.

Device Fact Relationships

The DEVICE_FACT table is linked to the following dimensions: USER_DIMENSION, DEVICE_DIMENSION, ORG_UNIT_DIMENSION, CONTACT_DIMENSION, and TIME_DIMENSION.

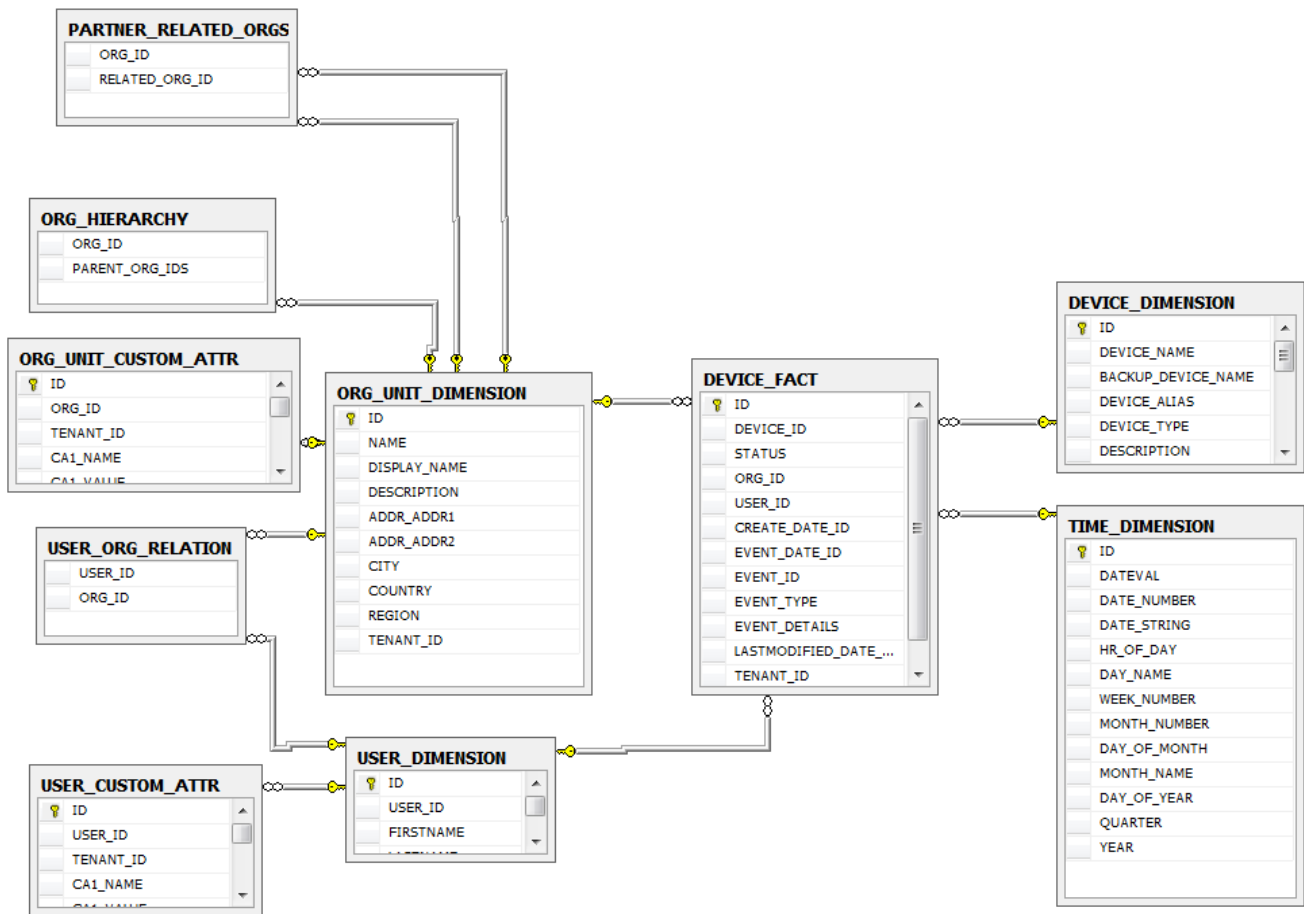


Figure 3-4: Entity Relationships for the DEVICE_FACT Table

See [DEVICE_FACT](#) for details about all the columns in the DEVICE_FACT table.

Device Prebuilt Fact Relationships

The **DEVICE_PREBUILT_FACT** table is linked to the following dimensions: **DEVICE_DIMENSION**, **LICENSE_MODEL_DIMENSION**, **PRODUCT_DIMENSION**, and **TIME_DIMENSION**.

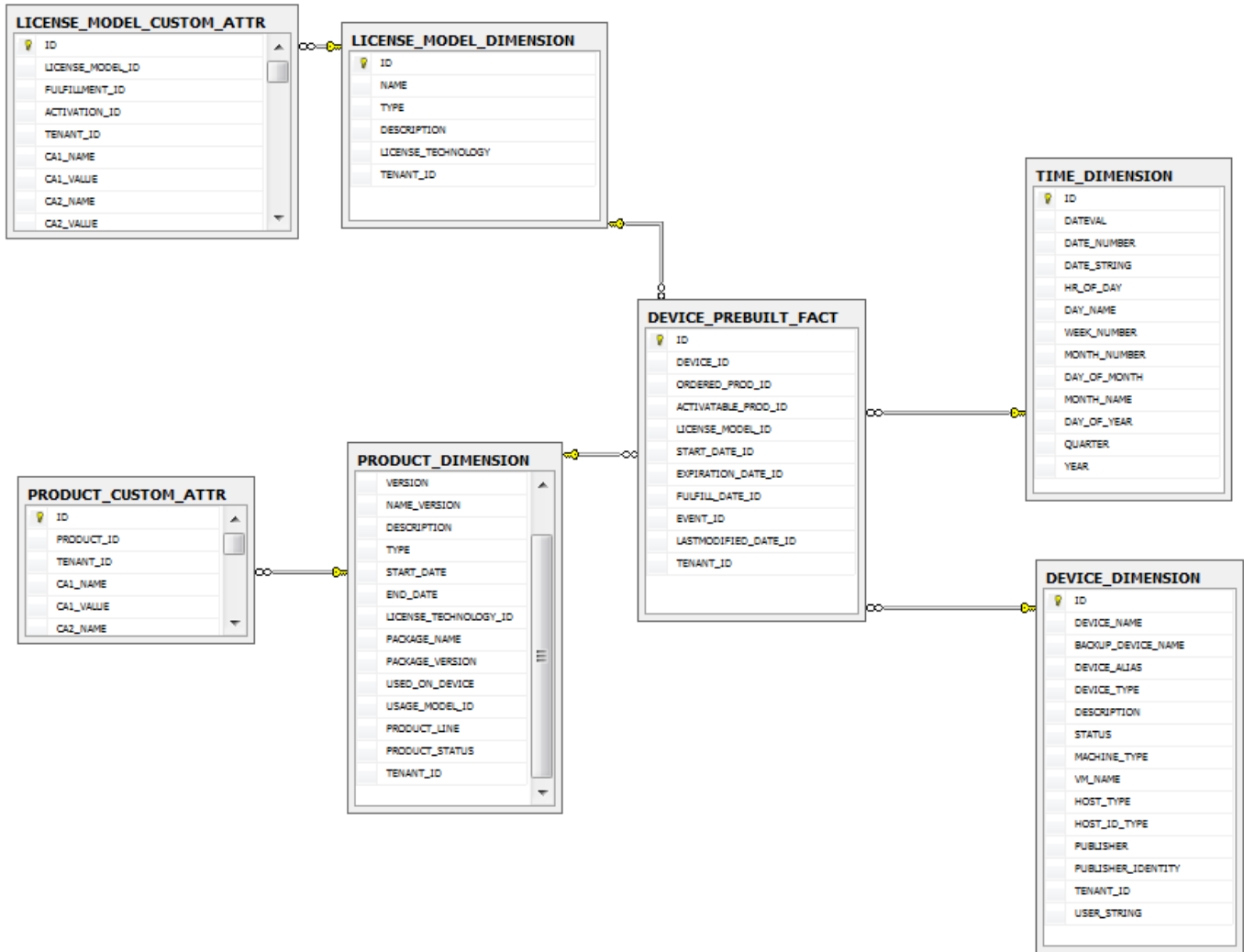


Figure 3-5: Entity Relationships for the `DEVICE_PREBUILT_FACT` Table

See [DEVICE_PREBUILT_FACT](#) for details on all the columns in the `DEVICE_PREBUILT_FACT` table.

Device Addon Fact Relationships

The `DEVICE_ADDON_FACT` table is linked to the following dimensions: `USER_DIMENSION`, `DEVICE_DIMENSION`, `ORG_UNIT_DIMENSION`, `TIME_DIMENSION`, `LICENSE_MODEL_DIMENSION`, `LINE_ITEM_DIMENSION`, `PART_NUMBER_DIMENSION`, `CONTACT_DIMENSION`, and `PRODUCT_DIMENSION`.

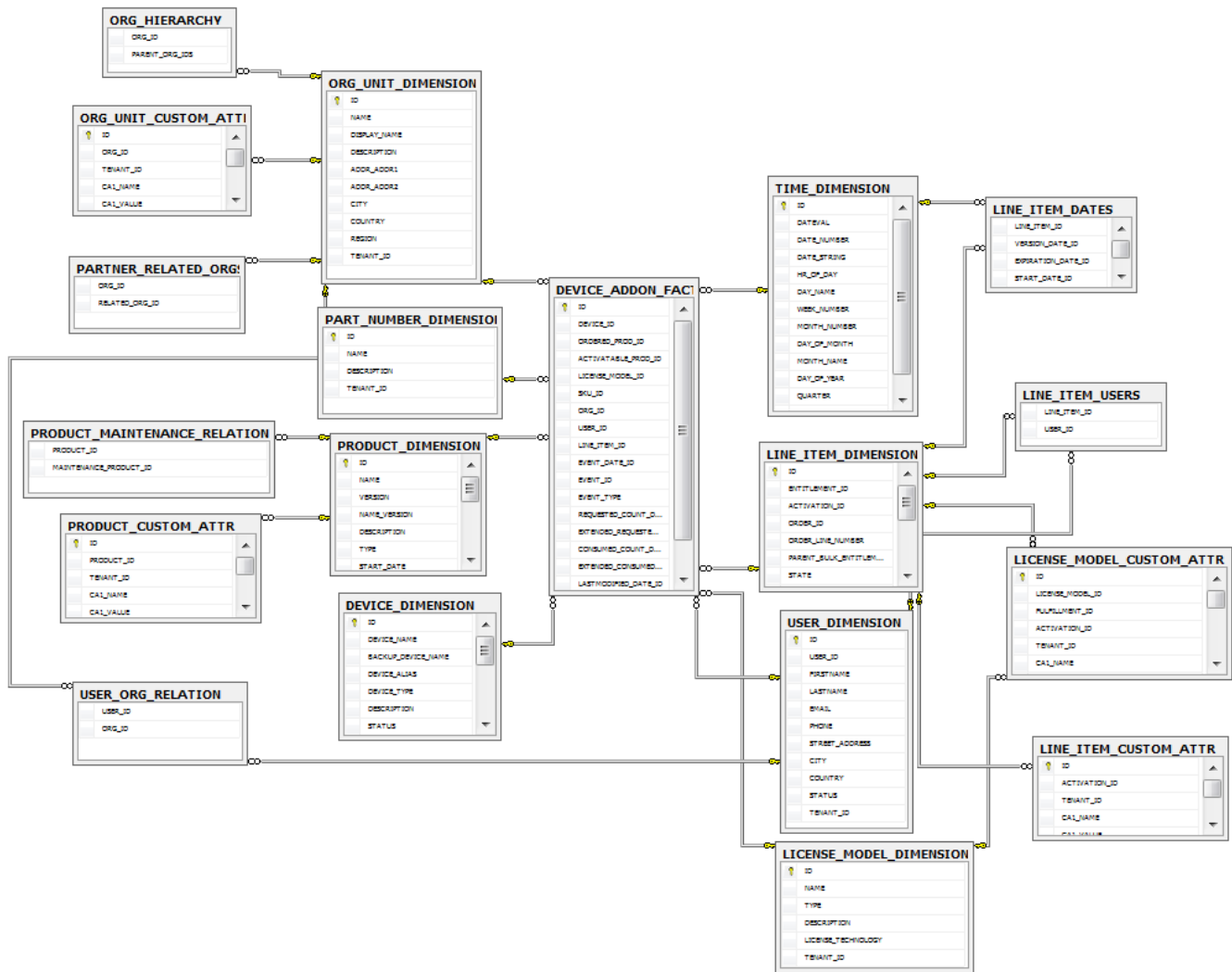


Figure 3-6: Entity Relationships for the DEVICE_ADDON_FACT Table

Although the connections are not shown, here, the LINE_ITEM_DATES and LINE_ITEM_USERS tables link to the LINE_ITEM_DIMENSION table. LINE_ITEM_DATES also links to the TIME_DIMENSION table. Likewise, LINE_ITEM_USERS also links to the USER_DIMENSION table.

See [DEVICE_ADDON_FACT](#) for details on all the columns in the DEVICE_ADDON_FACT table.

Reporting Facts

Most producers use reporting to view some sort of aggregated data. These data are called facts (or measures): numeric values that are measurable and additive. For example, producers would like to know how many seats of a product were activated in a given year. In this case, number of seats is a fact.

The FlexNet Operations reporting database includes the following fact tables:

- [DEVICE_ADDON_FACT](#)
- [DEVICE_FACT](#)

- DEVICE_PREBUILT_FACT
- ENTITLEMENT_FACT
- FULFILLMENT_FACT
- SERVED_CLIENT_FEATURE_FACT

DEVICE_ADDON_FACT

This section describes the various device product facts that the producer can use in reports. The Device Add-on Fact table contains information about device products. A record is written to this table when an event causes a change in the requested count or consumed count of a device's product.



Note - When a device is mapped to a contact, only contact specific fields are populated and user specific fields are omitted. If a device is mapped to a user, both user and contact fields will be populated.

Table 3-3 - Device Add-on Facts

| Column | Type | Length | Description |
|----------------------------|---------|--------|---|
| ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the Device Add-on Fact record as defined in FlexNet Operations. |
| DEVICE_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the Device Dimension record as defined in FlexNet Operations. |
| ORDERED_PROD_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier for the device's ordered product ID. |
| ACTIVATABLE_PROD_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier for the device's activatable product ID. ACTIVATABLE_PROD_ID is a foreign key to the product record in the PRODUCT_DIMENSION table. |
| LICENSE_MODEL_ID | numeric | 19 | A 19-digit unique identifier for the device's License Model Dimension record. LICENSE_MODEL_ID is a foreign key to the LICENSE_MODEL_DIMENSION table, and it can be null. |
| SKU_ID | numeric | 19 | A 19-digit unique identifier for the device's Part Number Dimension record. SKU_ID is a foreign key to the PART_NUMBER_DIMENSION table. SKU_ID can be null. |

Table 3-3 ▪ Device Add-on Facts


| Column | Type | Length | Description |
|----------------------|---------|--------|--|
| ORG_ID | numeric | 19 | <p>A 19-digit (non-nullable) unique identifier of the device’s Organization Unit Dimension record. ORG_ID is a foreign key to the ORG_UNIT_DIMENSION table.</p> <p></p> <p>Note ▪ <i>ORG_ID</i> refers to the organization’s account ID in FlexNet Operations.</p> |
| USER_ID | numeric | 19 | <p>If the device is mapped to a user and the Device user option is set to On with validation, this is a 19-digit unique identifier for the user ID specified in FlexNet Operations for this user (the identifier the user uses to log in). USER_ID is a foreign key to the USER_DIMENSION table.</p> <p>If the device is mapped to a contact or the Device user option is set to Off (default setting) or On without validation or the user is inactive, this column will be null.</p> <p>See “Configuring FlexNet Operations” in the Producer Portal Help Guide for more information on configuring the Device user option.</p> |
| LINE_ITEM_ID | numeric | 19 | <p>A 19-digit (non-nullable) unique identifier for the product’s line item ID. LINE_ITEM_ID is a foreign key to the line item record in the LINE_ITEM_DIMENSION table.</p> |
| EVENT_DATE_ID | numeric | 19 | <p>A 19-digit unique identifier for a device event date. EVENT_DATE_ID is a foreign key to the TIME_DIMENSION table.</p> |
| EVENT_ID | numeric | 19 | <p>A 19-digit unique identifier for a device event.</p> |

Table 3-3 ▪ Device Add-on Facts

| Column | Type | Length | Description |
|---------------------------------|---------|--------|--|
| EVENT_TYPE | string | 64 | <p>A device event type. EVENT_TYPE is the event type name for the event ID number in EVENT_ID. EVENT_TYPE may be one of the following values:</p> <p>ACTIVATABLE_ITEM_ADDED</p> <p>ACTIVATABLE_ITEM_REMOVED</p> <p>ACTIVATABLE_ITEM_INCREASED</p> <p>ACTIVATABLE_ITEM_DECREASED</p> <p>ACTIVATABLE_ITEM_MARK_REMOVED</p> <p>CAPABILITY_RESPONSE_SENT</p> <p>CAPABILITY_RESPONSE_GENERATED</p> |
| REQUESTED_COUNT_DELTA | numeric | 19 | <p>The change to a device product's requested count as the result of event identified by the EVENT_ID value. The value is the difference between the current requested count and the old requested count.</p> |
| EXTENDED_REQUESTED_COUNT | numeric | 19 | <p>A count of a product or suite included in the line item request. For each product and suite, this value is calculated by multiplying the REQUESTED_COUNT_DELTA value by the counts of the product or suite in the line item. Example:</p> <ul style="list-style-type: none"> ● Line Item L1 contains 2 copies of product PA and 3 copies of suite SA. ● Suite SA contains 2 copies of product PB, 3 copies of product PC, and 1 copy of product PD. ● A request for 2 counts for L1 occurs. <p>The REQUESTED_COUNT_DELTA is 2. Five rows are written to the Device Add-on Facts table (one for each product or suite). The EXTENDED_REQUESTED_COUNT value for product PA is 4, suite SA is 6, product PB is 12, product PC is 18, and product PD is 6.</p> |

Table 3-3 ▪ Device Add-on Facts

| Column | Type | Length | Description |
|--------------------------------|---------|--------|---|
| CONSUMED_COUNT_DELTA | numeric | 19 | The change to a device's consumed count as the result of event identified by the EVENT_ID value, like CAPABILITY_RESPONSE_SENT or CAPABILITY_RESPONSE_GENERATED. The value is the difference between the current consumed count and the old consumed count. |
| EXTENDED_CONSUMED_COUNT | numeric | 19 | A count of a product or suite consumed as part of a line item request. The consumed count is recorded for products for which a license has been generated. For each product and suite, this value is calculated by multiplying the CONSUMED_COUNT_DELTA value by the counts of the product or suite in the line item. This count is calculated similar to the EXTENDED_REQUESTED_COUNT, |
| LASTMODIFIED_DATE_ID | numeric | 19 | A 19-digit unique identifier for the device product's Last Modified Date. |
| CONTACT_ID | numeric | 19 | <p>If the Device user option is set to On with validation, a 19-digit unique identifier for a contact. CONTACT_ID is a foreign key to the CONTACT_DIMENSION table.</p> <p>If the Device user option is set to On without validation or Off, this column will be null.</p> |

DEVICE_FACT

This section describes the various device facts that the producer can use in reports. The Device Fact table contains information about changes to a device over time. Records are written to this table when devices are created, activated, or made obsolete.



Note ▪ When a device is mapped to a contact, only contact specific fields are populated and user specific fields are omitted. If a device is mapped to a user, both user and contact fields will be populated.

Table 3-4 ▪ Device Fact Columns

| Column | Type | Length | Description |
|-----------|---------|--------|---|
| ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the Device Fact record as defined in FlexNet Operations. |

Table 3-4 • Device Fact Columns


| Column | Type | Length | Description |
|-----------------------|---------|--------|---|
| DEVICE_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the Device Dimension record as defined in FlexNet Operations. |
| STATUS | string | 64 | The status of the device: Active or Obsolete. |
| ORG_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the device's Organization Unit Dimension record. ORG_ID is a foreign key to the ORG_UNIT_DIMENSION table.  Note • ORG_ID refers to the organization's account ID in FlexNet Operations. |
| USER_ID | numeric | 19 | If the device is mapped to a user and the Device user option is set to On with validation , this is a 19-digit unique identifier for the user ID specified in FlexNet Operations for this user (the identifier the user uses to log in). USER_ID is a foreign key to the USER_DIMENSION table. If the device is mapped to a contact or the Device user option is set to Off (default setting) or On without validation or the user is inactive, this column will be null. See “Configuring FlexNet Operations” in the Producer Portal Help Guide for more information on configuring the Device user option . |
| CREATE_DATE_ID | numeric | 19 | A 19-digit unique identifier for the device's creation date. CREATE_DATE_ID is a foreign key to the TIME_DIMENSION table. |
| EVENT_DATE_ID | numeric | 19 | A 19-digit unique identifier for a device event date. EVENT_DATE_ID is a foreign key to the TIME_DIMENSION table. |
| EVENT_ID | numeric | 19 | A 19-digit unique identifier for a device event. |

Table 3-4 ▪ Device Fact Columns

| Column | Type | Length | Description |
|-----------------------------|---------|--------|---|
| EVENT_TYPE | string | 64 | A device event type for the event identified by the number in EVENT_ID. EVENT_TYPE can be one of the following values: DEVICE_CREATED DEVICE_STATE_ACTIVE DEVICE_STATE_OBSOLETE |
| EVENT_DETAILS | string | 2000 | An optional description for the event. |
| LASTMODIFIED_DATE_ID | numeric | 19 | A 19-digit unique identifier for the device's Last Modified Date. |
| Contact_ID | numeric | 19 | If the Device user option is set to On with validation , a 19-digit unique identifier for a contact. CONTACT_ID is a foreign key to the CONTACT_DIMENSION table. If the Device user option is set to On without validation or Off , this column will be null. |

DEVICE_PREBUILT_FACT

This section describes the various device pre-installation facts that the producer can use in reports. The Device Prebuilt Fact table contains information about device pre-installed licenses. Records are written to this table when a PREBUILT_LICENSE_GENERATED event occurs.

Table 3-5 ▪ Device Prebuilt Fact Columns

| Column | Type | Length | Description |
|----------------------------|---------|--------|--|
| ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the Device Prebuilt Fact record as defined in FlexNet Operations. |
| DEVICE_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the Device Dimension record as defined in FlexNet Operations. |
| ORDERED_PROD_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier for the device's ordered product ID. |
| ACTIVATABLE_PROD_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier for the device's activatable product ID. ACTIVATABLE_PROD_ID is a foreign key to the product record in the PRODUCT_DIMENSION table. |

Table 3-5 ▪ Device Prebuilt Fact Columns

| Column | Type | Length | Description |
|-----------------------------|---------|--------|---|
| LICENSE_MODEL_ID | numeric | 19 | A 19-digit unique identifier for the device's License Model Dimension record. LICENSE_MODEL_ID is a foreign key to the LICENSE_MODEL_DIMENSION table. LICENSE_MODEL_ID can be null. |
| START_DATE_ID | numeric | 19 | A 19-digit unique identifier of the pre-installed license's Start Date. START_DATE_ID is a foreign key to the TIME_DIMENSION table. |
| EXPIRATION_DATE_ID | numeric | 19 | A 19-digit unique identifier of the pre-installed license's Expiration Date. EXPIRATION_DATE_ID is a foreign key to the TIME_DIMENSION table. |
| FULFILL_DATE_ID | numeric | 19 | A 19-digit unique identifier of the pre-installed license's Fulfillment Date. The fulfillment date is the date the license was generated. FULFILL_DATE_ID is a foreign key to the TIME_DIMENSION table. |
| EVENT_ID | numeric | 19 | A 19-digit unique identifier for a device event. |
| LASTMODIFIED_DATE_ID | numeric | 19 | A 19-digit unique identifier for the pre-installed license's Last Modified Date. |

ENTITLEMENT_FACT

The following entitlement related facts are available in the reporting model.

Table 3-6 ▪ Entitlement Facts

| Columns | Type | Length | Description |
|----------------------------|---------|--------|--|
| ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the Entitlement Fact record as defined in FlexNet Operations. |
| ORDERED_PROD_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier for the entitlement's ordered product ID. |
| ACTIVATABLE_PROD_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier for the entitlement's activatable product ID. ACTIVATABLE_PROD_ID is a foreign key to the PRODUCT_DIMENSION table. |

Table 3-6 ▪ Entitlement Facts


| Columns | Type | Length | Description |
|--------------------------|---------|--------|--|
| LICENSE_MODEL_ID | numeric | 19 | A 19-digit unique identifier for the entitlement's License Model Dimension record. LICENSE_MODEL_ID is a foreign key to the LICENSE_MODEL_DIMENSION table. LICENSE_MODEL_ID can be null. |
| SKU_ID | numeric | 19 | A 19-digit unique identifier for the entitlement's Part Number Dimension record. SKU_ID can be null. SKU_ID is a foreign key to the PART_NUMBER_DIMENSION table. |
| LINE_ITEM_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier for the entitlement's line item ID. LINE_ITEM_ID is a foreign key to the LINE_ITEM_DIMENSION table. |
| STATE_ID | numeric | 19 | A 19-digit unique identifier of the entitlement's current state. |
| ACTION_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the entitlement's Support Action Dimension record. ACTION_ID is a foreign key to the SUPPORT_ACTION_DIMENSION table. |
| ORG_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the entitlement's Organization Unit Dimension record. ORG_ID identifies the sold-to account for the entitlement. ORG_ID is a foreign key to the ORG_UNIT_DIMENSION table. |
| | | |  <p>Note ▪ <i>ORG_ID</i> refers to the organization's account ID in FlexNet Operations.</p> |
| RESELLER_ID | numeric | 19 | A unique ID for the reseller. This column is populated when an entitlement line item is created from a web register key and values identify the organization unit (account) of the parent bulk entitlement of the web register key. Reseller ID can be null. |
| PARENT_PRODUCT_ID | numeric | 19 | A 19-digit unique identifier of the entitlement's parent product. |

Table 3-6 ▪ Entitlement Facts

| Columns | Type | Length | Description |
|-------------------------------|---------|--------|---|
| CREATE_DATE_ID | numeric | 19 | A 19-digit unique identifier for the entitlement's creation date. CREATE_DATE_ID is a foreign key to the TIME_DIMENSION table. |
| LASTMODIFIED_DATE_ID | numeric | 19 | A 19-digit unique identifier for the entitlement's Last Modified Date. |
| ORDERED_SEAT_COUNT | numeric | 19 | Net copies available for the line item. This includes all new, upgrade, upsell and renew orders, and excludes all upgraded, upsold, renewed, obsolete, and inactive orders for a line item. |
| EXTENDED_SEAT_COUNT | numeric | 19 | Count of the activated products. This count includes the number of copies of a given product purchased on its own as well as those copies included in a suite. |
| MAINTENANCELINEITEM_ID | numeric | 19 | A 19-digit unique identifier for the maintenance ID record. MAINTENANCELINEITEM_ID is a foreign key element to the MAINTENANCE_LI_DIMENSION table. |

FULFILLMENT_FACT

This section describes the various fulfillment facts that the producer can use in reports.

Table 3-7 ▪ Fulfillment Facts

| Columns | Type | Length | Description |
|-------------------|---------|--------|---|
| ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the Fulfillment Fact record as defined in FlexNet Operations. |
| PRODUCT_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the Product Dimension record as defined in FlexNet Operations. PRODUCT_ID is a foreign key to the PRODUCT_DIMENSION table. |

Table 3-7 ▪ Fulfillment Facts


| Columns | Type | Length | Description |
|-----------------------------|---------|--------|---|
| LICENSE_MODEL_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the License Model Dimension record as defined in FlexNet Operations. LICENSE_MODEL_ID is a foreign key to the LICENSE_MODEL_DIMENSION table. |
| SKU_ID | numeric | 19 | A 19-digit unique identifier for the fulfillment's Part Number Dimension record. SKU_ID is a foreign key to the PART_NUMBER_DIMENSION table. |
| LINE_ITEM_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the Line Item Dimension record. LINE_ITEM_ID is a foreign key to the LINE_ITEM_DIMENSION table. |
| ORG_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the Organization Unit Dimension record. ORG_ID is a foreign key to the ORG_UNIT_DIMENSION table.  Note ▪ ORG_ID refers to the organization's account ID in FlexNet Operations. |
| RESELLER_ID | numeric | 19 | A unique ID for the reseller. This column is populated when an entitlement line item is created from a web register key and values identify the organization unit (account) of the parent bulk entitlement of the web register key. Reseller ID can be null. |
| PARENT_PRODUCT_ID | numeric | 19 | A 19-digit unique identifier of the fulfillment's parent product. |
| STATE_ID | numeric | 19 | A 19-digit unique identifier of the fulfillment's current state. |
| ACTION_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the fulfillment's Support Action Dimension record. ACTION_ID is a foreign key to the SUPPORT_ACTION_DIMENSION table. |
| ACTIVATION_DATE_ID | numeric | 19 | A 19-digit unique identifier of the fulfillment's Activation Date. ACTIVATION_DATE_ID is a foreign key to the TIME_DIMENSION table. |
| LASTMODIFIED_DATE_ID | numeric | 19 | A 19-digit unique identifier for the fulfillment's Last Modified Date. |

Table 3-7 ▪ Fulfillment Facts

| Columns | Type | Length | Description |
|--------------------------|---------|--------|--|
| FULFILLMENT_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the Fulfillment Dimension record. FULFILLMENT_ID is a foreign key to the FULFILLMENT_DIMENSION table. |
| FULFILLMENT_COUNT | integer | 10 | Number of copies fulfilled for a given ordered product. |

SERVED_CLIENT_FEATURE_FACT

The Served Client Feature Fact table records the features of the served client.

Table 3-8 ▪ Served Client Feature Fact Columns

| Columns | Type | Length | Description |
|-----------------------------|----------|--------|---|
| ID | numeric | 19 | A 19-digit unique identifier. This is the primary key for the table. |
| DEVICE_ID | numeric | 19 | The Device ID. This is a foreign key to the DEVICE_DIMENSION table. |
| PARENT_ID | varchar2 | 100 | The server ID, this tells who is the parent server for this served client. This is a foreign key to the DEVICE_DIMENSION table. |
| LASTMODIFIED_DATE_ID | numeric | 19 | The time when the served client was last modified. |
| LAST_SYNC_TIME_ID | numeric | 19 | The time when the served client was last synced with its server. |
| EXPIRATION_ID | numeric | 19 | The time when the served client's feature is going to expire. |
| FEATURE_NAME | varchar2 | 100 | The Feature name. |
| FEATURE_COUNT | numeric | 19 | The count of each feature. |
| SERVED_STATUS | varchar | 100 | The status of the served client. A server client status can be one of the following: <ul style="list-style-type: none"> ● NORMAL ● EXPIRED ● DROPPED |
| TENANT_ID | varchar2 | 255 | The Tenant ID. |

Report Dimensions

In reporting terms, a dimension is a set of related properties based on available data, which can be made use of in a report. Most dimensions have attributes that express some aspect of the dimension.

For example, the license model dimension includes the attributes of license model name, type, description and license technology.

- [List of Dimension Tables](#)
- [Custom Attributes and Custom Host Attributes in Dimension Tables](#)

List of Dimension Tables

The FlexNet Operations reporting database includes the following dimension tables:

- CONTACT_DIMENSION
- DEVICE_DIMENSION
- ENTITLEMENT_DIMENSION
- FULFILLMENT_DIMENSION
- LICENSE_MODEL_DIMENSION
- LINE_ITEM_DIMENSION
- MAINTENANCE_LI_DIMENSION
- ORG_UNIT_DIMENSION
- PART_NUMBER_DIMENSION
- PRODUCT_DIMENSION
- SUPPORT_ACTION_DIMENSION
- TIME_DIMENSION
- USER_DIMENSION



Note ▪ The `EVENT_TYPE_DIMENSION` table also exists in the reporting database, but it is not used by FlexNet Operations reporting. This table is a simple lookup table to look up event types by their event type ID.

Custom Attributes and Custom Host Attributes in Dimension Tables

In addition to the columns listed in the dimension tables, you may include your custom license model attributes and custom host attributes in your reporting model.

- Custom license model attributes are supported in reports only for fulfillment-time and entitlement-time attributes. Entitlement-time custom license model attributes are carried in the `LINE_ITEM_DIMENSION` table. Fulfillment-time custom license model attributes are carried in the `FULFILLMENT_DIMENSION` table.
- Custom host model attribute columns are carried in the `DEVICE_DIMENSION` table.

Because of the nature of custom attributes, you must track them independently of the standard dimensions.

CONTACT_DIMENSION

The Contact dimension stores data about contacts.



Note - If the EMAIL of a contact is updated or a contact is upgraded to a user and a device was mapped to the contact, this will not be reflected in reporting until there is an update for the device.

Table 3-9 - Contact Dimension Columns

| Columns | Type | Length | Description |
|----------------|----------|--------|-------------------------------------|
| ID | numeric | 19 | This is the primary key. |
| FIRSTNAME | nvarchar | 150 | First Name of the contact. |
| LASTNAME | nvarchar | 150 | Last Name of the contact. |
| PHONE | nvarchar | 50 | Phone number of the contact. |
| EMAIL | nvarchar | 100 | Email ID of the contact. |
| DISPLAYNAME | nvarchar | 255 | Display Name of the contact. |
| STREET_ADDRESS | nvarchar | 3000 | Street Address of the contact. |
| CITY | nvarchar | 150 | City of the contact. |
| COUNTRY | nvarchar | 75 | Country of the contact. |
| TENANT_ID | nvarchar | 255 | The tenant ID data for the contact. |

DEVICE_DIMENSION

The Device dimension (DEVICE_DIMENSION) contains device records with details about the device name, alias, type, status and so on. The following attributes are available for each entity in this dimension and can be used in reports.

In addition to the columns documented here, the DEVICE_DIMENSION table includes a column for each custom host attribute you load in to the reporting database. Columns for custom host attributes can be added to this dimension in the Administrative Console. Click **Configure Reporting Server > Add Custom Host Attributes**.

Table 3-10 - Device Dimension Columns

| Columns | Type | Length | Description |
|---------|---------|--------|--|
| ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the Device dimension. |

Table 3-10 • Device Dimension Columns

| Columns | Type | Length | Description |
|---------------------------|--------|--------|--|
| DEVICE_NAME | string | 2000 | A 2000-character (non-nullable) name of the device. |
| BACKUP_DEVICE_NAME | string | 2000 | A 2000-character (nullable) backup name for the device. Only used for server devices. |
| DEVICE_ALIAS | string | 64 | A 64-character (nullable) device alias. |
| DEVICE_TYPE | string | 64 | A 64-character (nullable) device type. The possible values are CLIENT, SERVER or SERVED_CLIENT. |
| DESCRIPTION | string | 2000 | A 2000-character (nullable) description of the device. |
| STATUS | string | 64 | A 64-character (nullable) status statement for the device. Device status can be ACTIVE or OBSOLETE. |
| MACHINE_TYPE | string | 64 | A 64-character (nullable) machine type. The possible machine type values are PHYSICAL, VIRTUAL, or UNKNOWN. |
| VM_NAME | string | 64 | A 64-character (nullable) VM name for the device. VM_NAME is null if MACHINE_TYPE is not VIRTUAL. |
| HOST_TYPE | string | 255 | A 255-character (nullable) host type. The host type FLX_CLIENT and FLEX_SERVER are common host types, but no additional restrictions are placed on the value of HOST_TYPE. |
| HOST_ID_TYPE | string | 64 | A 64-character host ID type. Common values are ETHERNET, FLEXID_9, FLEXID_10, String, and VM_UUID. Default: String. |
| PUBLISHER | string | 64 | A 64-character producer name. |
| PUBLISHER_IDENTITY | string | 64 | A 64-character (nullable) identifier for the device producer. |

Table 3-10 • Device Dimension Columns

| Columns | Type | Length | Description |
|--------------------|----------|--------|--|
| USER_STRING | varchar2 | 255 | <p>If the Device user option is set to On with validation and the device is mapped to a user, this is the user name. If the device is mapped to a contact, this is the contact’s email ID The USER_STRING is a foreign key to the CONTACT_DIMENSION table.</p> <p>If the Device user option is set to On without validation and the device is mapped to a user or a contact, this is the plain text string provided with the device during activation.</p> <p>If the Device user option is set to Off (default setting) or the device is mapped to a user or a contact, this is null.</p> <p>See “Configuring FlexNet Operations” in the Producer Portal Help Guide for more information on configuring the Device user option.</p> |

ENTITLEMENT_DIMENSION

The Entitlement dimension stores data about entitlements. .

Table 3-11 • Entitlement Dimension Columns

| Columns | Type | Length | Description |
|------------------------|----------|--------|--|
| ID | numeric | 19 | This is the primary key. |
| ENTITLEMENT_ID | numeric | 19 | The entitlement ID. |
| TENANT_ID | nvarchar | 255 | The tenant ID data for the entitlement. |
| SHIP_TO_EMAIL | nvarchar | 1024 | The email to which the entitlement should be shipped. SHIP_TO_EMAIL can be null. |
| SHIP_TO_ADDRESS | nvarchar | 1000 | The address to which the entitlement should be shipped. SHIP_TO_ADDRESS can be null. |
| COMMENTS | nvarchar | 2000 | Description about the entitlement. COMMENTS can be null. |

FULFILLMENT_DIMENSION

This dimension contains all fulfillment records and their details. All fulfillment records including obsolete fulfillment records are copied to the reporting database.

In addition to the columns documented here, the FULFILLMENT_DIMENSION table includes a column for each fulfillment-time custom attribute you load in to the reporting database. Columns for custom attributes can be added to this dimension in the administrative console. Click **Configure Reporting Server > Add Custom Attributes**.

The following attributes are available for each entity in this dimension and can be used in reports.

Table 3-12 • Fulfillment Dimension Columns

| Columns | Type | Length | Description |
|------------------------|---------|--------|---|
| ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the Fulfillment dimension. |
| FULFILLMENT_ID | string | 255 | A 255-character, non-nullable unique identifier of the fulfillment record as defined in FlexNet Operations. |
| STATUS | string | 255 | State of the fulfillment record: Active or Obsolete. |
| ACTIVATION_TYPE | string | 64 | Method of activation for trusted storage activations. The following choices are available: <ul style="list-style-type: none"> ● SHORTCODE: Trusted storage fulfillment records generated using keyboard (short code) activation. ● MANUAL: Trusted storage fulfillment records generated using manual (or offline activation) by using manually processing request and response XML files. ● PROGRAMMATIC: Trusted storage fulfillment records generated using regular online activation from the client. ● CERTIFICATE: Certificate licenses. ● TRUSTED: Legacy trusted storage fulfillment records which do not have specific information about how they were activated. ● EMBEDDED: Licenses generated using FlexNet Embedded for hardware devices. ● CUSTOM: Fulfillment records that belong to any non-FlexNet licensing technology. |

Table 3-12 • Fulfillment Dimension Columns

| Columns | Type | Length | Description |
|-------------------------|--------|--------|--|
| LIFECYCLE_STATUS | string | 64 | <p>Indicates any support action on the fulfillment record. The following choices are available:</p> <ul style="list-style-type: none"> ● Master: A new fulfillment record ● Returned: A fulfillment record that has been returned. ● Rehosted: A fulfillment record that has been rehosted. ● Repaired: A fulfillment record that has been repaired. ● Reinstalled: A fulfillment record that has been reinstalled. ● Emergency: A fulfillment record that was created as an emergency license. ● Stop Gap: A fulfillment record that was created as a stop gap license. ● Upgraded: A fulfillment record that was upgraded to another fulfillment record. ● Upsold: A fulfillment record that was created was upsold to another fulfillment record. ● Renewed: A fulfillment record that was created was renewed to another fulfillment record. |
| PLATFORM_TYPE | string | 64 | <p>Indicates the platform on which a trusted storage license is activated. In FlexNet Operations 11.5.0.1 and FlexNet Publisher 11.5, the platform type is included in the trusted storage activation requests. This platform type is copied to the reporting database.</p> <p>The choices are:</p> <ul style="list-style-type: none"> ● i86_n3 (Windows) ● i86_re3 (Linux) ● Mac ● Other types supported by FlexNet Publisher Licensing Toolkit |

Table 3-12 • Fulfillment Dimension Columns

| Columns | Type | Length | Description |
|---------------------------|--------|--------|---|
| FULFILLMENT_SOURCE | string | 255 | Indicates the activation process used for fulfillment. Choices are <ul style="list-style-type: none"> ● ONLINE: For fulfillment records generated using web services. ● APPLICATION: For fulfillment records generated using FlexNet Operations user interface. ● LEGACY: Used for legacy fulfillment records that do not have information about how the fulfillment records were generated. |
| HOST_ID | string | 255 | Host on which the license is activated. <ul style="list-style-type: none"> ● For certificate licenses, HOST_ID is the usual host identifier (like INTERNET=64.0.0.1). ● For trusted licenses, HOST_ID is UMN or Machine Identifier. ● For non-FlexNet technologies, HOST_ID is the custom host identifier. |

LICENSE_MODEL_DIMENSION

This dimension represents the license model used to create the entitlement line item. All non-draft license models defined in FlexNet Operations database are copied to the reporting database.

The following attributes are available for each entity in this dimension and can be used in reports.

Table 3-13 • License Model Dimension Columns

| Columns | Type | Length | Description |
|-------------|---------|--------|---|
| ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the License Model dimension. |
| NAME | string | 128 | A non-nullable, unique name of the license model, as defined in FlexNet Operations. |

Table 3-13 • License Model Dimension Columns

| Columns | Type | Length | Description |
|---------------------------|--------|--------|--|
| TYPE | string | 32 | Type of the license model. The following choices are available. <ul style="list-style-type: none"> • Floating Counted • Floating Uncounted • Nodelocked Uncounted • Nodelocked Counted • Retail Activation • Enterprise Activation • Floating Transferable (Trusted - Concurrent) • Floating Borrowable (Hybrid) • Custom |
| DESCRIPTION | string | 2000 | Optional description of the license model, as defined in FlexNet Operations. |
| LICENSE_TECHNOLOGY | string | 50 | License technology associated with the license model. The following choices are available: <ul style="list-style-type: none"> • FlexNet - Certificate • FlexNet - Trusted • FlexNet - Embedded • Various non-FlexNet License Technology names. |

LINE_ITEM_DIMENSION

This dimension contains the details of entitlement line items. Only non-draft and non-test line items are copied to the reporting database. Web register keys are not copied to the reporting database.

In addition to the columns documented here, the LINE_ITEM_DIMENSION table includes a column for each entitlement-time custom attribute you load in to the reporting database. Columns for custom attributes can be added to this dimension in the administrative console. Click **Configure Reporting Server > Add Custom Attributes**.

The following attributes are available for each entity in this dimension and can be used in reports.

Table 3-14 - Line Item Dimension Columns

| Attribute | Type | Length | Description |
|-----------------------------------|---------|--------|--|
| ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the Line Item dimension. |
| ENTITLEMENT_ID | string | 255 | A non-nullable, unique identifier of the entitlement as defined in FlexNet Operations. |
| ACTIVATION_ID | string | 255 | A non-nullable, unique identifier of the entitlement line item as defined in FlexNet Operations. |
| ORDER_ID | string | 255 | Order ID defined for the entitlement line item. This field is typically used to correlate the data back to an ERP system. ORDER_ID can be null. |
| ORDER_LINE_NUMBER | string | 255 | Order line number defined for the entitlement line item. This field is also typically used to correlate the data back to an ERP system. ORDER_LINE_NUMBER can be null. |
| PARENT_BULK_ENTITLEMENT_ID | string | 255 | If this entitlement line item is created by activating a web register key, this field will track the parent bulk entitlement of the web register key. |
| STATE | string | 64 | State of the entitlement line item: deployed, inactive or obsolete. |

Table 3-14 • Line Item Dimension Columns

| Attribute | Type | Length | Description |
|----------------------|---------|--------|---|
| ORDER_TYPE | string | 64 | <p>Indicates how and why the line item was created; that is, whether it is part of a new order, or it an upgrade from another line item and so on. The choices are:</p> <ul style="list-style-type: none"> ● Seat Changed ● Upgraded To ● Upgraded From ● Renewed To ● Renewed From ● Upsold To ● Upsold From ● Obsolete ● Inactive ● State Changed ● Deployed |
| DESCRIPTION | string | 3000 | Optional description of the line item from FlexNet Operations. |
| ISUPGRADED | boolean | | Indicates that this line item has been upgraded. The value for ISUPGRADED is 0 (false) or 1 (true). |
| ISRENEWED | boolean | | Indicates that this line item has been renewed. The value for ISRENEWED is 0 (false) or 1 (true). |
| ISUPSOLD | boolean | | Indicates that this line item has been upsold. The value for ISUPSOLD is 0 (false) or 1 (true). |
| ISMAINTENANCE | boolean | | <p>Indicates that this line item has maintenance. The value for ISMAINTENANCE is 0 (false) or 1 (true).</p> <p>Maintenance items are not transformed. But this column indicates whether or not a maintenance item is associated with the line item. Maintenance item start and end dates are transformed in to the reporting database.</p> |

Table 3-14 • Line Item Dimension Columns

| Attribute | Type | Length | Description |
|------------------------|--------|--------|---|
| ENT_DESCRIPTION | string | 2000 | Optional description of the parent entitlement from FlexNet Operations. |

MAINTENANCE_LI_DIMENSION

The Maintenance Line Item dimension stores data about entitlements and line items for maintenance products.

Table 3-15 • Maintenance Line Item Dimension Columns

| Columns | Type | Length | Description |
|----------------------------|----------|--------|--|
| ID | numeric | 19 | A unique identifier of the maintenance ID record as defined in FlexNet Operations. |
| ACTIVATION_ID | string | 255 | An identifier for a maintenance line item in FlexNet Operations. |
| ENTITLEMENT_ID | string | 255 | An identifier for entitlement, to which maintenance is associated. |
| ORDER_ID | string | 255 | This is specified in FlexNet operations while creating a maintenance line item. ORDER_ID can be null |
| ORDER_LINE_NUMBER | string | 255 | This is specified in FlexNet operations while creating a maintenance line item. ORDER_LINE_ITEM can be null. |
| STATE | string | 64 | Represents the current state of maintenance line item (Deployed/Obsolete). STATE can be null. |
| TENANT_ID | string | 255 | An Identifier representing tenant, to which this maintenance belongs. TENANT_ID can be null. |
| START_DATE | datetime | | Maintenance product start date. START_DATE can be null. |
| END_DATE | datetime | | Maintenance product Expiration date. END_DATE can be null. |
| MAINTENANCE_PRODUCT | varchar | 255 | Maintenance product name. MAINTENANCE_PRODUCT can be null. |
| MAINT_PART_NUMBER | varchar | 255 | Part Number associated with maintenance product. MAINT_PART_NUMBER can be null. |

ORG_UNIT_DIMENSION

This dimension is the organization unit (account) to which the entitlement was sold. All organization units are at the same level in the reporting database and are not hierarchical.

Seed organization units like producer's home organization unit and UNKNOWN_ORG_UNIT are copied to the reporting database as well, as entitlements may be associated with these organization units. PORTAL_ORG_UNIT is not copied.

For simple entitlements, the organization unit records identify the account in the End Customer tier. However, for simple entitlements created from redeemed web register keys, the organization unit records identify the account in the Distributor tier.

For bulk entitlements, the organization unit records identify the account in the Distributor tier; accounts not in the Distributor tier are unavailable for reporting.

For devices, the organization unit records identify the account in the End Customer tier; accounts not in the End Customer tier are unavailable for reporting.

Reports cannot be constructed using the account hierarchy structure, nor around users and their assigned accounts. However, you can still report on entitlements linked to individual accounts.

The following columns are available for each entity in this dimension and can be used in reports.

Table 3-16 - ORG_UNIT_DIMENSION Columns


| Column | Type | Length | Description |
|---------------------|---------|--------|---|
| ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the Organization Unit (account) dimension. |
| NAME | string | 128 | Unique name of the account as defined in FlexNet Operations. (For example, Stark International Enterprises).  Note - Names longer than 128 characters are truncated in the data transformation. |
| DISPLAY_NAME | string | 255 | Display name of the account as defined in FlexNet Operations. (For example, Stark.) |
| DESCRIPTION | string | 255 | Optional description of the account. |
| ADDR_ADDR1 | string | 255 | First line of optional account address. |
| ADDR_ADDR2 | string | 255 | Second line of optional account address. |
| CITY | string | 150 | City where the account is situated. |
| COUNTRY | string | 75 | Country where the account is situated. |

Table 3-16 • ORG_UNIT_DIMENSION Columns

| Column | Type | Length | Description |
|---------------------|-----------|--------|---|
| REGION | string | 75 | Region where the account is situated, for instance, EMEA or APAC. |
| TENANT_ID | string | 255 | An Identifier representing tenant, to which the account belongs. |
| CREATEDATE | timestamp | 6 | Account created date. |
| LASTUPDATED | timestamp | 6 | Account updated date. |
| ACCOUNT_TYPE | string | 255 | Can be one of the following: <ul style="list-style-type: none"> ● HOME ● PUBLISHER ● CUSTOMER ● SELF_REGISTERED ● UNKNOWN ● CHANNEL_PARTNER |

PART_NUMBER_DIMENSION

This dimension represents the part number used to create the entitlement line item. Note that part number is not a required attribute for a line item in FlexNet Operations. Hence, some facts may not have part number associated with them. If the part number is not associated to the fact, it will show up empty in the report.

The following attributes are available for each entity in this dimension and can be used in reports.

Table 3-17 • Part Number Dimension Columns

| Columns | Type | Length | Description |
|--------------------|---------|--------|---|
| ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the Part Number dimension. |
| NAME | string | 50 | Actual part number as defined in FlexNet Operations. NAME cannot be null. |
| DESCRIPTION | string | 2000 | Optional description of the part number. |

PRODUCT_DIMENSION

The Product dimension represents the product or suite specified in the entitlement line item. Note that all non-draft products in the FlexNet Operations database are copied to the reporting database.

The following attributes are available for each entity in this dimension and can be used in reports.

Table 3-18 • Product Columns

| Columns | Type | Length | Description |
|------------------------------|---------|--------|---|
| ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the Product dimension. |
| NAME | string | 128 | Name of the product or suite as defined in FlexNet Operations. |
| VERSION | string | 64 | Version of the product or suite as defined in FlexNet Operations. |
| NAME_VERSION | string | 192 | A compound attribute obtained by concatenating the name and version. Name and version form the unique identifier for the product in the FlexNet Operations database. This dimension attribute can be used to obtain counts for a specific product entity. |
| DESCRIPTION | string | 2000 | The optional description of the product, as defined in FlexNet Operations. |
| TYPE | string | 50 | The type of the product, such as Product or Suite. TYPE cannot be null. |
| START_DATE | string | 64 | The optional start date of this product. Date format is YYYY-MM-DD HH:MM:SS. |
| END_DATE | string | 64 | The optional end date of this product. Date format is YYYY-MM-DD HH:MM:SS. |
| LICENSE_TECHNOLOGY_ID | numeric | 19 | The numeric ID of the license technology. |
| PACKAGE_NAME | string | 64 | The optional unique name of the package. If specified, PACKAGE_VERSION is also required to be set. |
| PACKAGE_VERSION | string | 64 | The optional numeric version format. Required if PACKAGE_NAME is specified. |

Table 3-18 • Product Columns

| Columns | Type | Length | Description |
|-----------------------|---------|--------|---|
| USED_ON_DEVICE | numeric | 2 | Optional field specifying if the product can be used on the device. <ul style="list-style-type: none"> • 1 = Yes • 2 = No |
| USAGE_MODEL_ID | string | 64 | Available when the USED_ON_DEVICE is set to Yes. |
| PRODUCT_LINE | string | 64 | Optional product line to map to the product. |
| PRODUCT_STATUS | string | 64 | Status of the product |

SUPPORT_ACTION_DIMENSION

The Support Action dimension table contains only ID and ACTION columns to record support actions types related to fulfillment and entitlement events.

Table 3-19 • Support Action Dimension Columns

| Columns | Type | Length | Description |
|---------------|---------|--------|--|
| ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the Support Action dimension. |
| ACTION | string | 128 | A 128-character, non-nullable, support action. ACTION can be <ul style="list-style-type: none"> • MASTER • REHOST • RETURN • REPAIR • STOPGAP • EMERGENCY • PUBLISHER_ERROR • REGENERATE |

TIME_DIMENSION

Date values in all tables are tied to TIME_DIMENSION by the ID. By default, the time dimension contains time and date values for a 20-year period. This period can be extended using the `extendTimeDimension` command. To do so, change to your FlexNet Operations install directory and enter `flexnet extendTimeDimension`.

Table 3-20 • Time Dimension Columns

| Columns | Type | Length | Description |
|---------------------|----------|--------|--|
| ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the Time dimension. |
| DATEVAL | datetime | 8 | Date as a date type. DATEVAL can be used to do date arithmetic for reports. |
| DATE_NUMBER | numeric | 19 | Date as a number. DATE_NUMBER can be null. |
| DATE_STRING | string | 50 | Date as a string. DATE_STRING can be null. |
| HR_OF_DAY | numeric | 2 | Hour of the day. |
| DAY_NAME | string | 50 | Name of the day. |
| WEEK_NUMBER | numeric | 2 | Number of the week in the year, from 1-52. |
| MONTH_NUMBER | numeric | 2 | Number of the month in the year, from 1-12. |
| DAY_OF_MONTH | numeric | 2 | Number of the day in the month. |
| MONTH_NAME | string | 50 | Name of the month. |
| DAY_OF_YEAR | numeric | 3 | Number of the day in the year. |
| QUARTER | numeric | 1 | Number of the quarter in the year, from 1-4. |
| YEAR | numeric | 4 | Number (4 digits) of the year. |

USER_DIMENSION

The User dimension stores details from user accounts. Only user accounts with usernames are transformed into the reporting database. User accounts that do not include a username are not available for reporting.

Table 3-21 • User Dimension Columns

| Columns | Type | Length | Description |
|-----------------------------|---------|--------|---|
| ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the User dimension. |
| USER_ID | string | 255 | A non-nullable, user ID specified in FlexNet Operations for this user (the identifier the user uses to log in). |
| FIRSTNAME | string | 150 | First name of the user, as defined in FlexNet Operations. |
| LASTNAME | string | 150 | Last name of the user, as defined in FlexNet Operations. |
| EMAIL | string | 100 | Email address of the user, as defined in FlexNet Operations. |
| PHONE | string | 50 | Phone number of the user, as defined in FlexNet Operations |
| STREET_ADDRESS | string | 3000 | Street part of the address specified for the user. |
| CITY | string | 150 | City part of the address specified for the user. |
| COUNTRY | string | 75 | Country part of the address specified for the user. |
| STATUS | string | 255 | Shows whether the user is ACTIVE or INACTIVE. |
| TENANT_ID | string | 255 | An Identifier representing tenant, to which this maintenance belongs. |
| RENEWAL_SUBSCRIPTION | bit | | Indicates whether the user should receive renewal reminders about expiring and expired entitlements. The value for RENEWAL_SUBSCRIPTION is 0 (false) or 1 (true). |
| SHAREDLOGIN | bit | | Indicates whether the user is a shared login or not. The value for SHAREDLOGIN is 0 (false) or 1 (true). |
| SYSTEMADMIN | bit | | Indicates whether the user is a system admin or not. The value for SYSTEMADMIN is 0 (false) or 1 (true). |

Table 3-21 • User Dimension Columns

| Columns | Type | Length | Description |
|-----------------------------|----------|--------|---|
| LASTUPDATED | datetime | | The date and time the user was last updated. LASTUPDATED can be null. |
| LASTAUTHENTICATED | datetime | | The date and time the user was last authenticated. LASTAUTHENTICATED can be null. |
| CREATEDATE | datetime | | The date and time the user was created. CREATEDATE can be null. |
| RENEWAL_SUBSCRIPTION | NUMBER | 1 | Stores the user information for the Expiring entitlements email check box value. |

Custom Attribute Tables

The Custom Attribute tables store custom content that is used in the End-User Portal to customize page instructions on supported pages, add announcements to the home page, or create standalone pages.

- ENTITLEMENT_CUSTOM_ATTR
- LICENSE_MODEL_CUSTOM_ATTR
- LINE_ITEM_CUSTOM_ATTR
- MAINTENANCE_LI_CUSTOM_ATTR
- ORG_UNIT_CUSTOM_ATTR
- PRODUCT_CUSTOM_ATTR
- USER_CUSTOM_ATTR

ENTITLEMENT_CUSTOM_ATTR

The Entitlement Custom Attributes table holds all the custom attributes belonging to entitlements.

Table 3-22 • Entitlement Custom Attributes Columns

| Columns | Type | Length | Description |
|-----------------------|---------|--------|---|
| ID | numeric | 19 | A 19-digit unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the Entitlement custom attribute. |
| ENTITLEMENT_ID | numeric | 19 | A 19-digit unique identifier of the entitlement. ENTITLEMENT_ID is a foreign key to the LINE_ITEM_DIMENSION table. |

Table 3-22 • Entitlement Custom Attributes Columns

| Columns | Type | Length | Description |
|-------------------------|---------|--------|---|
| TENANT_ID | varchar | 255 | The tenant ID data for the entitlement. |
| CA1_NAME CA1_VALUE | varchar | 255 | The Name/Value pairs of the Entitlement custom attribute. |
| CA2_NAME CA2_VALUE | | | |
| . | | | |
| . | | | |
| . | | | |
| CA30_NAME CA30_VALUE | | | |

LICENSE_MODEL_CUSTOM_ATTR

The License Model Custom Attributes table holds all the custom attributes belonging to license models.

Table 3-23 • License Model Custom Attributes Columns

| Columns | Type | Length | Description |
|------------------|---------|--------|---|
| ID | numeric | 19 | A 19-digit unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the License Model custom attribute. |
| LICENSE_MODEL_ID | numeric | 19 | A 19-digit unique identifier of the license model. LICENSE_MODEL_ID is a foreign key to the LICENSE_MODEL_DIMENSION table. |
| FULFILLMENT_ID | numeric | 19 | A 19-digit unique identifier of the fulfillment ID. FULFILLMENT_ID is a foreign key to the LICENSE_MODEL_DIMENSION table. |
| ACTIVATION_ID | numeric | 19 | A 19-digit unique identifier of the activation ID. ACTIVATION_ID is a foreign key to the LICENSE_MODEL_DIMENSION table. |
| TENANT_ID | varchar | 255 | The tenant ID data for the license model. |

Table 3-23 • License Model Custom Attributes Columns

| Columns | Type | Length | Description |
|-------------------------|---------|--------|---|
| CA1_NAME CA1_VALUE | varchar | 255 | The Name/Value pairs of the License Model custom attribute. |
| CA2_NAME CA2_VALUE | | | |
| . | | | |
| . | | | |
| . | | | |
| CA30_NAME CA30_VALUE | | | |

LINE_ITEM_CUSTOM_ATTR

The Line Item Custom Attributes table holds all the custom attributes belonging to line items.

Table 3-24 • Line Item Custom Attributes Columns

| Columns | Type | Length | Description |
|-------------------------|---------|--------|---|
| ID | numeric | 19 | A 19-digit unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the Line Item custom attribute. |
| ACTIVATION_ID | numeric | 19 | A 19-digit unique identifier of the line item. ACTIVATION_ID is a foreign key to the LINE_ITEM_DIMENSION table. |
| TENANT_ID | varchar | 255 | The tenant ID data for the line item. |
| CA1_NAME CA1_VALUE | varchar | 255 | The Name/Value pairs of the Line Item custom attribute. |
| CA2_NAME CA2_VALUE | | | |
| . | | | |
| . | | | |
| . | | | |
| CA30_NAME CA30_VALUE | | | |

MAINTENANCE_LI_CUSTOM_ATTR

The License Model Custom Attributes table holds all the custom attributes belonging to maintenance line items.

Table 3-25 • Maintenance Line Item Custom Attributes Columns

| Columns | Type | Length | Description |
|---------------------------------------|---------|--------|---|
| ID | numeric | 19 | A 19-digit unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the Maintenance Line Item custom attribute. |
| ACTIVATION_ID | numeric | 19 | A 19-digit unique identifier of the activation ID. ACTIVATION_ID is a foreign key to the MAINTENANCE_LI_DIMENSION table. |
| TENANT_ID | varchar | 255 | The tenant ID data for the maintenance line item. |
| CA1_NAME CA1_VALUE | varchar | 255 | The Name/Value pairs of the License Model custom attribute. |
| CA2_NAME CA2_VALUE | | | |
| . | | | |
| . | | | |
| . | | | |
| CA30_NAME CA30_VALUE | | | |

ORG_UNIT_CUSTOM_ATTR

The Organization Unit Custom Attributes table holds all the custom attributes belonging to accounts.

Table 3-26 • Organization Unit Custom Attributes Columns


| Columns | Type | Length | Description |
|---------------|---------|--------|---|
| ID | numeric | 19 | A 19-digit unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the Organization Unit (account) custom attribute. |
| ORG_ID | numeric | 19 | A 19-digit unique identifier of the organization. ORG_ID is a foreign key to the ORG_UNIT_DIMENSION table. |
| | | |  <p>Note • <i>ORG_ID</i> refers to the organization's account ID in FlexNet Operations.</p> |

Table 3-26 • Organization Unit Custom Attributes Columns

| Columns | Type | Length | Description |
|-------------------------|---------|--------|---|
| TENANT_ID | varchar | 255 | The tenant ID data for the account. |
| CA1_NAME CA1_VALUE | varchar | 255 | The Name/Value pairs of the Organization Unit (account) custom attribute. |
| CA2_NAME CA2_VALUE | | | |
| . | | | |
| . | | | |
| . | | | |
| CA30_NAME CA30_VALUE | | | |

PRODUCT_CUSTOM_ATTR

The Product Custom Attributes table holds all the custom attributes belonging to products.

Table 3-27 • Product Custom Attributes Columns

| Columns | Type | Length | Description |
|-------------------------|---------|--------|---|
| ID | numeric | 19 | A 19-digit unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the Product custom attribute. |
| PRODUCT_ID | numeric | 19 | A 19-digit unique identifier of the product. PRODUCT_ID is a foreign key to the PRODUCT_DIMENSION table. |
| TENANT_ID | varchar | 255 | The tenant ID data for the product. |
| CA1_NAME CA1_VALUE | varchar | 255 | The Name/Value pairs of the Product custom attribute. |
| CA2_NAME CA2_VALUE | | | |
| . | | | |
| . | | | |
| . | | | |
| CA30_NAME CA30_VALUE | | | |

USER_CUSTOM_ATTR

The User Custom Attributes table holds all the custom attributes belonging to users.

Table 3-28 • User Custom Attributes Columns

| Columns | Type | Length | Description |
|-------------------------|---------|--------|--|
| ID | numeric | 19 | A 19-digit unique identifier of the device record as defined in FlexNet Operations. The ID is the primary key for the User custom attribute. |
| USER_ID | numeric | 19 | A 19-digit unique identifier of the user. USER_ID is a foreign key to the USER_DIMENSION table. |
| CA1_NAME CA1_VALUE | varchar | 255 | The Name/Value pairs of the User custom attribute. |
| CA2_NAME CA2_VALUE | | | |
| . | | | |
| . | | | |
| . | | | |
| CA30_NAME CA30_VALUE | | | |

Other Tables

Other than the fact and dimension tables included in prior sections of this chapter, the reporting database includes the following tables:

- ENTITLEMENT_CHANNEL_PARTNERS
- FULFILLMENT_DATES
- LINE_ITEM_DATES
- LINE_ITEM_RELATION
- LINE_ITEM_USERS
- MAINTENANCE_LI_RELATION
- OPS_REPORTING_ENTY_STATUS
- ORG_HIERARCHY
- PARTNER_RELATED_ORGS
- PRODUCT_RELATION
- RPT_MODULE
- USER_ORG_RELATION

- [USER_ORG_ROLE](#)

ENTITLEMENT_CHANNEL_PARTNERS

The Entitlement Channel Partners table is used to transform entitlements for intermediate tiers when there is more than one channel partner.



Note - If a bulk entitlement is transformed to the ENTITLEMENT_CHANNEL_PARTNERS table, then the values for End Customer and Tier1 partner are set to the same account.

Table 3-29 - Entitlement Channel Partners Columns

| Columns | Type | Length | Description |
|----------------|---------|--------|--|
| ENTITLEMENT_ID | numeric | 19 | A 19-digit unique identifier of the entitlement. ENTITLEMENT_ID is a foreign key to the ENTITLEMENT_DIMENSION table. |
| TIER_NAME | varchar | 255 | The name of the partner tier. |
| ORGUNIT_ID | numeric | 19 | A 19-digit (non-nullable) unique identifier of the device record as defined in FlexNet Operations. It is a foreign key. The ORGUNIT_ID is the primary key to the ORG_UNIT_DIMENSION table. |
| TENANT_ID | string | 255 | The tenant ID data for the account. |

FULFILLMENT_DATES

The Fulfillment Dates table ties key dates to fulfillments.

Table 3-30 - Fulfillment Dates Columns

| Columns | Type | Length | Description |
|--------------------|---------|--------|--|
| FULFILLMENT_ID | numeric | 19 | A 19-digit unique identifier of the fulfillment record as defined in FlexNet Operations. |
| EXPIRATION_DATE_ID | numeric | 19 | A 19-digit unique identifier of the expiration date for a fulfillment. |
| START_DATE_ID | numeric | 19 | A 19-digit unique identifier of the start date for a fulfillment. |

LINE_ITEM_DATES

The Line Item Dates table ties key dates to line items.

Table 3-31 • Line Item Dates Columns




| Columns | Type | Length | Description |
|----------------------------|---------|--------|--|
| LINE_ITEM_ID | numeric | 19 | A 19-digit unique identifier of the line item record as defined in FlexNet Operations. |
| VERSION_DATE_ID | numeric | 19 | A 19-digit unique identifier for the line item's version date. |
| EXPIRATION_DATE_ID | numeric | 19 | A 19-digit unique identifier of the expiration date for a line item. A value of -1 means the line item is not permanent (existing functionality). A value of -2 means the expiration date cannot be definitively determined and depends on when the activation was performed. |
| START_DATE_ID | numeric | 19 | A 19-digit unique identifier of the start date for a line item. |
| MAINT_START_DATE_ID | numeric | 19 | A 19-digit unique identifier of the start date for a maintenance item. |
| MAINT_END_DATE_ID | numeric | 19 | A 19-digit unique identifier of the end date for a maintenance item. |
| START_DATE_OPTION | string | 40 | This field has the following options: <ul style="list-style-type: none"> ● SPECIFY_AT_EACH_ACTIVATION ● USE_FIRST_ACTIVATION_DATE ● SPECIFY_AT_FIRST_ACTIVATION ● USE_EACH_ACTIVATION_DATE ● SPECIFY_VALUE_NOW  Note • This column is null for maintenance line items. |
| DURATION | string | 10 | Specifies the duration unit type.  Note • This column is null for maintenance line items. |

Table 3-31 • Line Item Dates Columns

| Columns | Type | Length | Description |
|---|---------|--------|---|
| DURATION_UNITS | numeric | 10 | Represents the number of YEAR, MONTH, WEEK, and DAY |
| | | |  |
| Note • This column is null for maintenance line items. | | | |

LINE_ITEM_RELATION

The Line Item Relation table records the relation between line item and a parent line item.

Table 3-32 • Line Item Relation Columns

| Columns | Type | Length | Description |
|----------------------------|---------|--------|--|
| LINE_ITEM_ID | numeric | 19 | It is a foreign key. The ID is the primary key for the Line Item dimension. |
| RELATION_TYPE | varchar | 255 | Defines what relation exists between a child and parent line item. Valid values include: <ul style="list-style-type: none"> • UPGRADE • RENEWAL • UPSSELL |
| PARENT_LINE_ITEM_ID | numeric | 19 | This is a foreign key. The ID is the primary key for the parent Line Item in the Line Item Dimension table. |

LINE_ITEM_USERS

The Line Item Users table ties users to line items.

Table 3-33 • Line Item Users Columns

| Columns | Type | Length | Description |
|---------------------|---------|--------|--|
| LINE_ITEM_ID | numeric | 19 | A 19-digit unique identifier of the line item record as defined in FlexNet Operations. |
| USER_ID | numeric | 19 | A 19-digit unique identifier for the user ID specified in FlexNet Operations for this user (the identifier the user uses to log in). |

MAINTENANCE_LI_RELATION

The Maintenance Line Item Relation table records the relation between line item and maintenance line items..

Table 3-34 • Maintenance/Line Item Relation Columns

| Columns | Type | Length | Description |
|---------------------------------|---------|--------|---|
| MAINTENANCE_LINE_ITEM_ID | numeric | 19 | A unique identifier of the maintenance record as defined in FlexNet Operations. |
| LINE_ITEM_ID NUMERIC | numeric | 19 | A unique identifier for the Line item ID to which the particular maintenance is mapped. |

OPS_REPORTING_ENTY_STATUS

The Operations Reporting Entity Status table records the state of the data transformation. It indicates the last entity that was transformed and when that transformation took place. This is an essential housekeeping table for the FlexNet Operations reporting database, but is not intended to be queried by users generating reports.


Table 3-35 • Operations Reporting Entity Status Columns

| Columns | Type | Length | Description |
|----------------------------|-----------|--------|--|
| ID | numeric | 19 | A 19-digit unique identifier of the entity status record. |
| NAME | character | 128 | A name associated with the entity last updated as part of the data transformation job. |
| LAST_ENTITY_UPDATED | datetime | | The date and time when the entity identified by the LAST_ENTITY_ID value was updated. This value indicates when the data transformation job ended. |
| LAST_ENTITY_ID | numeric | 19 | A 19-digit unique identifier of the last entity updated when the data transformation job ran. |

ORG_HIERARCHY

The Organization Hierarchy table records the relationship between accounts and parent accounts..

Table 3-36 • Organization Hierarchy Columns

| Columns | Type | Length | Description |
|-----------------------|---------|--------|--|
| ORG_ID | numeric | 19 | A unique identifier of the organization as defined in FlexNet Operations.  Note • <i>ORG_ID</i> refers to the organization's account ID in FlexNet Operations. |
| PARENT_ORG_IDS | VARCHAR | 255 | A comma separated list of the parent account hierarchy. |

For example, if the account ID is 16016 and its parent is 16009, which has a parent account ID of 16008, it would be represented as follows:


Table 3-37 • ORG_HIERARCHY Table Example

| ORG_ID | PARENT_ORG_ID |
|--------------|---------------|
| 16016 | 16009,16008 |
| 16009 | 16008 |
| 16008 | null |

PARTNER_RELATED_ORGS

The Partner Related Organizations table is used to transform partner accounts and their relationships to customer accounts and partner accounts.

Table 3-38 • Partner Related Organizations Columns

| Columns | Type | Length | Description |
|------------------------|---------|--------|--|
| ORG_ID | numeric | 19 | A unique identifier of the account as defined in FlexNet Operations for the newly defined customer account.  Note • <i>ORG_ID</i> refers to the organization's account ID in FlexNet Operations. |
| RELATED_ORG_IDS | numeric | 19 | The account ID of the original partner account. |

PRODUCT_RELATION

The Product Relation table records the relation between different products including maintenance products. .

Table 3-39 • Product Relation Columns

| Columns | Type | Length | Description |
|---------------------------|----------|--------|--|
| PRODUCT_ID | numeric | 19 | It is a foreign key. The ID is the primary key for the Product dimension. |
| RELATION_TYPE | nvarchar | 255 | Defines what relation exists between two products. For example: <ul style="list-style-type: none">● UPGRADE_FROM● UPGRADE_TO● UPSELL_FROM● UPSELL_TO● DEMO_OF● PRODUCTION_VERSION_OF● IS_MAINTENANCE● HAS_MAINTENANCE |
| RELATED_PRODUCT_ID | numeric | 19 | This is a foreign key. The ID is the primary key for the related product in the Product Dimension table. |

RPT_MODULE

The Report Module table records the schema version of the reporting database.

Table 3-40 • Report Module Columns

| Columns | Type | Length | Description |
|-----------------------|-----------|--------|--|
| ID | numeric | 10 | A 10-digit identifier of the Report Module record. |
| HIB_VERSION | numeric | 10 | A 10-digit identifier for the schema version. |
| LASTUPDATED | datetime | | The date and time the schema was last updated. |
| NAME | character | 2000 | The name of the schema, typically “reporting.” |
| SEQUENCENUMBER | numeric | 10 | A 10-digit sequence number. |
| VERSION | character | 2000 | The version number of the schema. |

USER_ORG_RELATION

The User/Org Relation table records user and account mapping details.

Table 3-41 • User/Org Relation Columns

| Columns | Type | Length | Description |
|--------------------|----------|--------|---|
| USER_ID | numeric | 19 | A unique identifier of the user ID record defined in FlexNet Operations. |
| ORG_ID | numeric | 19 | A unique identifier of the account ID to which the particular user is mapped. |
| EXPIRY_DATE | datetime | | The date and time the user's access to an account expires. EXPIRY_DATE can be null. |

USER_ORG_ROLE

The User Organization Role table records a user's organization role.

Table 3-42 • User Organization Role Columns

| Columns | Type | Length | Description |
|--------------------|----------|--------|---|
| ID | numeric | 19 | A 10-digit identifier of the User Organization Role record. |
| TENANT_ID | navchar | 255 | The tenant ID of the user |
| LASTUPDATED | datetime | | The date and time the schema was last updated. |
| USER_ID | number | 19 | The user ID of a user. The USER_ID is a foreign key to the USER_DIMENSION table. |
| ORG_ID | numeric | 19 | The organization ID of a user. The ORG_ID is a foreign key to the ORG_UNIT_DIMENSION table. |
| ROLE_ID | numeric | 19 | The user role ID. |
| ROLE_NAME | navchar | 255 | The user role name. |

Sample SQL Scripts

FlexNet Operations provides several scripts to illustrate SQL queries that generate reports based on data in the FlexNet Operations reporting database.

- [Locating Sample SQL Scripts](#)
- [SQL Script Descriptions](#)

Locating Sample SQL Scripts

The sample SQL scripts included in your FlexNet Operations instance can be located within the FlexNet Operations root directory (referred to, here, as <install_dir>). These scripts are available for both SQL Server and Oracle database environments.



Task *To locate sample SQL scripts for SQL Server*

On the machine that hosts your FlexNet Operations instance, navigate to the following location:

```
<install_dir>\site\samples\reportingdbscripts\SqlServerScripts
```



Task *To locate sample SQL scripts for Oracle*

On the machine that hosts your FlexNet Operations instance, navigate to the following location:

```
<install_dir>\site\samples\reportingdbscripts\OracleScripts
```

SQL Script Descriptions

For both SQL Server and Oracle environments, FlexNet Operations provides the same collection of sample SQL scripts.

Table 3-43 • Sample SQL Scripts Included with FlexNet Operations Reporting

| Script Type | Script Description and Name |
|---|---|
| Subscription Billing Report | For a given date, this report shows a list of product line items that are expiring, along with additional details about those products. ADDONS_EXPIRING_ON_A_DATE_OR_TIMEPERIOD.sql |
| Consumed Count Trends | For a given customer, this report shows a list of products for which the consumed copies increased or decreased during a specified time period. ADDONS_WITH_CHANGED_CONSUMED_COPIES_FOR_CUSTOMER_OVER_A_TIMEPERIOD.sql |
| Device Activity Report | For a given date range, this report shows device activity (line items mapped or unmapped) as well as a number of related details like the event type, SKU, product name, event date, and so on. DEVICE_ACTIVITY_REPORT(AVID).sql |
| Maintenance Expiration Report for a Customer | For a given customer, this report shows all the customer's devices with maintenance items that are expiring. DEVICES_WITH_EXPIRING_MAINTENANCES.sql |

Table 3-43 • Sample SQL Scripts Included with FlexNet Operations Reporting

| Script Type | Script Description and Name |
|---|--|
| Unactivated Products on Devices | <p>For a given date and a given product, this report shows a list of devices for which the product was requested but the consumed count is 0.</p> <p>DEVICES_WITH_UNACTIVATED_ADDONS.sql</p> |
| Maintenance Expiration Report for Products | <p>For a given date, this report shows a list of maintenance items that are expiring and the products related to those expiring maintenance items.</p> <p>MAINTENANCE_PRODUCTS_EXPIRING_ON_GIVEN_DATE.sql</p> |
| Devices with Pre-Installed Licenses by Customer | <p>For a given customer, this report shows the list of devices with pre-installed licenses and includes the device name, device status, host type or host attribute, and the date the license was generated.</p> <p>MANUFACTURER_PREBUILT_LICENSE_DEVICES_FOR_CUSTOMER.sql</p> |
| Total Number of Devices by Machine Type | <p>This report shows the total number of devices and the VM name (as appropriate) for each machine type (virtual, physical, or unknown).</p> <p>TOTAL_NUMBER_OF_DEVICES_FOR_MACHINE_TYPE_OR_VM_NAME.sql</p> |
| Total Number of Devices by Status and by Host Type or Host Attribute | <p>For a given device status and a given host type or host attribute, this report shows the total number of devices.</p> <p>TOTAL_NUMBER_OF_DEVICES_FOR_A_HOSTTYPE_OR_HOSTATTRIBUTE.sql</p> |

