

Power Connector for Dynamics 365 (Using Power Automate)

User Guide

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Table of Contents

DEVELOPMENT DETAILS.....	3
TYPE	3
REQUIREMENT.....	3
SOLUTION.....	3
1. SETUP WIZARD	4
2. CRM INTEGRATION SETUPS.....	4
3. GENERAL ARCHITECTURE & FLOW	7
3.1 STAGING TABLE	7
3.2 BC DATA.....	9
3.3 CRM DATA	10
3.4 SYNCHRONIZE BC DATA	11
3.5 MAP CRM DATA.....	11
4 CUSTOMER.....	12
5 CONTACTS	14
6 PAYMENT TERM	16
7 SHIPMENT METHOD.....	16
8 SHIPPING AGENT	17
9 TAX AREA.....	17
10 SHIP TO ADDRESS	18
11 LOCATION	18
12 ITEMS	18
13 UNIT OF MEASURE	19
14 SALESPERSON	20
15 CONFIGURATION TEMPLATE.....	20
16 COUNTRY / REGION	21
17 CURRENCY	22
18 SALES QUOTE	22
19 SALES ORDER	24
20 POSTED SALES INVOICE	26
21 CUSTOMER LEDGER ENTRY	27
22 INVENTORY	28

DEVELOPMENT DETAILS

Task ID	E115_C		
Task Type	Y	Functionality	Report
Solution Type		Standard Functionality	Y New Functionality

TYPE:

- Connector between Business Central and Dynamics 365 for Sales using Power Automate

REQUIREMENT:

- A new connector using power automate which will serve as tool for seamless integration between entities of Dynamics 365 for Sales (CRM) and Business Central.

SOLUTION:

- This connector will work for the following entities

Integ. #	BC Entity	CRM Entity	Direction	Remarks
1	Customer	Account	CRM to BC	
2	Contact	Contact	Bidirectional	
3	Sales Quotes	Quotes	CRM to BC	with Revision
4	Sales Orders	Order	CRM to BC	with Revision
5	Sales Invoice	Invoice	BC to CRM	
6	Payment Term	Payment Term (Custom Entity)	BC to CRM	Submaster
7	Shipment Method	Shipment Method (Custom Entity)	BC to CRM	Submaster
8	Shipping Agent	Shipping Agent (Custom Entity)	BC to CRM	Submaster
9	Items	Products	BC to CRM	Submaster
10	Unit of Measure	Unit of Measure	BC to CRM	Submaster
11	Salesperson	Owner	Manual	Submaster
12	Template	BC Template (Custom Entity)	BC to CRM	only Code
13	Country/ Region	Country/ Region (Custom Entity)	BC to CRM	
14	Currency	Currency	BC to CRM	Submaster
15	Customer Ledger Entry	Customer Ledger Entry (Custom Entity)	BC to CRM	Only Open Entries, will be synced once in a day
16	Tax Area	Tax Area	BC to CRM	
17	Location	Location	BC to CRM	
18	Shipping Address	Shipping Address	CRM to BC	
19	Inventory	Inventory	BC to CRM	

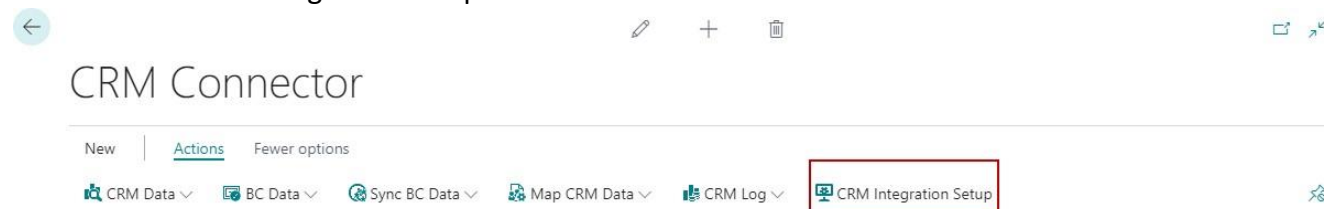
- Instead of directly moving the records, we will first populate it in staging table from where they will be processed periodically.

1. SETUP WIZARD

- An installation wizard can be found by searching for the CRM connector. This will help to establish basic setup and read the general terms & condition of product use.

2. CRM INTEGRATION SETUPS

- Click on CRM Connector
- Locate the CRM Integration setup under tab named Action from ribbon.



- This setup includes few technical aspects which establishes the secure connection between CRM and Business Central. The technical requirement will be fulfilled by implementation team.
- The fields from setup are explained in below table:

Sr. No.	Field Name	Purpose
1	Enable CRM Integration	This Boolean enables the integration. Even if the connector is installed but this Boolean is False then there will be no synchronization between two system.
2	CRM Sales Order No. Series	This is a Look up field which shows the master of no. series. If selected, then system will use the no. from the selected series to create new sales order in BC from CRM. This can be helpful in cases if the user wants to keep a bifurcation of sales order created from CRM and created directly in BC.
3	CRM Sales Quote No.	This is a Look up field which shows the master of no. series. If selected, then system will use the no. from the selected series to create new sales quote in BC from CRM. This can be helpful in cases if the user wants to keep a bifurcation of sales quote created from CRM and created directly in BC.
4	Do Not Allow to Modify the Sales Order	If the Boolean is enabled then system will not allow to amend any field value for orders created from CRM. System will lock the values in those fields in sales header & sales line which are included in integration. User will still be able to select the values in any other field which is not included in integration. E.g. User will not be able to change the order date but can update the dimensions. In sales order line, user will not be able to add any new line or delete any line flowing from CRM. But, provision is kept allowing them to add any new line with type "Comment".
5	Do Not Allow to Modify the Sales Quote	If the Boolean is enabled then system will not allow to amend any field value for quotes created from CRM. System will lock the values in those fields in sales header & sales line which are included in integration. User will still be able to select the values in any other field which is not included in integration. E.g. User will not be able to change the document date but can update the dimensions.

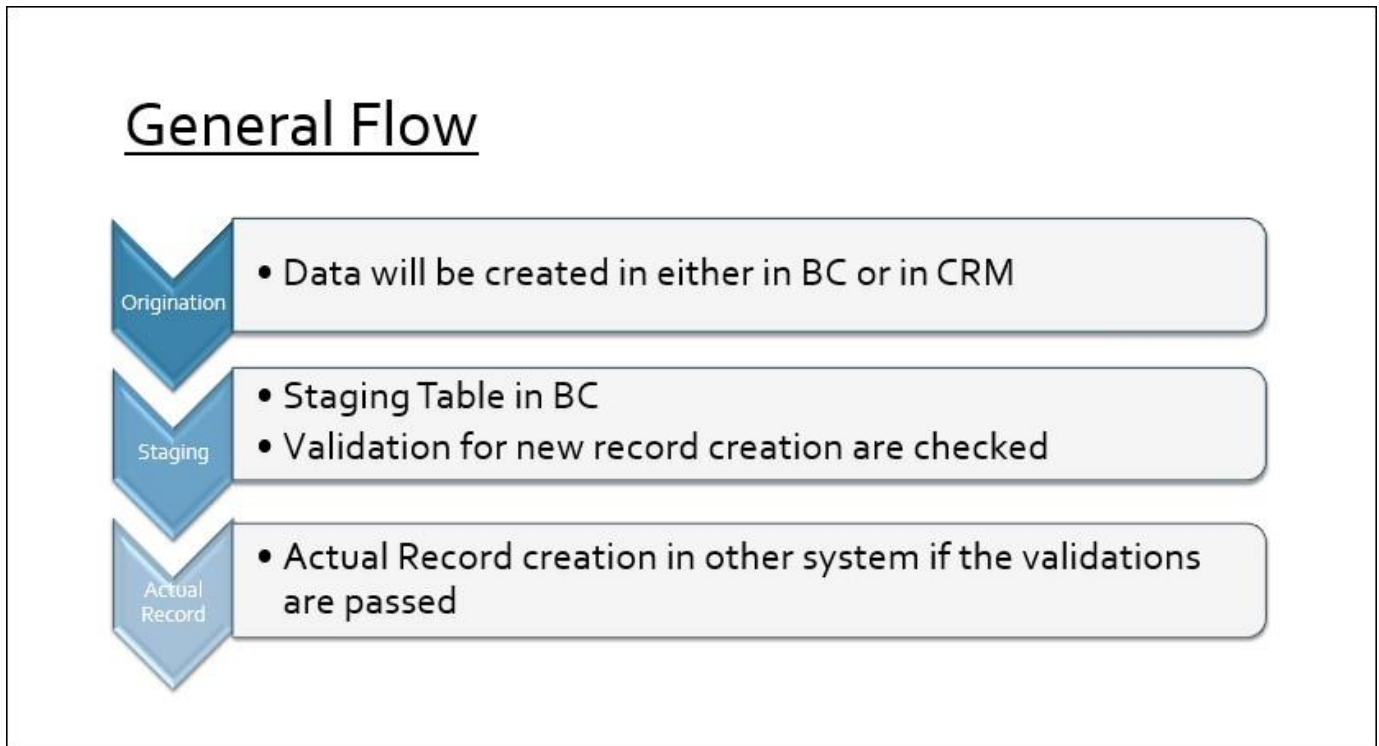
		In sales quote line, user will not be able to add any new line or delete any line flowing from CRM. But, provision is kept allowing them to add any new line with type "Comment".
6	Keep Sales Order No. same as CRM	If the Boolean is enabled, then Sales Order No. of CRM will become the Sales Order No. in BC. If it is disabled, then system will use the standard setup.
7	Keep Sales Quote No. same as CRM	If the Boolean is enabled, then Sales Quote No. of CRM will become the Sales Quote No. in BC. If it is disabled, then system will use the standard setup.
8	Integration User	Username to be defined here which will be having Admin/ Super access in CRM and Business Central. Basically, this user will be used to integrate two systems.
9	Web Service Key	Web service key will be defined of Integration User from the User Card of Business Central.
10	Global CRM URL	URL of CRM will be defined here to identify CRM environment for the integration.
11	Default Unit Group	This specifies the default unit group GUID to use while creating a new product record in CRM from BC. User need to create a record one time in CRM.
12	Default Unit	This specifies the default unit GUID to use while creating a new Unit under Unit Group in CRM from BC.
13	Default Price List	This specifies the default price list to use while creating a new product record in CRM from BC. User need to create a record one time in CRM. During Product creation in CRM, system will also create a record using Default Price List in Price List Items entity with ZERO Amount.
14	Auto Synchronize Customer in BC	If this Boolean is enabled, then all the customer records from CRM staging will be converted automatically (if all the validations are passed) to customers in BC. If this is false, then user will have to manually click on create customer from staging table to create a new customer record in BC.
15	Auto Synchronize Contact Person in BC	If this Boolean is enabled, then all the contacts (with type Person) from CRM staging will be converted automatically (if all the validations are passed) to new contacts with type person in BC. If this is false, then user will have to manually click on create contact from staging table to create a new record in BC.
16	Auto Synchronize Posted Invoice CRM	If this Boolean is enabled, then all the posted sales invoices (with type Person) from BC Staging will be flown periodically (if all the validations are passed) to new sales invoices in CRM. If this is false, then user will have to manually run the batch job from staging table to create a new record in CRM.
17	Auto Synchronize BC Contact Person in CRM	The integration of contacts with type Person is a bidirectional integration. If this Boolean is enabled, then new contact with type person created in BC will flow to CRM automatically (if all the validations are passed). If this is false, then user will have to manually run the batch job.
18	Auto Synchronize Items to CRM	If this Boolean is enabled, then all the items created in BC will be flown to product master of CRM automatically. If this is false, then user will have to manually run the batch job to flow the items to CRM.
19	Auto Synchronize BC UOM to CRM	If this Boolean is enabled, then all the UOM created in BC will be flown to CRM automatically. If this is false, then user will have to manually run the batch job to flow the records to CRM.
20	Auto Synchronize BC Country/Region to CRM	If this Boolean is enabled, then all the country/region created in BC will be flown to CRM automatically. If this is false, then user will have to manually run the batch job to flow the records to CRM.

- There are various functions given in ribbon which are explained in below table:

Sr. No.	Function Name	Purpose
1	Create web Services	This function will be called once during the implementation to generate new web services to establish the link between entities of CRM and BC.
2	Create Job Queue Entries	<p>This function will be called once during the implementation to generate new job queue which will periodically trigger the various flow. There are five job queues generated by this function:</p> <ol style="list-style-type: none"> 1. BC to CRM Data Sync – This job queue will automatically push the master data generated in BC to CRM 2. BC to CRM CLE Data Sync – This will push the customer ledger entries generated in BC to CRM 3. CRM to BC Sales Quote create– This will create a new sales quote in BC from sales quote of CRM 4. CRM to BC Sales Order Create – This will create a new sales order in BC from sales order of CRM 5. BC to CRM Inventory Data Sync – This will push the location wise on hand inventory to CRM. <p>Once these job queues are create using the function, user must define their recurrence. Ideally the suggested recurrence time for each job queue is as below:</p> <ol style="list-style-type: none"> 1. BC to CRM Data sync – Every 2 min. 2. BC to CRM CLE Data Sync – once every night 3. CRM to BC Sales Quote Create – Every 5 min. or every 10 min. 4. CRM to BC Sales Order Create - Every 5 min. or every 10 min. 5. BC to CRM Inventory Data Sync – Once every night
3	CRM Integration Flow Link	This function will be called generate Links for flow for CRM environment.
4	Get Default UOM GUIDs	This function will be called to fill Default UOM GUID for the record which is created in CRM by user.
5	Get Default List price GUIDs	This function will be called to fill Default Price List GUID for the record which is created in CRM by user.

3. GENERAL ARCHITECTURE & FLOW

- The solution has been developed in such a way that it follows the same flow & architecture to synchronize the data between two systems.
- The general flow is:



3.1 Staging Table

- There are two main staging table which record data creation or modification in entities included in integration. One table is for data from BC to CRM and other one from CRM to BC. They are named as:
 1. BC to CRM Log – Logs all the data sync from BC to CRM
 2. CRM to BC Log – Logs all the data sync from CRM to BC

CRM Connector




- The Boolean named “Updated in CRM” is provided in BC to CRM log which is set to TRUE as soon as record is created/updated in CRM. The power automate only updates/creates those record from this staging where Boolean is False. So, in way that Boolean also serves as a trigger for the automate.






Entry No. ↑	Source Type	Source No.	Updated In CRM	Updated Date Time
→ 1	Payment Term	10 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
2	Payment Term	14 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
3	Payment Term	15 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
4	Payment Term	1M(8D)	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
5	Payment Term	2 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
6	Payment Term	21 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
7	Payment Term	30 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
8	Payment Term	60 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
9	Payment Term	7 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM



- Similarly, the Boolean named “Updated in BC” is provided in CRM to BC log which is set to TRUE as soon as record is created/updated in BC. The power automate only updates/creates those record from this staging where Boolean is False. So, in way that Boolean also serves as a trigger for the automate.

Entry No. ↑	Source Entry No.	Source CRM ID	Updated in BC	Updated Date Time
→ 1	66	{fe884589-916a-ea11-a811-000d3a3be299}	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
2	54	{85047789-916a-ea11-a811-000d3a3be36e}	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
3	14	{86047789-916a-ea11-a811-000d3a3be36e}	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
4	1	{8b047789-916a-ea11-a811-000d3a3be36e}	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
5	32	{87047789-916a-ea11-a811-000d3a3be36e}	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
6	41	{8c047789-916a-ea11-a811-000d3a3be36e}	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
7	55	{e9374b90-916a-ea11-a811-000d3a3be299}	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
8	67	{ea374b90-916a-ea11-a811-000d3a3be299}	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
9	15	{0c1a918f-916a-ea11-a811-000d3a3be36e}	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
10	2	{eb374b90-916a-ea11-a811-000d3a3be299}	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM

- A function named Run BC to CRM Data sync is provided on BC to CRM log. This is the batch job which triggers the power automate. This function is periodically called based on job queue “BC to CRM Data Sync”. But, if the user wants to manually sync the data, then they can use this function.

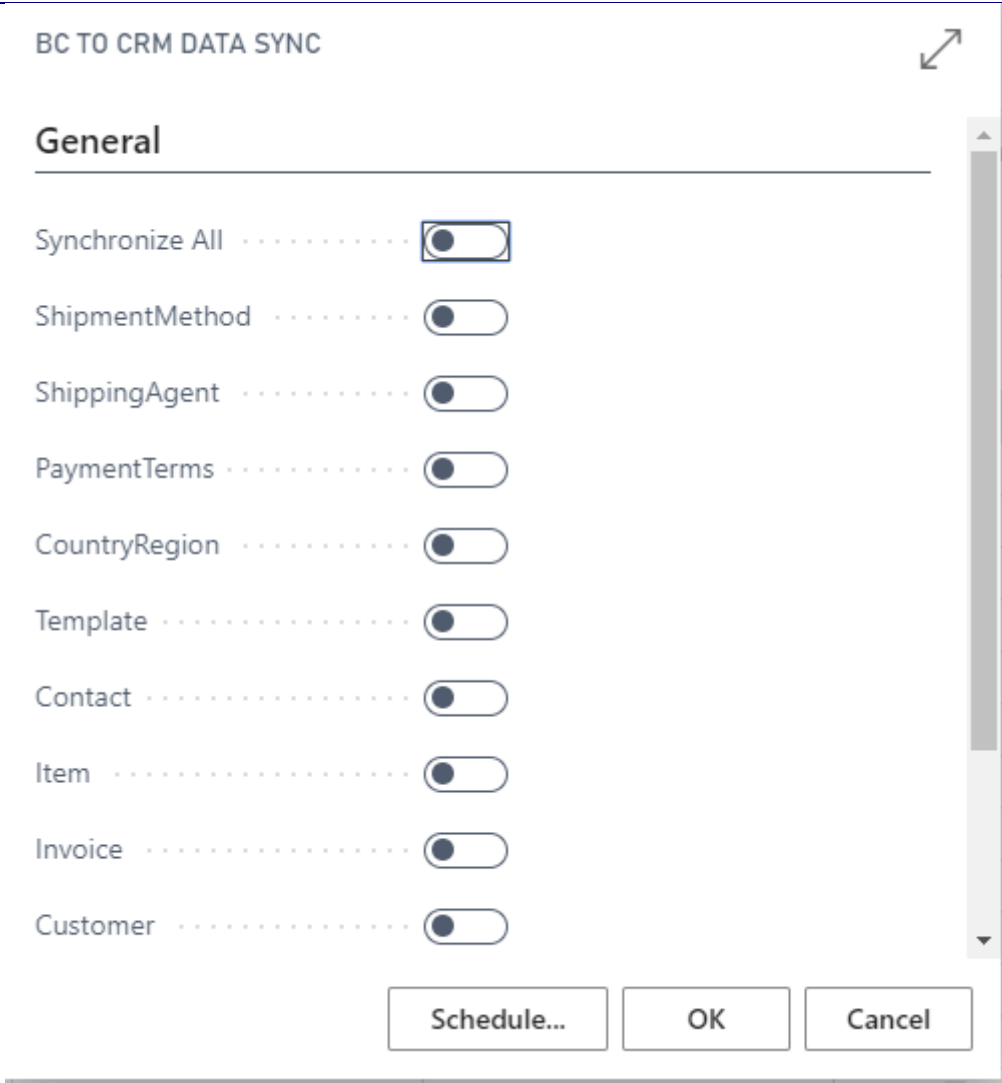
← BC TO CRM LOG | WORK DATE: 3/30/2020 ✓ SAVED 

 Search
[Manage](#)
 Clear Initial Staging Entry
 View BC Data
 **Run BC to CRM Data Sync**
Page
Actions
Fewer options 

 Delete 

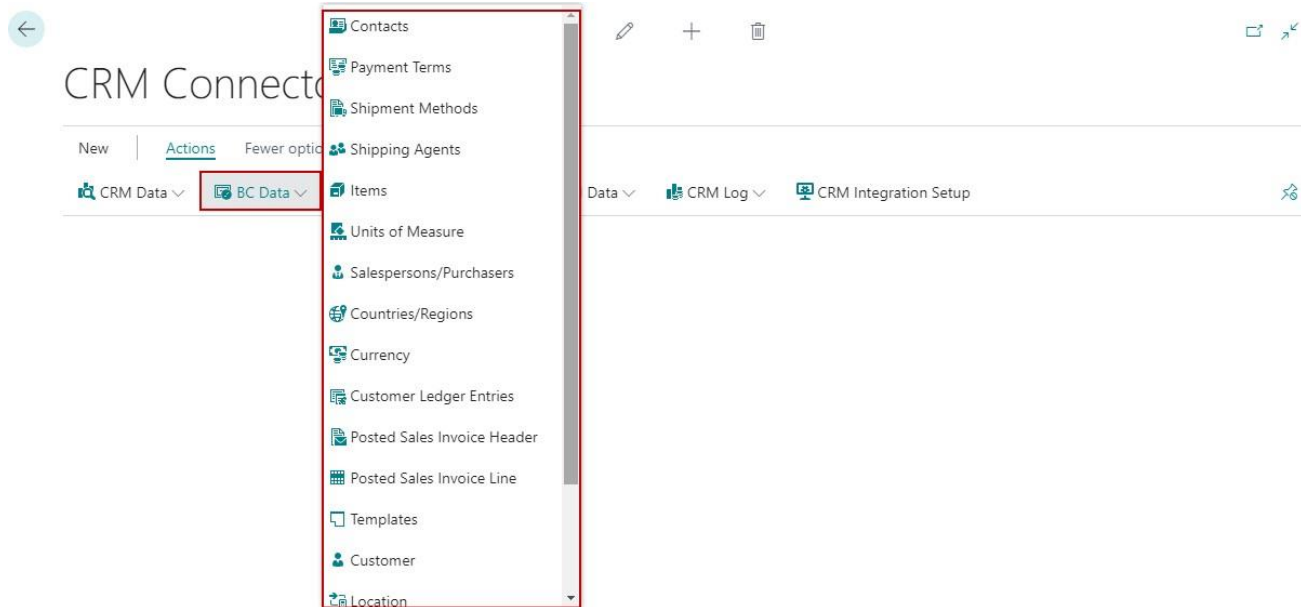
Entry No. ↑	Source Type	Source No.	Updated In CRM	Updated Date Time
→ 1	Payment Term	10 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
2	Payment Term	14 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
3	Payment Term	15 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
4	Payment Term	1M(8D)	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
5	Payment Term	2 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
6	Payment Term	21 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
7	Payment Term	30 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
8	Payment Term	60 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
9	Payment Term	7 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
10	Payment Term	75 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM
11	Payment Term	80 DAYS	<input checked="" type="checkbox"/>	3/20/2020 3:00 AM

- This batch job also has the provision to apply various filters on source type. E.g. if user only wants to run the batch job for payment term then the Boolean of only payment term must be set to True. If they want to run the batch job for all the source type then they must set the Boolean of Synchronize All to True.



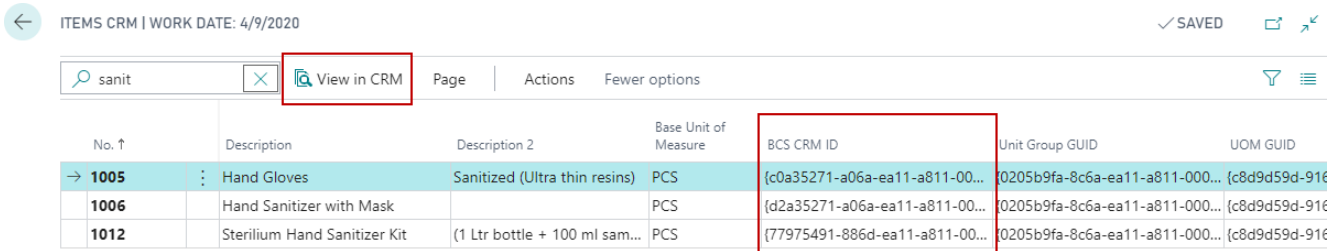
3.2 BC Data

- To create web services of the masters and transaction page, we have created new pages with limited fields. These pages can be seen under BC Data.



- These pages will also serve the purpose of secondary staging table from where user can navigate to related record of CRM. For example, if we refer the page of Items under BC data, it will show us all the

items which are synchronized with CRM with their GUID and the function from ribbon will help to navigate to record of CRM.

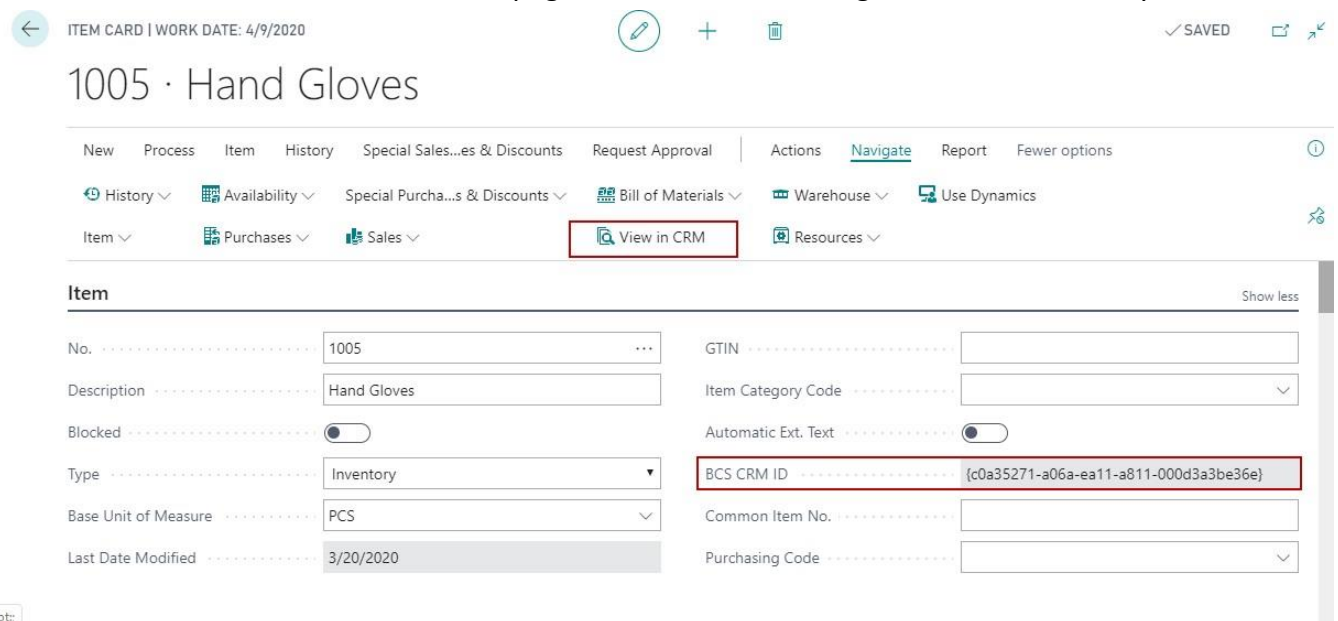


← ITEMS CRM | WORK DATE: 4/9/2020 ✓ SAVED

sanit View in CRM Page Actions Fewer options

No. ↑	Description	Description 2	Base Unit of Measure	BCS CRM ID	Unit Group GUID	UOM GUID
→ 1005	Hand Gloves	Sanitized (Ultra thin resins)	PCS	{c0a35271-a06a-ea11-a811-00...	0205b9fa-8c6a-ea11-a811-000...	{c8d9d59d-91f...
1006	Hand Sanitizer with Mask		PCS	{d2a35271-a06a-ea11-a811-00...	0205b9fa-8c6a-ea11-a811-000...	{c8d9d59d-91f...
1012	Sterilium Hand Sanitizer Kit	(1 Ltr bottle + 100 ml sam...	PCS	{77975491-886d-ea11-a811-00...	0205b9fa-8c6a-ea11-a811-000...	{c8d9d59d-91f...

- The view in CRM functionality & BCS CRM ID of related record of CRM is available on each page shown under BC Data and also on all actual pages of BC which are integrated between two systems.



← ITEM CARD | WORK DATE: 4/9/2020 ✓ SAVED

1005 · Hand Gloves

New Process Item History Special Sales...es & Discounts Request Approval Actions Navigate Report Fewer options

History Availability Special Purcha...s & Discounts Bill of Materials Warehouse Use Dynamics

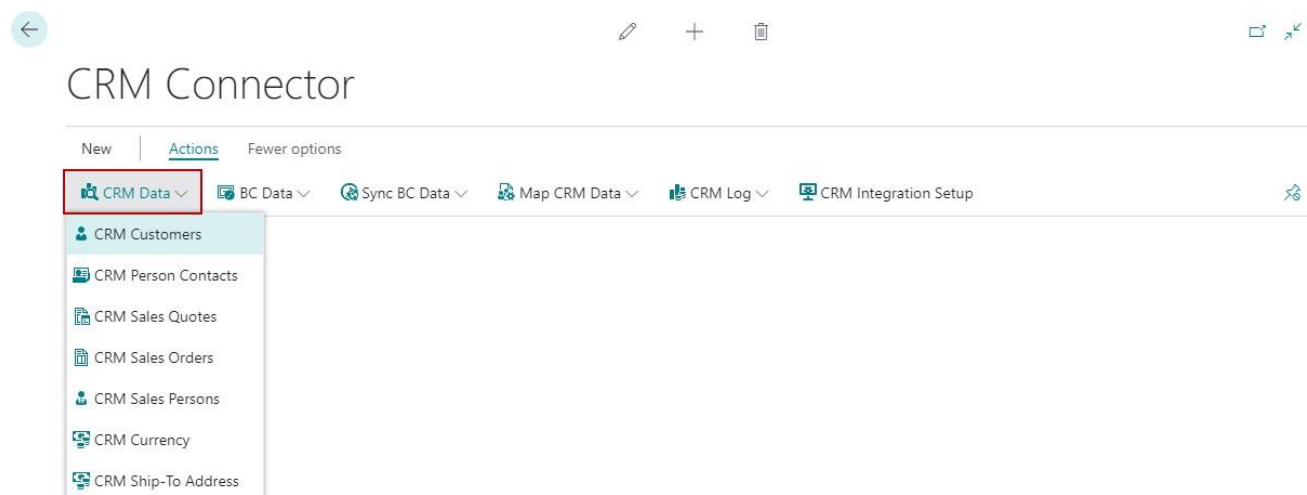
Item Purchases Sales View in CRM Resources

Item Show less

No.	1005	GTIN	
Description	Hand Gloves	Item Category Code	
Blocked	<input type="checkbox"/>	Automatic Ext. Text	<input type="checkbox"/>
Type	Inventory	BCS CRM ID	{c0a35271-a06a-ea11-a811-000d3a3be36e}
Base Unit of Measure	PCS	Common Item No.	
Last Date Modified	3/20/2020	Purchasing Code	

3.3 CRM Data

- CRM data shows all the records of all the entities flowing from CRM to BC.



← CRM Connector ✓ SAVED

New Actions Fewer options

CRM Data BC Data Sync BC Data Map CRM Data CRM Log CRM Integration Setup

- CRM Customers
- CRM Person Contacts
- CRM Sales Quotes
- CRM Sales Orders
- CRM Sales Persons
- CRM Currency
- CRM Ship-To Address

- All these pages have few common characteristics such as provision is kept creating a record manually in BC from here in case the job queue is not run yet. As soon as BC record is created, the column of BC No. will show the related record no. from BC. For example, on the page of CRM Customer, one can find the above-mentioned function and field:

← A-CUSTOMER STAGING | WORK DATE: 4/9/2020 ✓ SAVED

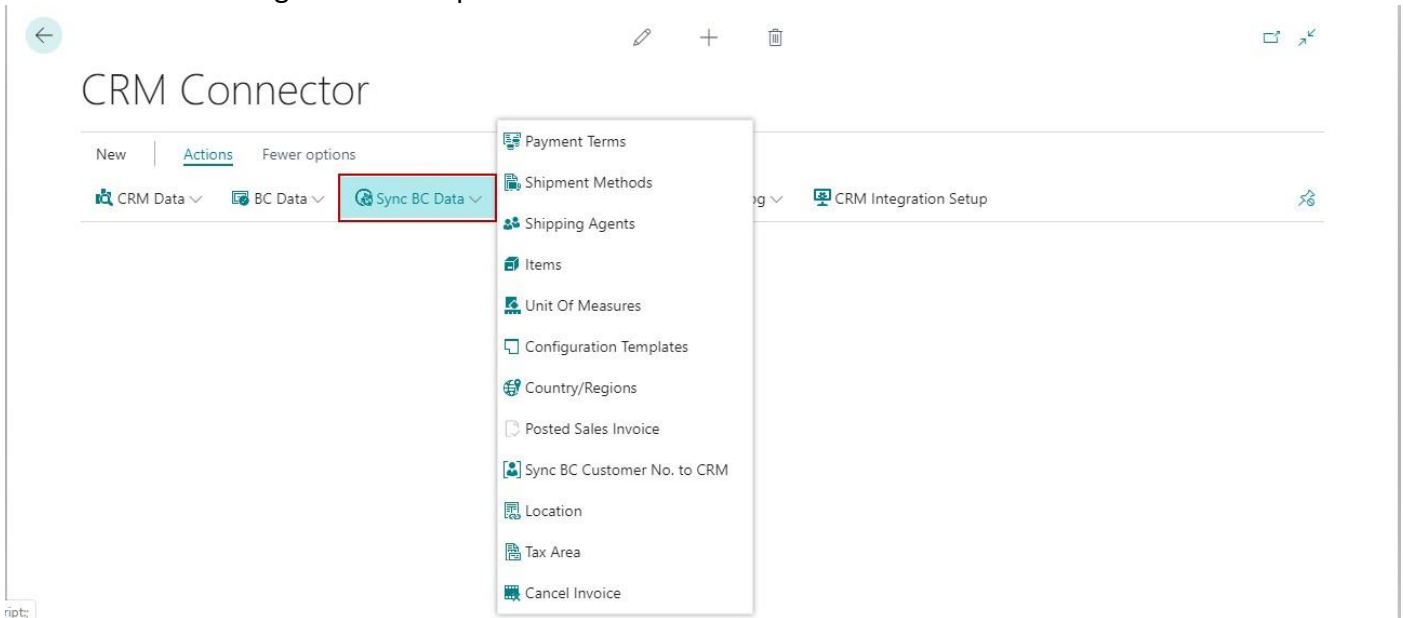
Search Initial Staging Entry Create Customer View in CRM View BC Customer Page More options

CRM ID	BC Customer No.	Name	Name 2	Salesperson Code	Country/R... Code	Template Code	VAT Number	Currency Code
→ {beb04be9-d66c-ea11-a811-...	C00450	Ramdev Masala		BCS3	US	DOMESTIC		
{fc257d0c-e26c-ea11-a811-0...	C00460	Deep CHem		BCS3	IN	DOMESTIC		
{6d48ed34-ea6c-ea11-a811-...	C00470	Enprocon		BCS3			444k3rg3iur...	
{120d00ea-f56c-ea11-a811-0...	C00480	Schiller Healthcare		BCS3	US	DOMESTIC	27GFTHi87...	
{d52e2baf-8c6d-ea11-a811-0...	C00490	Perfect Equipment		BCS3	IN	DOMESTIC	24erfgh7c1x3	THB
{04bc77e9-b66d-ea11-a811-...	C00500	Pluga Motors		BCS3	IN	DOMESTIC	24TYTRT45...	THB
{137526d2-3f72-ea11-a811-...	C00510	Harlem Furniture		BCS3	US	DOMESTIC	24CFRTU56...	
{54fa96f8-3e7a-ea11-a812-0...	C00520	Test Account		BCS3			BSJFP6787T	

- For more information on synchronization between Salesperson and Currency, refer the section 3.5 Map CRM Data.

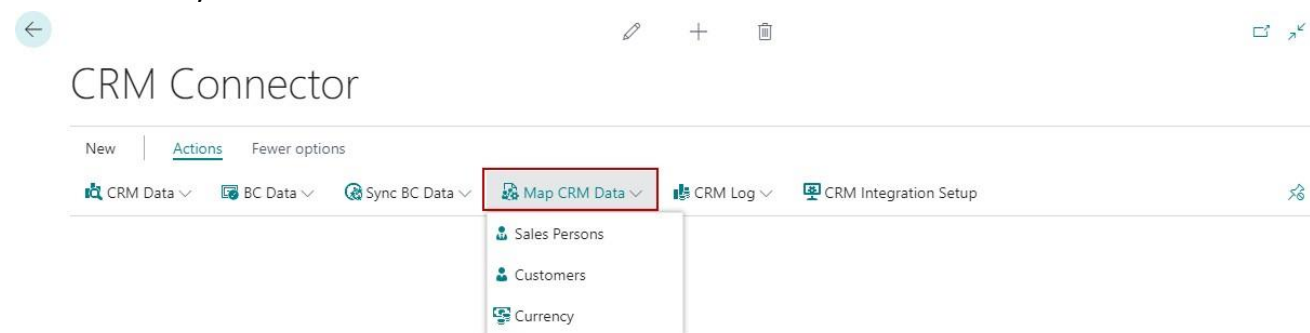
3.4 Synchronize BC Data

- Synchronize BC Data contains the batch jobs which push the records which are modified/created in BC to the BC to CRM Log table with Updated in CRM Boolean False.



3.5 Map CRM Data

- Map CRM data shows the three batch jobs:
 1. Salespersons
 2. Customers
 3. Currency



- These batch job map does as following:

Salespersons

- Salesperson needs to be managed individually in both the system. After that as soon as this batch job is run, the Salespersons will be linked based on their Email address.

Currency

- Currencies need to be managed individually in both the system. After that as soon as this batch job is run, the currencies will be linked based on their Code.

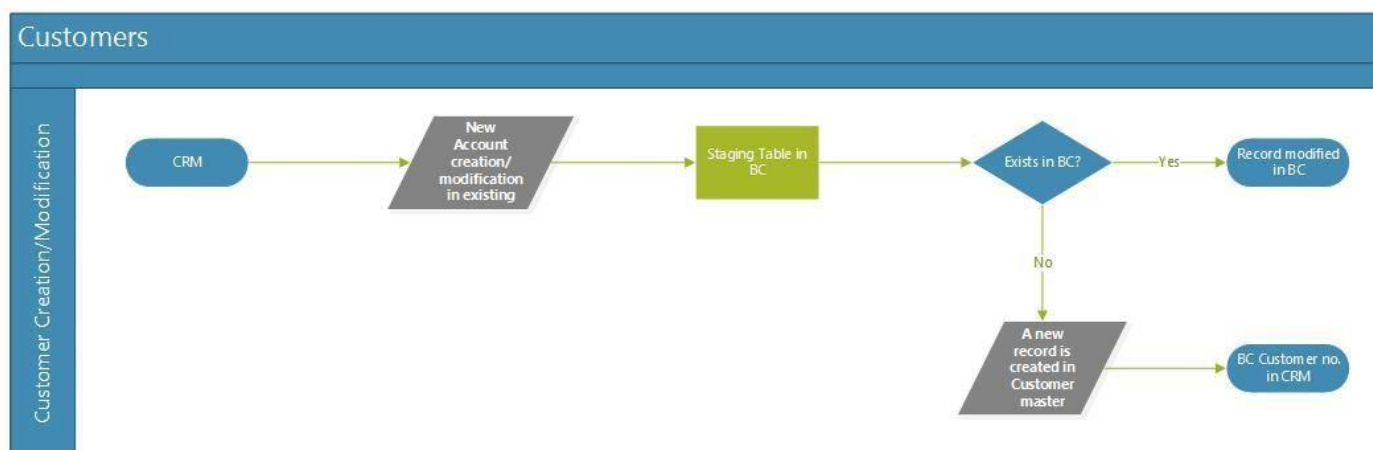
Customers

- During the implementation, there may be cases where both the systems might have records of customers. By running this batch job, system will match those customers based on their name and link them.

Now, let's see how the synchronization between different entities work.

4 CUSTOMER

- Customers will be created in CRM and will flow to business central.
- Accounts from CRM will be first parked in a staging table called CRM Customer under CRM Data.
- The template code selected in CRM will be used to flow some default values in fields like Gen. business posting group, Customer Posting Group etc.
- The general flow is as shown in below diagram



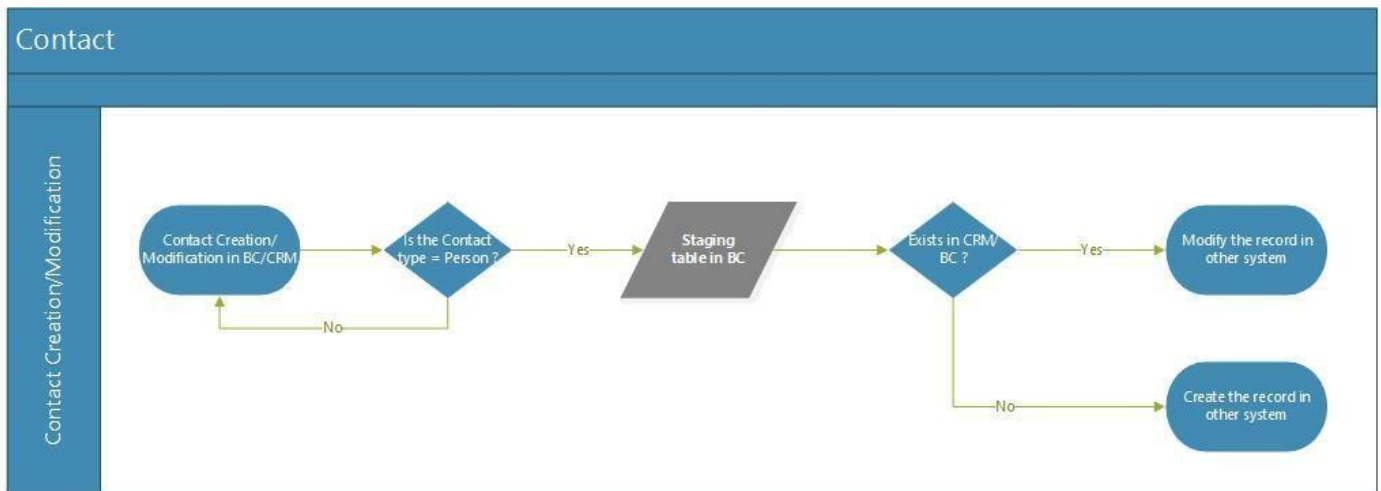
- Following field are included in integration & their mapping is also mentioned

CRM Field	CRM Customers (Staging)	Customer (18) (Business Central)	Remarks
Account ID	CRM ID	BCS CRM ID	As the account ID is nothing but the GUID in CRM, the values of this field will be like {137526d2-3f72-ea11-a811-000d3a3be299}
BC Customer No.	BC Customer No.	No.	As soon as the customer is created in BC, the no. generated in BC will be populated in staging and will also be flown back to CRM.
Account Name	Name, Name 2	Name, Name 2	In CRM, a validation is put which will not allow the users to add more than 200 characters in Name. The first 100 characters of these 200 will be flown in Name and remaining will be flown in Name 2 field in BC.
Fax	Fax	Fax	
Phone	Phone	Phone	
Email	Email	Email	
Website	Website	Home Page	
Tax Registration No.	VAT Number	Tax Registration No.	A new field named Tax Registration No is developed in CRM.
Address 1: Street 1	Address	Address	Validation has been put in CRM to not have more than 100 characters in Address 1: Street 1. Texts from Address 1: Street 1 field is flown in Address in BC.
Address 1: Street 2	Address 1: Street 2	Address 2	Validation has been put in CRM to not have more than 100 characters in Address 1: Street 2. Texts from Address 1: Street 2 field is flown in Address 2 in BC.
Address 1: Street 3	Address 1: Street 3	Address, Address 2	Address 1: Street 3 will not flow to BC.
Address 1: City	City	City	
Address 1: Zip/ Postal Code	Zip Code	Zip Code	
Address 1: state	State	State	
Country/ Region	Country/Region	Country/ Region Code	A new field named Country/ Region is developed in CRM, which will be lookup of Country/ Region master.
Template code	Template Code	Template Code	<ol style="list-style-type: none"> 1. A new field showing look up of configuration templates is developed in CRM on Accounts. 2. The template code will be created in BC and are flown to CRM. Based on the selection in CRM, BC will apply that template code against that record, and will flow the default values defined in that template code.

Shipment Method Code	Shipment Method Code	Shipment Method Code	A new field showing look up of Shipment Methods is developed in CRM on Accounts. The shipment method code will be created in BC and are flown to CRM.
Shipping Agent Code	Shipping Agent Code	Shipping Agent Code	A new field showing look up of Shipping Agents is developed in CRM on Accounts. The shipping agent will be created in BC and are flown to CRM.
Payment Term Code	Payment Terms Code	Payment Term Code	A new field showing look up of Payment Term is developed in CRM on Accounts. The Payment Term will be created in BC and are flown to CRM.
Tax Area Code	Tax Area Code	Tax Area Code	A new field showing look up of Tax Area is developed in CRM on Accounts. The Tax Area will be created in BC and are flown to CRM.
Tax Liabile	Tax Liabile	Tax Liabile	

5 CONTACTS:

- Contacts have a bidirectional flow i.e. it may flow from CRM to BC or from BC to CRM.
- Business Central has in-built function of creating contact of Type Company for every new record in customer.
- So, the automate is established to integrate only those contacts which has Type of Person.
- This is also processed through a staging table in BC. The staging table for all the contacts created in CRM is CRM Person Contacts under CRM Data. And the staging table for all the contacts created/modified in BC and synced with CRM is BC to CRM log.
- The general flow will be as shown in below diagram

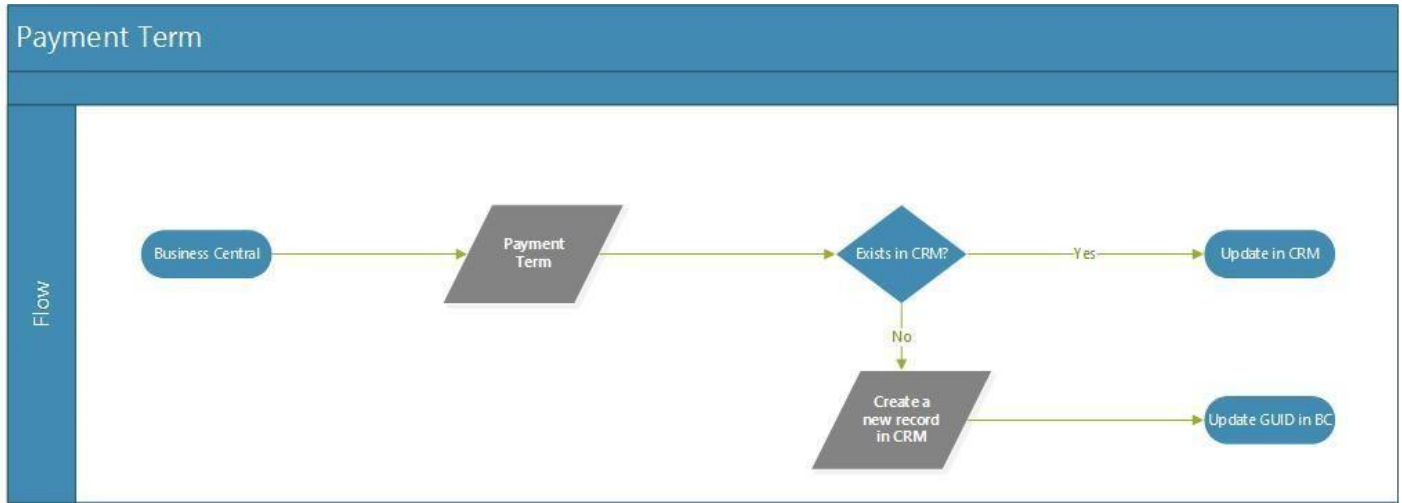


- The mapping of the field is as below:

CRM Field	Contact Staging Table	Contact (5050) (Business Central)	Remarks
Contact_ID	CRM ID	BCS CRM ID	A new field developed in BC to store CRM ID (GUID)
Account_ID	Company ID	Company No	Company ID is the parent Company Contact under which a contact is created in CRM.
Company Name	Company Name	Name	
Salutation	Salutation	Salutation	
First Name	First Name	First Name	
Middle Name	Middle Name	Middle Name	
Last Name	Last Name	Surname	
Job Title	Job Title	Job Title	
Business Phone	Business Phone	Phone No.	
Home Phone	Home Phone	Home Phone	
Mobile Phone	Mobile Phone	Mobile Phone No.	
Fax	Fax	Fax No.	
Email	Email	Email	
Address 1: Street 1	Street	Address, Address 2	Validation is put in CRM to not have more than 100 characters in Street. Texts from Street field will be flown in Address in BC
Address 1: Street 2	Street 2	Address, Address 2	Validation is put in CRM to not have more than 100 characters in Street 2. Texts from Street 2 field will be flown in Address 2 in BC
Address 1: Street 3	Street 3	Address, Address 2	Street 3 will not flow in BC
Address 1: City	City	City	
Address 1: state	State	State	
Address 1: Zip/ Postal Code	Zip/ Postal Code	Zip Code	
Country/ Region	Country/ Region	Country/ Region Code	A new field named Country/ Region is developed in CRM, which will be lookup of Country/ Region master.

6 PAYMENT TERM

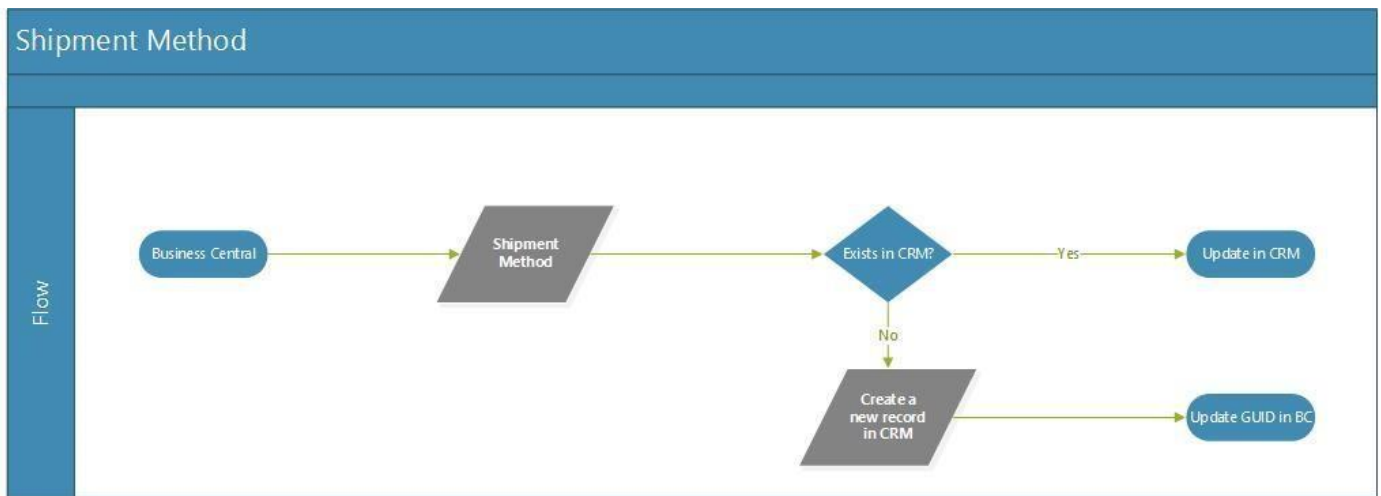
- A new master entity is created in CRM to capture the data flown from BC.
- Payment term created in BC are flown to CRM and their GUID is captured back in BC.
- The general flow is as shown below:



Payment Term (3) (Business Central)	CRM Field	Remarks
Code		
Description	Description	
BCS CRM ID	GUID	

7 SHIPMENT METHOD

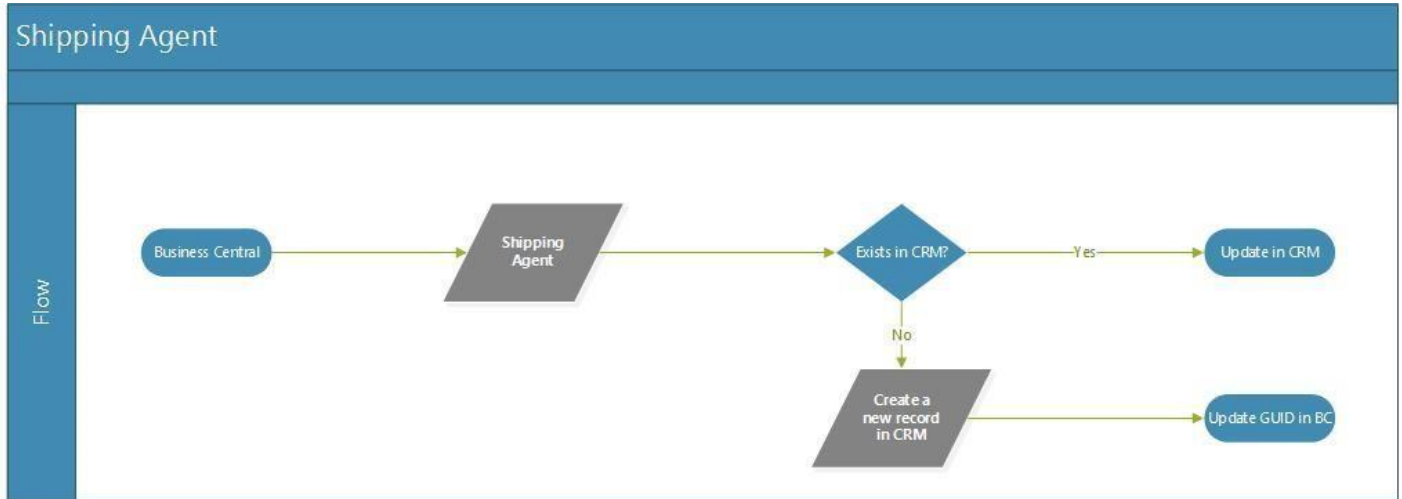
- A new master entity is created in CRM to capture the data flown from BC.
- Shipment method created in BC is flown to CRM and their GUID is captured back in BC.
- The flow diagram is as below:



Shipment Method (11) (Business Central)	CRM Field	Remarks
Code	Code	
Description	Description	
BCS CRM ID	GUID	

8 SHIPPING AGENT

- A new master entity is created in CRM to capture the data flow from BC.
- Shipment method created in BC is flown to CRM and the GUID generated is flown back to BC.
- The general flow will be as below:



Shipping Agent (291) (Business Central)	CRM Field	Remarks
Code	Code	
Name	Description	
BCS CRM ID	GUID	

9 TAX AREA

- A new master entity is created in CRM to capture the data flown from BC.
- Tax area created in BC is flown to CRM and the GUID generated is flown back to BC.

Tax Area (Business Central)	CRM Field	Remarks
Code	Code	
Description	Description	
BCS CRM ID	GUID	

10 SHIP TO ADDRESS

- A new master entity is created in CRM.
- Ship to Address created on Account in CRM is flown BC along with the GUID.

CRM Field	Shipping Address (291) (Business Central)	Remarks
Code	Code	
Name	Name	
Street 1	Address	
Street 2	Address 2	
City	City	
State	State	
Zip Code	Zip Code	
Country/Region	Country/Region	
Tax Liabile	Tax Liabile	
Tax Area	Tax Area	
Contact	Contact	
Email	Email	
Phone No.	Phone No.	

11 LOCATION

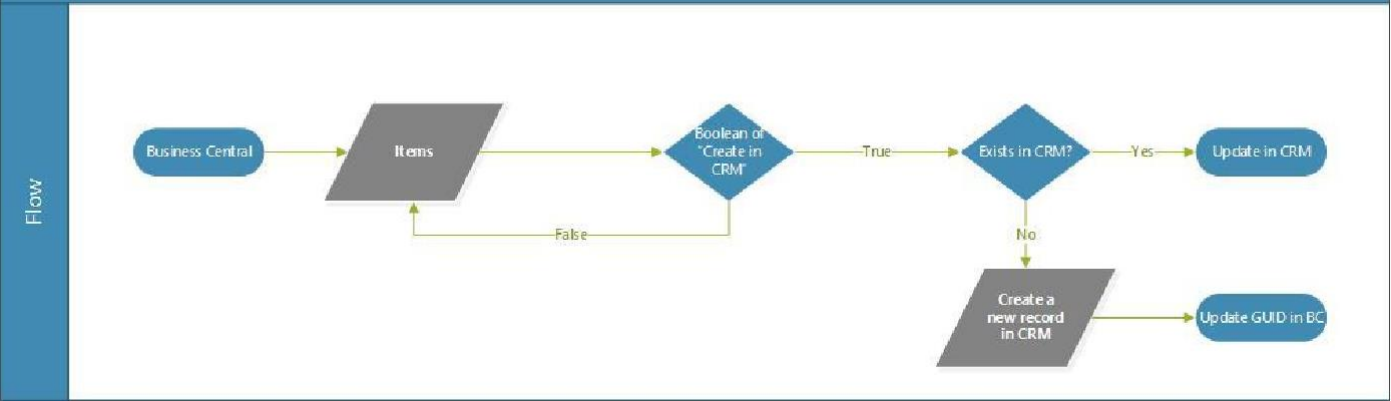
- A new master entity is created in CRM to capture the data flown from BC.
- Location created in BC is flown to CRM and the GUID generated is flown back to BC.

Location (Business Central)	CRM Field	Remarks
Code		
Description	Description	
BCS CRM ID	GUID	

12 ITEMS

- Items will be created in BC and flown to CRM
- The GUID of the product from CRM is flown back in BC.
- If the Type on item is Non-Inventory or Service then those will be synchronized in CRM without any further validation.
- But if the Type is Inventory then, a Boolean named "Crate in CRM" provided on Inventory Posting Group in BC must be ticked to flow them to CRM.
- The general flow is explained below:

Items

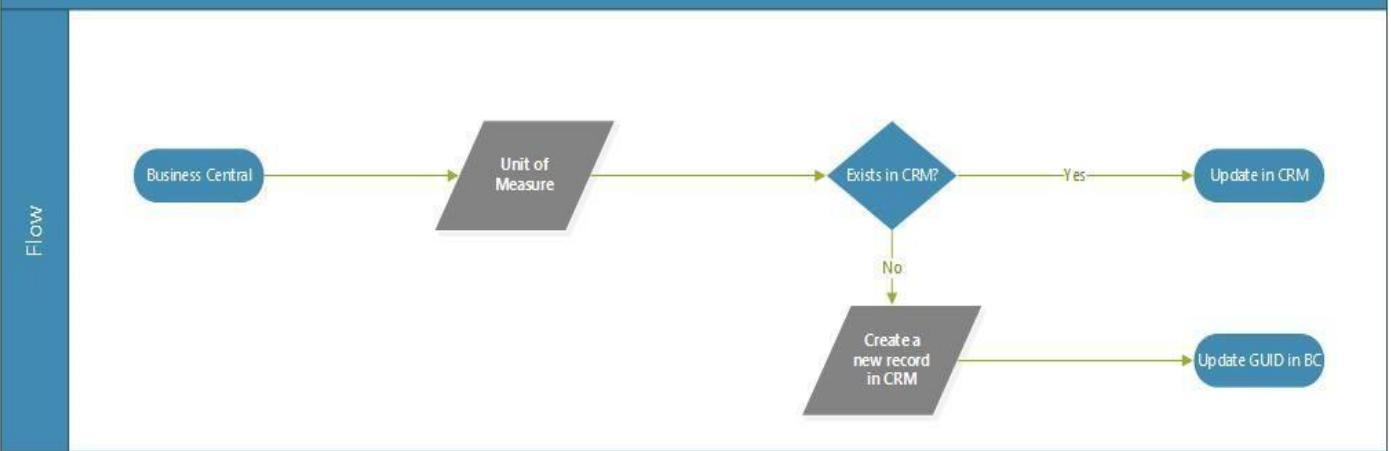


Item (27) (Business Central)	CRM Field	Remarks
No.		
Description 1	Product Name	
Description 2	Product Name	
Base Unit of measure	Default Unit	
CRM ID		A new field will be created in BC to store GUID of product from CRM

13 UNIT OF MEASURE

- Unit of Measures are created in BC and flown to CRM. Since the architecture of UOM is different in CRM, we will flow them under a UOM group named "Default".
- The GUID of UOM from CRM will be updated in BC.
- The general flow is explained below:

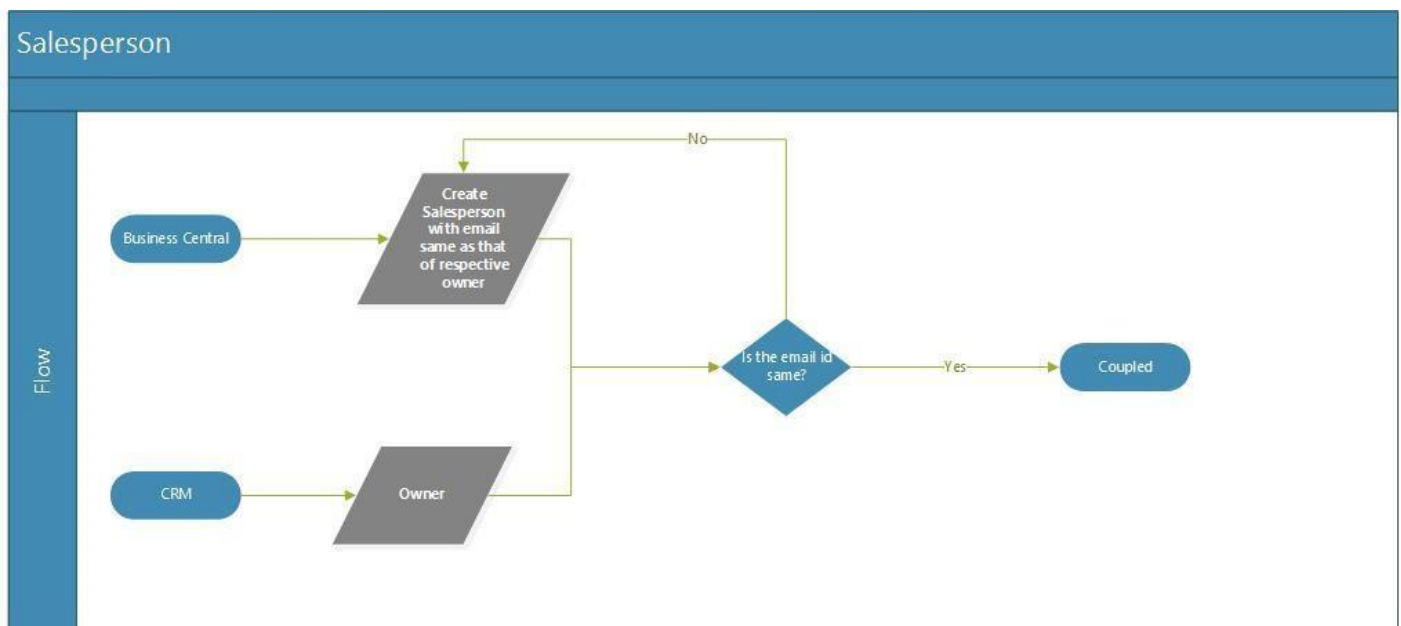
Unit of Measure



Unit of Measure (204) (Business Central)	CRM Field	Remarks
Code		
Description	Description	
BCS CRM ID	GUID	

14 SALESPERSON

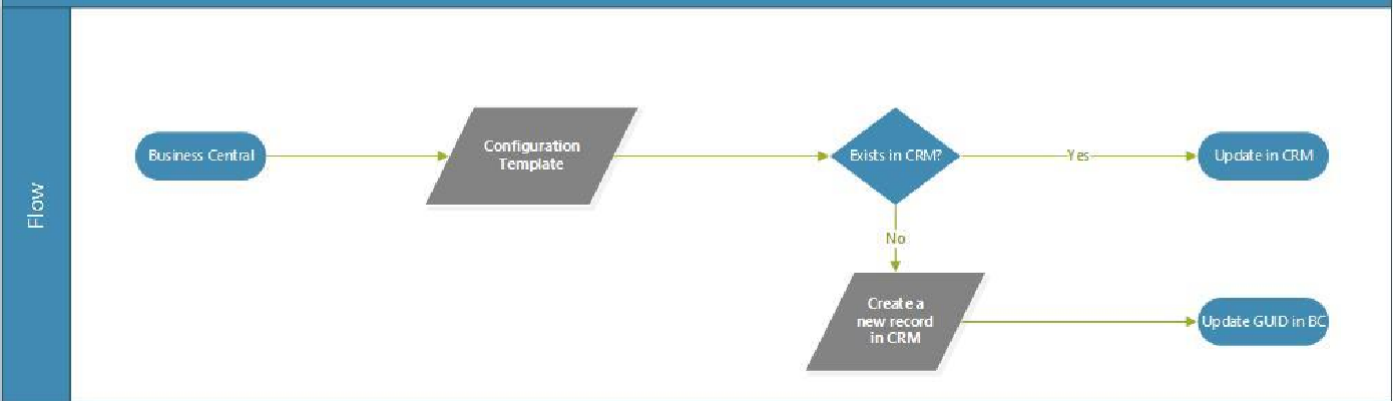
- Users which are identified as Owners in CRM that are coupled with the salesperson of Business Central.
- In BC, Salespeople's masters also serve the purpose of storing the purchaser code. And, a record in this master must have a code (PK) in BC.
- Salesperson master must be created manually in BC with the same email as the email selected on respective owner in CRM.
- As soon as user clicks on salesperson under Map Data, they will be coupled.
- The general flow is explained in below image:



15 CONFIGURATION TEMPLATE

- A new master entity is created in CRM to capture the data flow from BC.
- Configuration template created in BC are flow to CRM and their GUID will be captured in BC.

Configuration Template

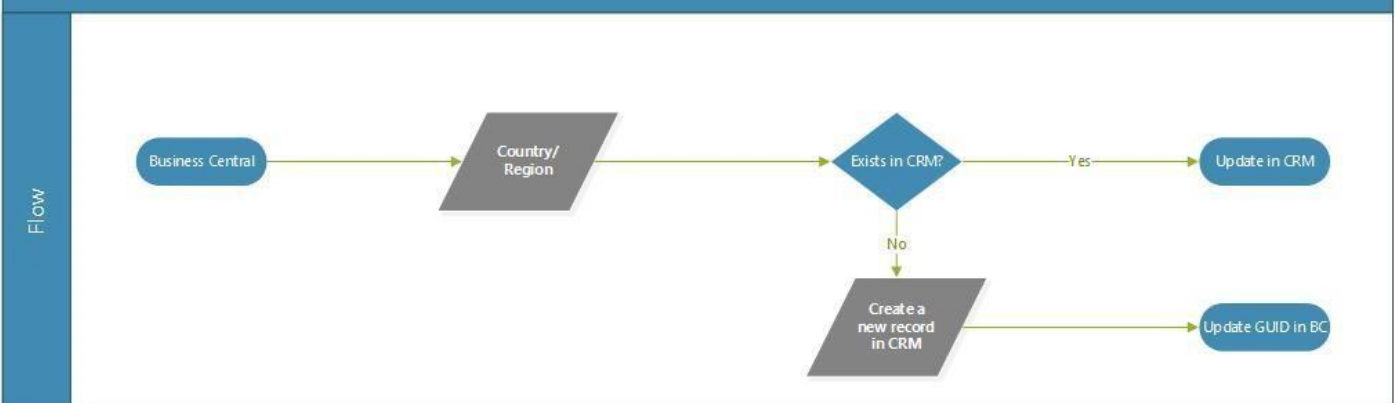


Template(8618) (Business Central)	CRM Field	Remarks
Code		
Description	Description	
BCS CRM IS	GUID	

16 COUNTRY / REGION

- A new master entity is created in CRM to capture the data flow from BC.
- Countries/region created in BC will be flown to CRM and their GUID will be flown back in BC.

Country/Region



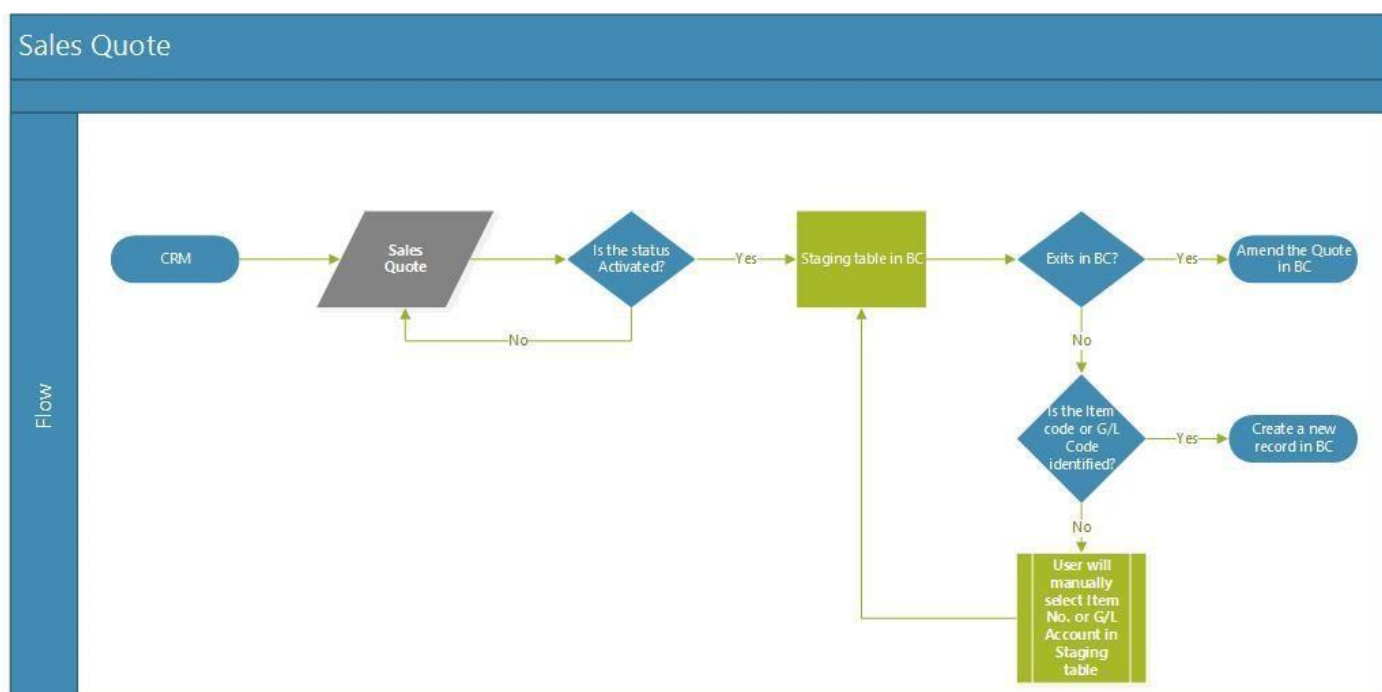
Country/Region (9) (Business Central)	CRM Field	Remarks
Code		
Description	Description	
BCS CRM ID	GUID	

17 CURRENCY

- Master of currencies will be maintained separately in both the systems. They will be coupled based on their code.
- Further, in Business Central for the base currency, we do not need to create a currency code/ need to define in setup, but in CRM base currency will be created and will be mentioned setup of CRM.
- So, during integration of transaction from CRM to BC like Quote/ Order system will ignore currency code if it is Base Currency, and vice-versa during integration from BC to CRM for Sales Invoice, if Currency Code is blank in BC document then system will define Base Currency for such transaction in CRM.

18 SALES QUOTE:

- The sales quotes/revised sales quote is flown from CRM to BC. They can be found in staging table named "CRM Sales quote" under CRM Data.
- Only those sales quote will be flown in BC which have the status as Active in CRM.
- In case of sales quote with write in items, user will have to select the corresponding G/L Accounts in staging table of BC.
- Provision is kept whereby user can change the description of selected product in sales quote in the field named "Description". If the value is entered in that field then system will flow that description in sales quote line other wise it will take the Product Name as description.
- If the Boolean 'Do not Allow to modify the Sales Quote' in CRM Integration Setup is set to True then user will not be able to modify or delete any details flowing from CRM. They will, however, be able to add new line with type Comment and amend any field which is not flowing from CRM.
- If the Boolean 'Keep the sales quote no same as CRM' in CRM Integration Setup is set to True then a new document of sales quote in BC will be created with same document no as the one found in CRM.
- Calculation of tax and other validation check (if any) will happen in BC only.
- If the description is mentioned in quote line then same will flow in description in sales quote line against that item.
- General flow will be as shown in below diagram:



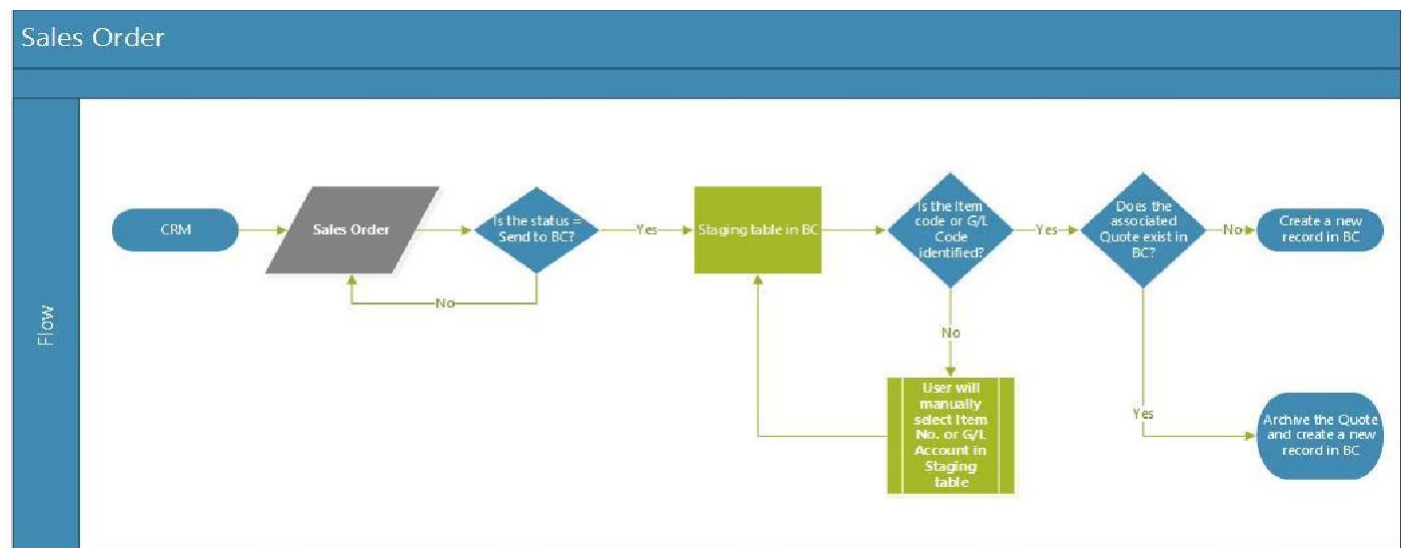
- The mapping of the fields is as below:

CRM Field	Sales Quote Header Staging Table	Sales Quote Header (36) (Business Central)	Remarks
Quote ID	CRM Quote ID	No, Your Reference	
Account	Customer No.	Customer No.	Based on GUID of Account on Sales Quote.
	Customer Name	Name	
	Customer Name 2	Name 2	
	Customer Address	Address	
	Customer Address 2	Address 2	
Quote Date	Document Date	Document Date	A new filed is developed in CRM to capture the quote date.
Quote Date	Posting Date	Posting Date	A new filed is developed in CRM to capture the quote date.
Owner	Salesperson Code	Salesperson Code	
Payment Term	Payment Term Code	Payment Term Code	A new filed is developed in CRM, which will be lookup of Payment Terms.
Revision ID	Revision No.	No. of Archived Version	
Currency	Currency	Currency Code	
Requested Delivery date	Requested Delivery	Requested Delivery date	
Shipment Method	Shipment Method	Shipment method	A new filed is developed in CRM, which will be lookup of Shipment Method.
Shipping Agent	Shipping Agent	Shipping Agent	A new filed is developed in CRM, which will be lookup of Shipping Agent.
Location Code	Location Code	Location Code	A new filed is developed in CRM, which will be lookup of Location.
Ship to Code	Shipp to Code	Ship to Code	A new filed is developed in CRM, which will be lookup of Ship to Address.
Description	Description	Work Description	
CRM Field	Sales Quote Line Staging Table	Sales Quote Line (37) (Business Central)	Remarks
	Type	Type	Type will be Item if the Product ID is found in Line In case of write in items, it will be G/L Account.
Product ID	Item No.	Item No.	Based on GUID of Products in CRM.
	Description 1	Description 1	If there is no value in Description in sales quote line in CRM, then the Product name will be description in Sales quote line in BC. If the description is found (in case user wants to modify the name) then same will be flown in BC.

			If there is no value in Description in sales quote line in CRM then the Item name will be description in Sales quote line in BC. If the description is found (in case user wants to modify the name) then same will be flown in BC.
	Description 2	Description 2	
Quantity	Quantity	Quantity	
Unit	UOM	UOM	
Price per Unit	Unit Price	Unit Price	
Discount	Line Discount Amount	Line Discount Amount	
Extended Amount	Line Amount Excl. of Tax		Line amount of Excl. of Tax will be calculated by standard system based on Quantity, Unit price and Line Discount

19 SALES ORDER

- Sales orders are flown from CRM to BC. Only those sales orders will be flown in BC which have the state code as Active and status as confirmed in CRM. They can be found in "CRM sales order" under CRM Data.
- In case of orders with write in Product, user will have to select the corresponding G/L Accounts in staging table of BC.
- Whenever a new sales order is created in staging table of BC, BC will check for the CRM quote ID in BC. If that value is found in sales quote table of BC, system will archive that quote and create a new order from staging table.
- Provision is kept whereby user can change the description of selected product in sales order in the field named "Description". If the value is entered in that field then system will flow that description in sales order line otherwise it will take the Product Name as description.
- If the Boolean 'Do not Allow to modify the Sales Order' in CRM Integration Setup is set to True then user will not be able to modify or delete any details flowing from CRM. They will, however, be able to add new line with type Comment and amend any field which is not flowing from CRM.
- If the Boolean 'Keep the sales order no same as CRM' in CRM Integration Setup is set to True then a new document of sales order in BC will be created with same document no as the one found in CRM.
- Calculation of tax and other validation check (if any) will happen in BC
- If the description is mentioned in order line then same will flow in description in sales order line against that item.
- The general flow will be as shown in below diagram:



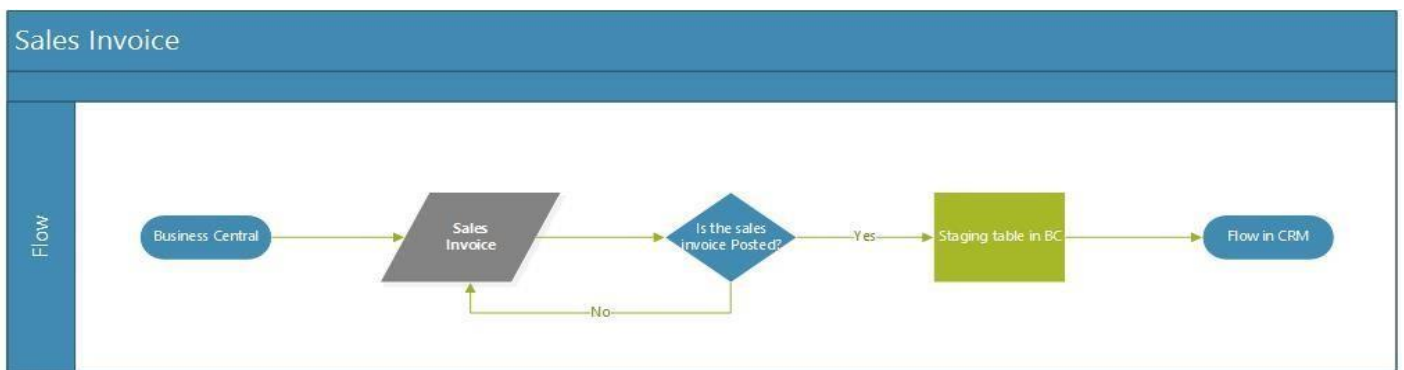
- The mapping of the field is as below:

CRM Field	Sales Order Header Staging Table	Sales Order Header (36) (Business Central)	Remarks
Order ID	CRM Order ID	No, Your reference	
Sales Quote ID	CRM Sales Quote ID	Quote No.	
Account ID	Customer No.	Customer No.	Based on CUID of Account found on Order.
	Customer Name	Name	
	Customer Name 2	Name 2	
	Customer Address	Address	
	Customer Address 2	Address 2	
Document Date	Document Date	Document Date	A new field developed in CRM.
Posting Date	Posting Date	Posting Date	A new field developed in CRM.
Owner	Salesperson Code	Salesperson Code	
Payment Term	Payment Term Code	Payment Term Code	A new filed is developed in CRM, which will be lookup of Payment Terms.
Shipment Method	Shipment Method code	Shipment Method code	A new filed is developed in CRM, which will be lookup of Shipment Method.
Shipping Agent	Shipping Agent	Shipping Agent	A new filed is developed in CRM, which will be lookup of Shipping Agent.
Requested Delivery	Requested Delivery date	Requested Delivery Date	
Location Code	Location Code	Location Code	A new filed is developed in CRM, which will be lookup of Location.
Ship to Code	Shipp to Code	Ship to Code	A new filed is developed in CRM, which will be lookup of Ship to Address.
Description	Description	Work Description	
CRM Field	Sales Order Line Staging Table	Sales Order Line (37) (Business Central)	Remarks
	Type	Type	Type will be Item if the Product ID is found in Line In case of write in items, it will be G/L Account.
Product ID	Item No.	Item No.	Based on GUID of Items in CRM
	Description 1	Description 1	If there is no value in Description in sales order line in CRM, then the Product name will be description in Sales order line in BC. If the description is found (in case user wants to modify the name) then same will be flown in BC.
	Description 2	Description 2	If there is no value in Description in sales order line in CRM, then the Product name will be description in Sales order line in BC. If the description is found (in case user wants to modify the name) then same will be flown in BC.
Quantity	Quantity	Quantity	

Units	UOM	UOM	
Price per Unit	Unit Price	Unit Price	
Discount	Line Discount Amount	Line Discount Amount	
Extended Amount	Line Amount Excl. of Tax	Line Amount Excl. of Tax	Line amount of Excl. of Tax will be calculated by standard system based on Quantity, Unit price and Line Discount.

20 POSTED SALES INVOICE

- Posted sales invoices from BC will be flown from BC to CRM.
- Whenever a Sales Invoice is created in CRM, system will check for the CRM Order related to that Invoice. If that value is found in Sales Order entity then, system will update the status of that Order as Invoiced.
- If that Invoice is cancelled or corrected, then same will be updated against the Invoice in CRM as Status as Canceled.
- The general flow will be:



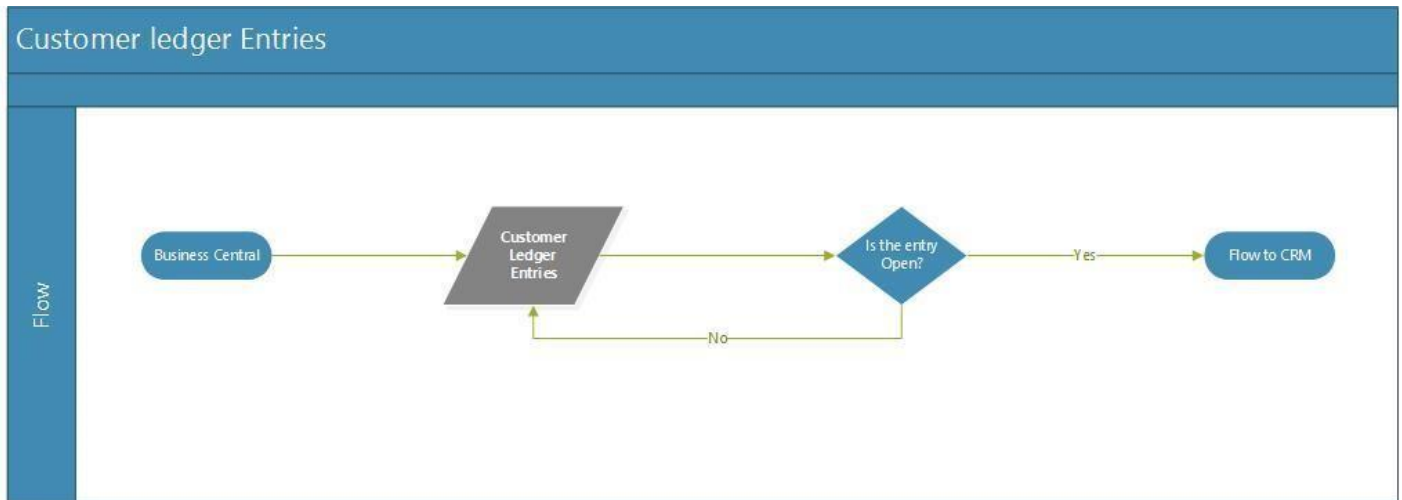
- The field mapping will be as below:

Sales Invoice Header (112) (Business Central)	Sales Invoice Header Staging Table	CRM Field	Remarks
No.	No.	Invoice No.	
Customer No.	Customer No.	Account	Based on GUID
Name	Customer Name		
Name 2	Customer Name 2		
Address	Customer Address		
Address 2	Customer Address 2		
Document Date	Document Date	Document Date	
Posting Date	Posting Date	Posting Date	
Salesperson Code	Salesperson Code	Owner	
Payment Term Code	Payment Term Code	Payment Term	
Shipment Method Code	Shipment Method Code	Shipment method	
Shipping Agent	Shipping Agent	Shipping Agent	
Due Date	Due Date	Due Date	
	Total Tax Amount	Tax Amount	
Amount to Customer	Amount to Customer	Detail Amount	
Location Code	Location Code	Location Code	

Ship to Code	Ship to Code	Ship to Code	
Tax Area Code	Tax Area Code	Tax Area Code	
Sales Invoice Line (113) (Business Central)	Sales Invoice Line Staging Table	CRM Field	Remarks
Document No	No.		Same as the one found in header
Item No.	Item No.	Product ID	Based on GUID
Description 1	Description 1	Product Name	
Description 2	Description 2	Product Name	
Quantity	Quantity	Quantity	
UOM	UOM	Units	
Unit Price	Unit Price	Price Per Unit	
Line Discount Amount	Line Discount Amount	Discount	
Line Amount Excl. of Tax	Line Amount Excl. of Tax	Extended Amount	

21 CUSTOMER LEDGER ENTRY

- A new table is created in CRM to store the open customer ledger entries from BC. The job queue named “synchronize CLE form BC to CRM” will run to delete all the existing lines from CRM and update them with the new one from BC.
- This entity will be linked with Account Entity and related record will be shown in sub grid under Account Master.
- The general flow is as below:



- Following fields are flown from BC’s customer ledger:

Sr. No.	Customer Ledger Entry (21) (Business Central)
1	Document Type
2	Document No.
3	Posting Date
4	Customer No.
5	Invoice Amount
6	Remaining Amount
7	Remaining Amount Other Currencies
8	Currency Code
9	Due Date
10	Description

11	BC Entry No
----	-------------

- A new field named "Balance" is provided on Account to show the outstanding of customers from Customer Ledger Entry.

22 INVENTORY

- A new table is created in CRM to location wise on hand available inventory. The job queue named "synchronize inventory" will run to delete all the existing lines from CRM and update them with the new ones from BC.
 - This entity is linked with product Entity and related record is shown in sub grid under Product Master.
 - If the location code is not found for inventory then such a count of inventory will be show at blank location.
 - A cumulative sum of the inventory of all the location is shown in field named "inventory" in CRM.
-