

**Espire Infolabs Private Limited**

*Software Division*

Integrated Quality Management System

**Design Document**

**For**

**OKI – BIOS (CMT)**

**OKI**

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# Overview

## Purpose

This document describes the understanding of the requiremenst shared by client and proposed solution against the requirements.

The prime intention of this analysis of the requiremenst given by client is and its business implementation ito the CustomerMerge tool application. Like merge one customer group to another customer group with few validation rules and their respective source tables as well as finding out impacts/effects in the application and its related tables.

# Requirements

The main requirement is to do the changes into the existing Customer Merge Tool application.

## Merged CustomerList Page

1. The existing webpage under heading “Tool” would be renamed as “Merged CustomerList” in the header with Merged CustomerList to show the customer group list.
2. In the Merged CustomerList grid, there will be new field CRMCustomerId in the grid and for edit the record.User can also search the record with CRMCystomerId into the grid.
3. Editable records will be VatNum,Name and CRMCustomerId with givin below rules in purposed solution.
4. When editing the records in the Merged CustomerList, many rules will be applied on this its submission. All the rules are decribed in the “Proposed Solution”section mentioned below in this document.

## Merged CustomerList :- Change in Customer Group list

Customer Group Name, VAT Num and CRMCustomerID are displayed into DataMerge tool grid. User can modify the Customer Group Name, VAT Num and CRMCustomerID field. This is for Customer Group List grid.

## Reported CustomerList Page

1. This will be new webpage under heading “Reported CustomerList” in the header with Reported CustomerList to show the customer list.
2. In the Reported CustomerList grid, there will be new fields Id,Key,Name,VAT Number,Distributor Name,Address,Postal Code,City,Country that will be searchable by user in the
3. Editable records will be VatNum and Name with givin below rules in purposed solution.
4. When editing the records in the Reported CustomerList, many rules will be applied on this its submission. All the rules are decribed in the “Proposed Solution”section mentioned below in this document.

## Reported CustomerList :- Change in Reported Customer List

There will be a new customer grid that will show the customer detail and will update the Customer Vat No and Name with different cases.

# Proposed Solution

This project is an about the extension to the current Customer Merge Tool, client is suggesting changes or new requirement related points, which development team is analyzing and posing following approach to makes changes into the Exuisting to fulfill clients requirements.

## Merged CustomerList:

1. There will be new column in the Merged Customerlist grid and in db table CRMCustomerId that will be searchable by user.
2. In the Data Merge tool grid, there is an update image button “Edit” in the grid.
3. When click on this image button “Edit Customer Group”, it will open an “Edit” popup for CustomerGroup with Customer Group Name, VAT Num and CRMCustomerID.

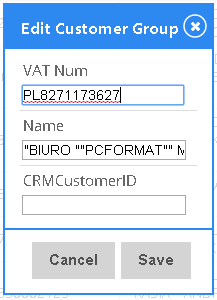


Fig: 1 - Edit Customer Group

1. Edit the Vat Num, Name and CRMCustomerID in “DimCustomerGroup” table. There will a new field CRMCustomerID that will be inserting into the “DimCustomerGroup” table. With the Save button user can save the Vat Num, Name and CRMCustomerID data into the database table with given scenarios or cancel the process with Cancel button.
2. Vat Num, Name and CRMCustomerID will be updated in “DimCustomerGroup” table base on different-2 scenarios.
3. Change into this table would also need to update EDMX into this CMT Project.
4. There will be add a new edmx file into this CMT Project for new database for CRMCustomer table that will be point to a new database
5. Rule will be change for the CRMCustomerId for merge and validations in merge customerList as described in requirement document.
6. Also have to add a new column in to the table and customer grid.With two CRMCustomerId in two columns then can not merge the customer.

## Submission: Edit of Merged Customer List

On Save button click, there will be few rules which will be implemented when save the record.

### CRMCustomerID

1. Rule 1

* Update CRMCustomerID in CMT
* Is new CRMCustomerID there in CRM Intermediate database
  + No - Pop up a message that it’s not there and do not allow to update. Message “Customer is not present in CRM”.
  + Yes- Is New CRMCustomerID already been assigned to some other
* CustomerGroupID in DimCustomerGroup.
  + No - then update the CRMCustomerID
  + Yes - do not allow the user to update CRMCustomerID. (Show Message )

1. Rule 2

* You can not merge 2 customer in DimCustomerGroup with different CRMCustomerID

1. Rule 3

* No 2 customers will have same CRMCustomerID in DimCustomerGroup

1. Rule 4

* Customer in DimCustomerGroup with Not Null CRMCustomerID will always lead the records while merging 2 CustomerGroups

1. Rule 5

* If 2 customers in DimCustomerGroup has CRMCustomerID null and we merge them then the rule to merge remains same as earlier based on VAT and Country.

### CustomerGroupVATNum update:-

1. Rule 1

* Update CustomerGroupVATNum only when it is blank or NULL in DimCustomerGroup

1. Rule 2

* If the CustomerGroupVATNum already Exit, allow user to change the CustomerGroupVATNum. If the CustomerGroupVATNum already exist in DimCustomerGroup then show popup message “Do you want to Merge this Customer with already existing Customer with same VAT” and if user says yes then merge this CustomerGroup with already existing CustomerGroup and assign all its customers in DimCustomer to the merged Customer else do not change the CustomerGroupVATNum. If the CustomerGroupVATNum do not already exist then update .
* When you will update the VatNum then you have to check the valid country code with update VatNum like if you are updating the VatNum for Italy then vatNum should be “IT80009810286”. Use counry code first degits with VatNum.this is the validation for VatNum.

### CustomerGroupName1 Name Update

1. Rule 1

* If CRMCustomerID is NULL then it means there is no link between CRM and BI.

1. Rule 2

* Change CustomerGroupName1 from x to y only when CRMCustomerID is NULL. If CRMCustomerID is populated, then the Name should be grayed out and could not be edited.

1. Rule 3

* Later if the CRMCustomerID is populated using ETL then what ever is the name in CRM will be updated in DimCustomerGroup from ETL and it will be grayed out next time for edit.

## Reported CustomerList:

1. There will be a link in the header with Reported CustomerList to show the customer list.
2. There will be few column in the Reported Customerlist grid like Id,Key,Name,VAT Number,Distributor Name,Address,Postal Code,City,Country that will be searchable by user.
3. In the Customer List grid, there is an update image button “Edit” in the grid.
4. When click on this image button “Edit”, it will open an “Edit “popup for customer with VAT Num and Country.

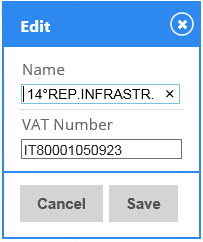


Fig:2 - Edit Customer

1. Edit the Vat Num and Country in “DimCustomer” and “DimCustomerGroup” table. With the Save button user can save the Vat Num and Name to the database table with given scenarios or cancel the process with Cancel button.
2. Vat Num, Name and Name will be updated in “DimCustomer” and “DimCustomerGroup” table base on different-2 scenarios.

## Submission: Edit of Reported Customer List

On Save button click, there will be few rules which will be implemented when save the record.

### CustomerName1 Update

There is no rule to validate so go and change it

### CustomerVATNum Update

1. Rule 1

* If the user changes CustomerVATNum from x to y and y is already in DimCustomerGroup, popup message “This records will be Merged with Already existing CustomerVATNum” if user says yes then and take CustomerGroupId of y from DimCustomerGroup and update in this record CustomerGroupID and CustomerVATNum else Create a new record in DimCustomerGroup with details from this records and assign its CustomerGroupId to this record. If user says no do not update CustomerVATNumber.

1. Rule 2

* If the new CustomerVATNum do not exist in DimCustomerGroup, update the DimCustomer VAT and Insert a new record in the new record in DimCustomerGroup and link both using CustomerGroupid

1. Rule 3

* Some Security about VAT and County XY – ZY123, DimCustomer and DimCustomerGroup its from Country in Dim tables
* When you will update the VatNum then you have to check the valid country code with update VatNum like if you are updating the VatNum for Italy then vatNum should be “IT80009810286”. Use counry code first degits with VatNum.this is the validation for VatNum.

## Imapct on ETL Processes: Update History

* While updating DimCustomerGroup record “UpdatedBy”, “UpdatedDate” and “IsUpdated” will be populated by Who Updated, When Updated and Flag to indicate that it has been updated from CMT.
* ETL flow will check if the IsUpdated Column is populated or not. If it is populated then there will be no change from the ETL Process on this record.

## Log of Changes

* Create a new log table to manage logs the update history for DimCustomerGroup and DimCustomer both Columns of the table as below:-

1. CustomerGroupLog ID
2. CustomerGroupName1
3. CustomerGroupVATNum
4. CRMCustomerID
5. UpdatedBy
6. UpdatedDate

* To maintain records of Customer and Customer group we have to create to tables one for CustomerGroup records log and another for Customer record log.
* This Functionality can be created using CDC in SQL Server and then there will be no need to create a log table.

# Open Questions

# Annexure

1. Requirement Document

