

FD - Opportunity Product

- [Link to User Guides:](#)
- [Opportunity Products: Field-Level Update and Validation Overview](#)
 - [1. GBU \(SLV2_GBU__c\)](#)
 - [2. Contribution Margin \(Contribution_Margin__c\)](#)
 - [3. Opportunity Name \(SLV_Product_Name__c\)](#)
 - [4. Product Forecast \(SLV_Product_Forecast__c\)](#)
 - [5. Opportunity Involved Products \(SLV_Involved_Product__c\)](#)
 - [6. Product End Use \(SLV2_OPP_Product_End_Uses__c\)](#)
 - [7. Application \(SLV2_OPP_Application1__c\)](#)
 - [8. Yearly Revenue \(SLV_Yearly_Revenue__c\)](#)
 - [9. Product History \(SLV6_Opportunity_Product_History__c\)](#)
 - [10. Negotiation History \(SLV_Negotiation_History__c\)](#)
 - [11. Dummy Product Flag \(SLV_Dummy_Product_Exists__c\)](#)
 - [12. Total Amount \(SLV_Product_Total_Amount__c\)](#)
- [Validation Rules for Opportunity Products](#)
 - [1. No Dummy Product for Qualified Opportunities](#)
 - [2. Manufacturing Plant Validation](#)
 - [3. Shipping Plant Validation](#)
 - [4. Contribution Margin Calculation Method Consistency](#)
- [Flows](#)
 - [Trigger](#)
 - [Logic and Flow Steps](#)
- [Enhancements](#)
 - [Probability Weighted Contribution Margin: CPROMOG-12 - Getting issue details... STATUS](#)

Link to User Guides:

[P3. Opportunity Management](#)

User Roles and Permissions

Opportunity Line Items (OLIs) inherit their visibility and access controls directly from their parent Opportunity records. To check opportunity Access please go to [following page](#) and check under User Roles and Permissions

Opportunity Products: Field-Level Update and Validation Overview

1. GBU (SLV2_GBU__c)

- **On Create:**
 - The `SLV_OpportunityProductManagement.syncGBU` method sets the GBU on `OpportunityLineItem` to match the Opportunity GBU field (`SLV6_OPP_GBU__c`).
- **On Update:**
 - The same `syncGBU` method is invoked in the `SLV_OpportunityProductManagement` class to sync the GBU when the Opportunity or Opportunity Product's GBU changes.

2. Contribution Margin (Contribution_Margin__c)

- **On Update:**
 - The `updateContributionMargin` method in `SLV_OpportunityProductManagement` adjusts `Contribution_Margin__c` based on the calculation method set in `SLV5_OPR_CM_Calculation_Method__c`:
 - If the method is **Percent**, the margin is set to `Contribution_Margin_Percent__c`.

Change Log	Date	Owner
Page Created	30 Oct 2024	MILIC-ext, Nikola
Enhancement: Probability Weighted Contribution Margin:	19 Nov 2024	MILIC-ext, Nikola

CPROMOG-12 - Getting issue details...

6. Product End Use (SLV2_OPP_Product_End_Uses__c)

- **On Create:**
 - In the `updateOpportunityInvolvedProduct` method, `SLV_End_Use__c` from the Opportunity Product is added to `SLV2_OPP_Product_End_Uses__c` on the Opportunity.
- **On Update:**
 - The same method updates `SLV2_OPP_Product_End_Uses__c` to reflect any changes in `SLV_End_Use__c` for related Opportunity Products.
- **On Delete:**
 - When an Opportunity Product is deleted, the `updateOpportunityInvolvedProduct` method removes its `SLV_End_Use__c` from `SLV2_OPP_Product_End_Uses__c`.

7. Application (SLV2_OPP_Application1__c)

- **On Create:**
 - `SLV_End_Use__r.SLV_Application__c` values are added to `SLV2_OPP_Application1__c` for new Opportunity Products in `updateOpportunityInvolvedProduct`.
- **On Update:**

- If the method is **Amount**, the margin is set to `Contribution_Margin_Amount_per_UoM__c`.

3. Opportunity Name (SLV_Product_Name__c)

- **On Create:**
 - The `updateOpportunityname` method in `SLV_OpportunityProductManagement` sets the Opportunity name based on the `SLV2_OLI_Application__c` field if it does not match the current value in `SLV_Product_Name__c`.
- **On Update:**
 - This same method (`updateOpportunityname`) updates the Opportunity name if there is a mismatch between `SLV2_OLI_Application__c` and `SLV_Product_Name__c`.
- **On Delete:**
 - After deleting an Opportunity Product, the Opportunity name is updated through `updateOpportunityname` to reflect the change.

4. Product Forecast (SLV_Product_Forecast__c)

- **On Create:**
 - When an Opportunity Product is created, `SLV_updateProductForecast` updates forecast records based on `SLV5_OPR_Unit_of_Measure__c` and `SLV5_OPR_CM_Calculation_Method__c`.
- **On Update:**
 - The same `SLV_updateProductForecast` method recalculates forecast records when `SLV5_OPR_Unit_of_Measure__c` or `SLV5_OPR_CM_Calculation_Method__c` changes.
- **On Delete:**
 - `SLV_deleteProductForecast` deletes forecast records when an Opportunity Product is removed.

5. Opportunity Involved Products (SLV_Involved_Product__c)

- **On Create:**
 - `updateOpportunityInvolvedProduct` in `SLV_OpportunityProductManagement` adds `Product2`. Name from the `OpportunityLineItem` to `SLV_Involved_Product__c` on the Opportunity.
- **On Update:**
 - This method (`updateOpportunityInvolvedProduct`) also triggers on updates, adjusting `SLV_Involved_Product__c` based on the list of related Opportunity Products.
- **On Delete:**
 - When an Opportunity Product is deleted, the `updateOpportunityInvolvedProduct` method removes the product from the Opportunity's `SLV_Involved_Product__c` field.

- Updates to `SLV_End_Use__r`. `SLV_Application__c` on Opportunity Products prompt recalculation of `SLV2_OPP_Application1__c`.

- **On Delete:**

- When an Opportunity Product is deleted, the method removes its application data from `SLV2_OPP_Application1__c`.

8. Yearly Revenue (SLV_Yearly_Revenue__c)

- **On Create and Update:**
 - `updateProductTotalAmount` in `SLV_OpportunityProductManagement` sets `SLV_Yearly_Revenue__c` based on `SLV_Yearly_Volume_at_Maturity__c` and `SLV5_OPR_Target_Unit_price_per_UoM__c`.
 - If these values are null, `SLV_Yearly_Revenue__c` is set to zero.

9. Product History (SLV6_Opportunity_Product_History__c)

- **On Create and Update:**
 - `addOpportunityProductHistory` creates records in `SLV6_Opportunity_Product_History__c` to log changes in fields listed in `SLV6_Opportunity_Product_fields_Tracking_FieldSet`.
- **On Delete:**
 - `deleteOpportunityProductHistory` deletes history records associated with deleted Opportunity Products.

10. Negotiation History (SLV_Negotiation_History__c)

- **On Delete:**
 - The `deleteNegotiationHistory` method deletes negotiation history records associated with deleted Opportunity Products.

11. Dummy Product Flag (SLV_Dummy_Product_Exists__c)

- **On Create and Update:**
 - `updateDummyProductFlag` in `SLV_OpportunityProductManagement` sets the `SLV_Dummy_Product_Exists__c` flag on the Opportunity if dummy products are linked to it.
- **On Delete:**
 - This flag is also reset if dummy products are removed from the Opportunity.

12. Total Amount (SLV_Product_Total_Amount__c)

- **On Create and Update:**
 - `updateProductTotalAmount` calculates and updates the `SLV_Product_Total_Amount__c` for Opportunity Products, using volume and target unit price fields.

Validation Rules for Opportunity Products

1. No Dummy Product for Qualified Opportunities

- **Error Message:** "Dummy Products cannot be added to Opportunities marked as Product Qualified."

3. Shipping Plant Validation

- **Error Message:** "Selected Shipping Plant is not allowed for this Opportunity."
- **Condition:** This rule enforces that only approved shipping plants are selected for an Opportunity. It is triggered when:
 - **User Permissions:** The user does **not have permission** to bypass validation rules (`$Permission.Bypass_Validation_Rules = FALSE`).

- **Condition:** This rule enforces that no dummy products are associated with qualified Opportunities. It triggers when:
 - **User Permissions:** The user does **not have permission** to bypass validation rules ($\$Permission.Bypass_Validation_Rules = FALSE$).
 - **Opportunity Type:** The Opportunity's **Type** field ($Opportunity.Type$) is set to **"Product Qualified."**
 - **Product Name:** The **Product Name** field on the Opportunity Line Item ($OpportunityLineItem.Product2.Name$) is set to **"Dummy Product."**

2. Manufacturing Plant Validation

- **Error Message:** "Selected Manufacturing Plant is not approved for this Opportunity."
- **Condition:** Ensures only approved manufacturing plants are used in Opportunity Line Items. It activates when:
 - **User Permissions:** The user does **not have permission** to bypass validation rules ($\$Permission.Bypass_Validation_Rules = FALSE$).
 - **Manufacturing Plant Selection:** The Opportunity Line Item's **Manufacturing Plant** field ($OpportunityLineItem.Manufacturing_Plant__c$) is set to an **unapproved plant** (not within the allowed list for the Opportunity type).

- **Shipping Plant Selection:** The Opportunity Line Item's **Shipping Plant** field ($OpportunityLineItem.Shipping_Plant__c$) does not match any **approved shipping locations** associated with the Opportunity.

4. Contribution Margin Calculation Method Consistency

- **Error Message:** "Contribution Margin must be set according to the selected Calculation Method."
- **Condition:** This rule ensures that the Contribution Margin aligns with the selected calculation method. It activates when:
 - **Calculation Method:** The Opportunity Line Item's **Contribution Margin Calculation Method** field ($OpportunityLineItem.SLV5_OPR_CM_Calculation_Method__c$) is updated.
 - **Contribution Margin:** The **Contribution Margin** ($OpportunityLineItem.Contribution_Margin__c$) is inconsistent with the selected **Calculation Method** (either "Percent" or "Amount").

Flows

Flow Name: Create Product Forecasts

Purpose:

This flow creates a forecast record for each Opportunity Line Item added to an opportunity, ensuring that forecasts are generated and updated based on specific business rules.

Trigger

- **Type:** Record-Triggered Flow
- **Event:** Triggered each time an Opportunity Product record is created.
- **Entry Conditions:** None – the flow runs for all Opportunity Products and executes immediately.

Logic and Flow Steps

1. Retrieve Existing Forecasts

- The flow first checks if any forecast records already exist for the Opportunity.
- It retrieves records from **Product Forecast** where:
 - $SLV_Product_c$ equals $\$Record > Product\ ID$
 - $SLV_Opportunity_c$ equals $\$Record > Opportunity\ ID$

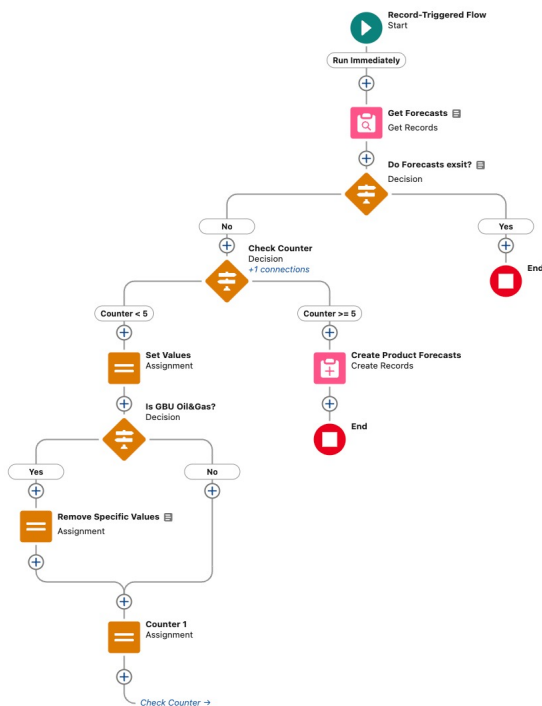
2. Check for Existing Forecasts

- **Decision:** If forecast records exist, the flow ends.
- **If No Forecasts Exist:** The flow proceeds to a counter-based decision to manage forecast creation.

3. Counter Logic and Forecast Creation

- **Counter Check (Counter < 5):**
 - If fewer than 5 forecasts exist, the flow:
 - Assigns values to all relevant fields in the forecast record.
 - Sets the **Year** field to:

```
TEXT(YEAR(DATEVALUE(DATETIMEVALUE({!
SLV7\_OPP\_Targeted\_first\_delivery\_date}))) + {!
counter})
```



- **Counter Check (Counter 5):**
 - When the counter reaches 5, it stops assigning values and creates the forecast records with the previously assigned field values.

2. Field Assignments (Set Values)

- The following fields are populated from the Opportunity Line Item to the Forecast record:
 - **Currency ISO Code**
 - **Opportunity**
 - **Unit of Measure**
 - **Opportunity Product ID**
 - **Product**
 - **CM Calculation Method**
 - **Volume**
 - **Price**
 - **Contribution Margin (Amount) per UoM**
 - **Contribution Margin**
 - **Year**



Exception for Oil & Gas GBU

- For **Oil & Gas GBU**, an exception is applied:
 - The forecast record for the **first delivery year** is created with all fields set to 0.

Enhancements

Probability Weighted Contribution Margin:

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STATUS

- A new field was added to Opportunity product called "**Probability Weighted Contribution Margin**".
- This field calculates potential margin based on opportunity probability:

Formula

$$SLV7_OPR_Contribution_Margin_Tot_Amount_c * Opportunity.Probability$$

- Field is not visible on OLI layout but can be added on report by any user who can see the OLI

Opportunity Name	Stage	Probability (%)	Product Name	Quantity	Target Unit Price	Probability Weighted Contribution Margin	Probability Weighted Contribution Margin (Amount)
Oil & Gas	Lead	10%	Oil & Gas	1	100.00	10.00	100.00