SAP Customer Activity Repository 2.0

SAP

Typographic Conventions

Type Style	Description
Example	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options. Textual cross-references to other documents.
Example	Emphasized words or expressions.
`EXAMPLE`	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
`Example`	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
`Example`	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
`<Example>`	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
`EXAMPLE`	Keys on the keyboard, for example, F2 or ENTER.

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1 Introduction

The SAP Customer Activity Repository standard solution reuses master data and transactional data from SAP ERP for Retail. This data is replicated into the CAR HANA database using the SAP LT replication server.

To implement SAP Customer Activity Repository standalone without SAP ERP for Retail, you must:

- provide an alternative source of master data and transactional data
- implement some of the technical objects in SAP Customer Activity Repository to access this data
- replicate the third-party ERP tables into CAR using the SAP Landscape Transformation Server(SLT)
- provide custom implementations of some of the technical objects (such as BAdIs and HANA views) to leverage the replicated third-party ERP tables

⚠ Caution:

We recommend that implementation of SAP Customer Activity Repository with a third-party system is planned as a separate project by your implementation team, with sufficient time and resources allocated to this project.

Implementation with a third-party system should be carried out by consultants who are experienced with SAP Customer Activity Repository and the specific business scenarios described in this guide.

1.1 About this guide

This document serves as a basis to orient customers considering such an implementation project. It generally describes the technical objects requiring a custom implementation with a third-party ERP system, however each implementation project will present its own unique requirements and constraints.

1.2 Business scenarios

SAP Customer Activity Repository provides multiple functional scenarios. Each scenario requires a different subset of master data and/or transactional data from SAP ERP for Retail. This guide will focus on the following scenarios:

- Point-of-sale Data Transfer and Audit
- Inventory Visibility Analysis
- Multichannel Sales Analysis
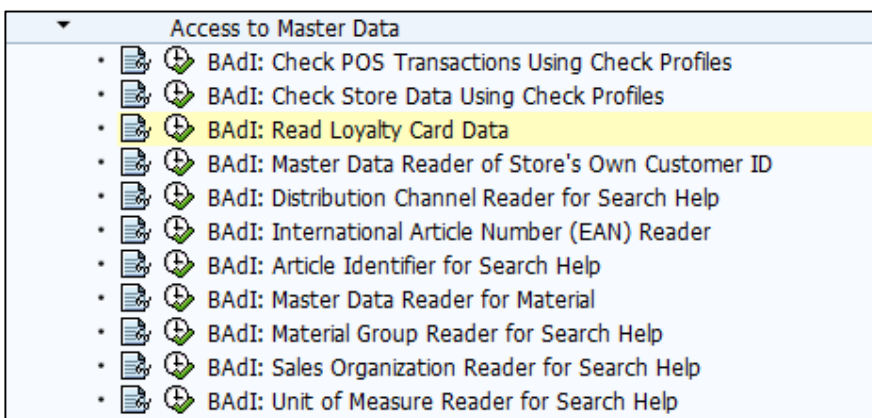- Multichannel Sales for Unified Demand Forecast

Note that this is not an exhaustive of all scenarios currently supported by SAP Customer Activity Repository. Further iterations of this guide will expand support of additional business scenarios.

2 Point-of-sale Data Transfer and Audit

2.1 Accessing master data and verifying point-of-sale transactions against master data

When integrating with SAP ERP, SAP Customer Activity Repository reads master data replicated from SAP ERP using BAdIs that read from HANA views included in SAP HANA Live for SAP ERP and SAP HANA Content for SAP Customer Activity Repository.

When integrating with a non-SAP ERP, you need to re-implement the BAdIs which provide Access to Master Data. These BAdIs can be found in POS Data Management customizing (transaction /N/POSDW/IMG) under node POS Inbound Processing -> Customer-Specific Enhancements and BAdI Implementations -> Enhancement of Implementation of Access Methods -> Access to Master Data.

```
▼    Access to Master Data
   •  ⓑ ⓙ BAdI: Check POS Transactions Using Check Profiles
   •  ⓑ ⓙ BAdI: Check Store Data Using Check Profiles
   •  ⓑ ⓙ BAdI: Read Loyalty Card Data
   •  ⓑ ⓙ BAdI: Master Data Reader of Store's Own Customer ID
   •  ⓑ ⓙ BAdI: Distribution Channel Reader for Search Help
   •  ⓑ ⓙ BAdI: International Article Number (EAN) Reader
   •  ⓑ ⓙ BAdI: Article Identifier for Search Help
   •  ⓑ ⓙ BAdI: Master Data Reader for Material
   •  ⓑ ⓙ BAdI: Material Group Reader for Search Help
   •  ⓑ ⓙ BAdI: Sales Organization Reader for Search Help
   •  ⓑ ⓙ BAdI: Unit of Measure Reader for Search Help
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POS transactions are verified against the master data that is replicated from a source SAP ERP system. These so called master data checks are encapsulated in BAdIs that would need to be re-implemented to verify the POS transactions against the master data that is replicated from a third-party source ERP system.

The standard SAP implementation of the BAdIs above reads the master data from the following HANA Views. The "Auto Documentation" feature of the SAP HANA Studio can be used to display the details of each view.

View sap.is.retail.ecc/MATERIAL

Column Name	Column Label	Data Type	Length
MANDT	SAP Client	NVARCHAR	3
MATERIAL	Material	NVARCHAR	18
MATERIAL_NAME	Material Name	NVARCHAR	40
MATERIAL_GROUP	Material Group	NVARCHAR	9
MATERIAL_BASE_UNIT	Material Base Unit of Measure	NVARCHAR	3

View sap.is.retail.ecc/MATERIAL_UNIT_OF_MEASURE

Column Name	Column Label	Data Type	Length
MANDT	SAP Client	NVARCHAR	3
MATERIAL	Material	NVARCHAR	18
ALTERNATIVE_UNIT	Alternative unit of measure for stock keeping	NVARCHAR	3
MATERIAL_QTY_TO_BASE_QTY_NMNTR	Nominator for conversion to base unit of measure	DECIMAL	5
MATERIAL_QTY_TO_BASE_QTY_DNMNT	Denominator for conversion to base unit of measure	DECIMAL	5

View sap.is.retail.ecc/MATERIAL_INTERNATIONAL_ARTL_NMBR

Column Name	Column Label	Data Type	Length
MANDT	SAP Client	NVARCHAR	3
MATERIAL	Mnaterial	NVARCHAR	18
BASE_UNIT	Unit of Measure for Display	NVARCHAR	3
INTERNATIONAL_ARTICLE_NUMBER	International Article Number (EAN/UPC)	NVARCHAR	18

View sap.hba.ecc.Plant

Column Name	Column Label	Data Type	Length
SAPClient	SAP Client	NVARCHAR	3
Plant	Plant	NVARCHAR	4
PlantName	Plant Name	NVARCHAR	30
PlantCustomerNmbr	Plant Customer Number	NVARCHAR	10
PlantSecondName	Plant Second Name	NVARCHAR	30
PostalCode	Postal Code	NVARCHAR	10
PurchasingOrganisation	Purchasing Organization	NVARCHAR	4

Column Name	Column Label	Data Type	Length
SalesOrganization	Sales Organization	NVARCHAR	4
Country	Country	NVARCHAR	3
Region	Region	NVARCHAR	3
County	County	NVARCHAR	3
SalesDistrict	Sales District	NVARCHAR	6
PlantCategory	Plant Category	NVARCHAR	1
DistributionChannel	Distribution Channel	NVARCHAR	2

View sap.hba.ecc.SalesOrganization

Column Name	Column Label	Data Type	Length
SAPClient	SAP Client	NVARCHAR	3
SalesOrganization	Sales Organization	NVARCHAR	4
SalesOrganizationName	Sales Organization Name	NVARCHAR	20
SalesOrganizationCurrency	Sales Organization Currency	NVARCHAR	5
CompanyCode	Company Code	NVARCHAR	4
Customer	Customer	NVARCHAR	10
Country	Country	NVARCHAR	3
CompanyCodeCurrency	Company Code Currency	NVARCHAR	5
FiscalYearVariant	Fiscal Year Variant	NVARCHAR	2

View sap.hba.ecc.DistributionChannel

Column Name	Column Label	Data Type	Length
SAPClient	SAP Client	NVARCHAR	3
DistributionChannel	Distribution Channel	NVARCHAR	2
DistributionChannelName	Distribution Channel Name	NVARCHAR	20

View sap.hba.ecc.MaterialGroup

Column Name	Column Label	Data Type	Length
SAPClient	SAP Client	NVARCHAR	3
MaterialGroup	Material Group	NVARCHAR	9
MaterialGroupName	Material Group Name	NVARCHAR	20

View sap.hba.ecc.UnitofMeasure

Column Name	Column Label	Data Type	Length
SAPClient	SAP Client	NVARCHAR	3
UnitofMeasure	Unit of Measure Internal ID	NVARCHAR	3
UnitofMeasure_E	Unit of Measure Commercial Name	NVARCHAR	3
UnitofMeasureLongName	Unit of Measure Long Name	NVARCHAR	30
UnitofMeasureDimensionName	Unit of Measure Dimension Description Text	NVARCHAR	20

View sap.is.retail.ecc/ARTICLEPOSCTRL

Column Name	Column Label	Data Type	Length
MANDT	SAP Client	NVARCHAR	3
RETAILSTOREID	Retail Store ID	NVARCHAR	10
ARTICLE	Article Number	NVARCHAR	18
ISDISCOUNTABLE	Is Discountable	NVARCHAR	1

One possible approach to provide the master data from a third-party source ERP system, is to re-implement these views above to read from third-party ERP tables. For each one of the views to be re-implemented, follow the procedure below:

1. Export the Auto Documentation for the view using SAP HANA Studio and understand the "signature" of the view (the columns that the view provides)
2. Identify the third-party ERP tables that contain the information required by this view and replicate those tables to the CAR HANA database.

3. Create a new custom view with the same name as the SAP view and place it in a custom package, such as "**custom**.hba.ecc".
4. Build the view to read from the third-party ERP tables that contain the required information and expose the same exact columns as the original SAP view.
5. Define a new Check Profile
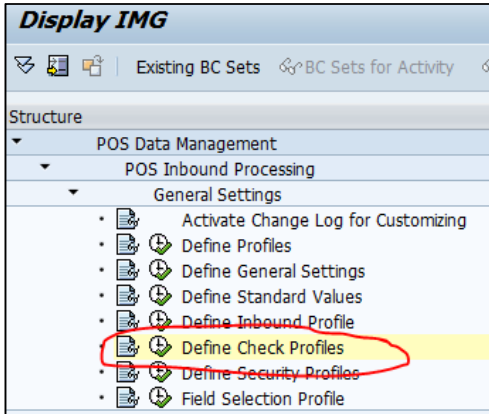
6. In the new Check Profile, configure the filters to point to the respective filters of your implementation of the "BAdI: Check Store Data Using Check Profiles" and "BAdI: Check POS Transactions Using Check Profiles"

Checks of Store Data		
Filter for Store Data Check	1000	
Lower-Level Checks		
Filter for Store Master Check		1001
Filter for Individual Check		

Checking POS Transactions		
Filter: Sales Item Check	2000	
Lower-Level Checks		
Filter for EAN Check		2001
Filter for Unit of Measurement Check		2002
Filter for Material Data Check		2003
Filter for Individual Check		

Filter for Checking Goods Movement Items	2100	
Lower-Level Checks		
Filter for EAN Check		2101
Filter for Unit of Measurement Check		2102
Filter for Material Data Check		2103
Filter for Individual Check		

Filter for Tender Check	2200	
Lower-Level Checks		
Filter for Credit Card Data Check		2201
Filter for Individual Check		

Filter for Ind. Check of POS Transaction		

7. Configure your General Profile and Store Settings to use the new Check Profile.
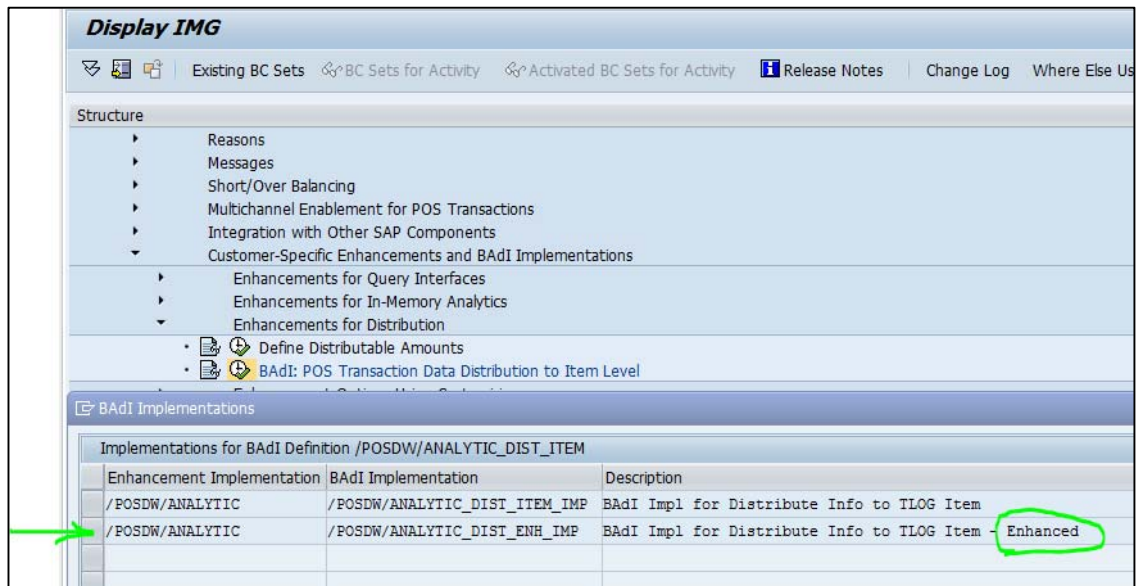
2.2 Enhanced distribution of TLOG header discounts to item

This section is only required when using the BAdI implementation for enhanced distribution of TLOG header discounts to item shown in the picture below. If the basic distribution is used, then this section is not required.


If needed, a custom implementation for BAdI /POSDW/POSCTRL_READER must be provided. The SAP standard implementation of BAdI /POSDW/POSCTRL_READER uses the HANA view sap.is.retail.ecc/ARTICLEPOSCTRL. A custom implementation can be created and activated using SAP Transaction Code SE18 (BAdI Builder).

3 Inventory Visibility Analysis

This virtual data model (VDM) provides a comprehensive view of inventory information for the store network. You can find detailed information about this VDM in the Application Help http://help.sap.com/saphelp_car100/helpdata/en/9a/94e80138944a339306c2294db3193f/content.htm.

The scenario POS Data Transfer & Audit is a pre-requisite for the Inventory Visibility Analysis scenario, as the latter requires POS Transaction Data provided by the POS Data Transfer & Audit scenario.
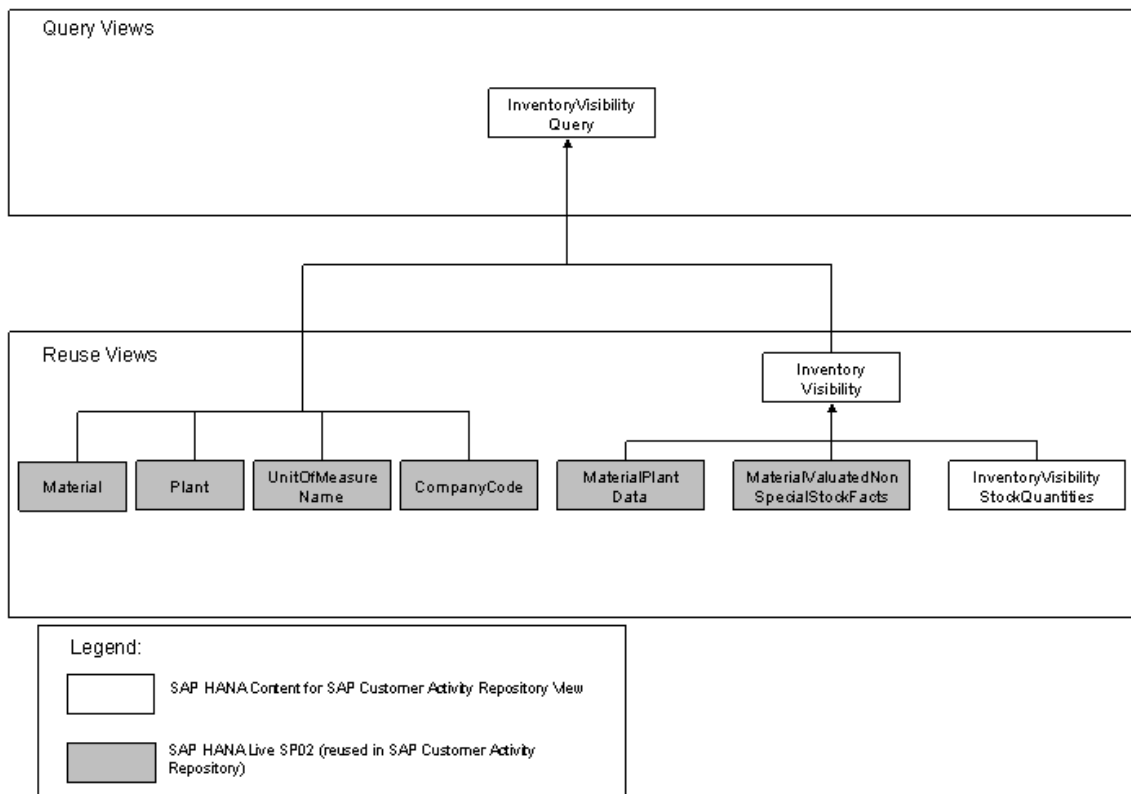
3.1 Inventory Visibility Reuse View

The figure above shows the high level structure of this virtual data model. The main view of this virtual data model is the reuse view InventoryVisibility (package sap.is.retail.car), which provides a unified view of inventory information from SAP ERP for Retail and SAP Customer Activity Repository. This view reads the inventory information replicated from SAP ERP for Retail.

One possible approach to provide data from a third-party source ERP system, is to re-implement the views below to read from third-party ERP tables:

View sap.hba.ecc.MARD_stocks

Column Name	Column Label	Data Type	Length
MANDT	Client	NVARCHAR	3
MATNR	Article Number	NVARCHAR	18
WERKS	Site	NVARCHAR	4
LABST	Valuated Unrestricted-Use Stock	NVARCHAR	13

View sap.hba.ecc.MARC_stocks

Column Name	Column Label	Data Type	Length
MANDT	Client	NVARCHAR	3
MATNR	Article Number	NVARCHAR	18
WERKS	Site	NVARCHAR	4
UMLMC	Stock in Transfer (Plant to Plant)	DECIMAL	13
TRAME	Stock in Transit	DECIMAL	13

View sap.hba.ecc.MARC_KeyNonValuated

Column Name	Column Label	Data Type	Length
MANDT	Client	NVARCHAR	3
MATNR	Article Number	NVARCHAR	18
WERKS	Site	NVARCHAR	4
BSTTYP		NVARCHAR	1

View sap.hba.ecc.MaterialValuatedNonSpecialStockFacts

Column Name	Column Label	Data Type	Length
SAPClient	SAP Client	NVARCHAR	3
CompanyCode	Company Code	NVARCHAR	4

Column Name	Column Label	Data Type	Length
Plant	Plant	NVARCHAR	4
Material	Material	NVARCHAR	18
TotalVltdStockQuantity	Total Valuated Stock Quantity	DECIMAL	15
TotVltdStockValueInCoCodeCrcy	Total Valuated Stock Value in Company Code Currency	DECIMAL	19
TotStkValAtSlsPrInCoCodeCrcy	Total Stock Valuated at Sales Price in Company Code Currency	DECIMAL	13

View sap.hba.ecc.MaterialPlantData

Column Name	Column Label	Data Type	Length
SAPClient	SAP Client	NVARCHAR	3
Material	Material	NVARCHAR	18
Plant	Plant	NVARCHAR	4
MaterialSafetyStockQty	Material Safety Stock Quantity	DECIMAL	13
MaterialMaxStockLevelQuantity	Material Maximum Stock Level Quantity	DECIMAL	13
MaterialMinSftyStockQuantity	Material Minimum Safety Stock Quantity	DECIMAL	13
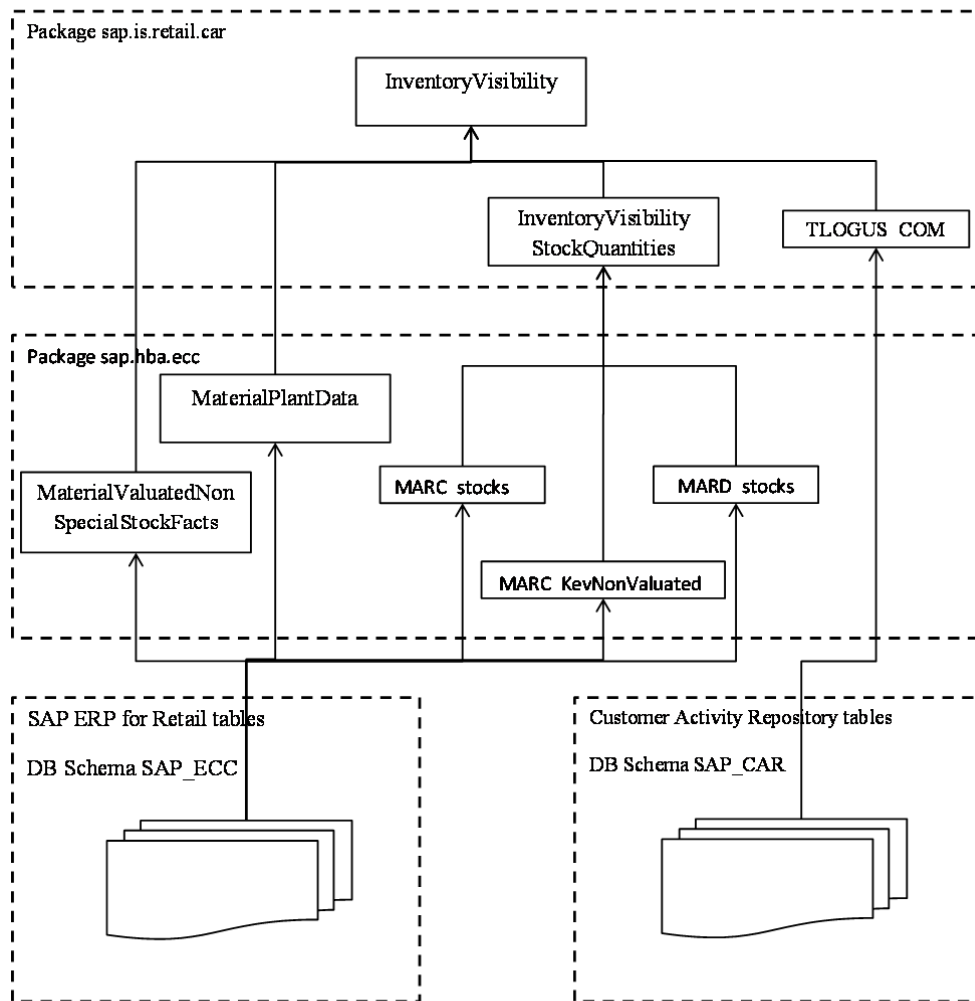
For each one of the views to be re-implemented, follow the procedure below:

1. Export the Auto Documentation for the view using SAP HANA Studio and understand the "signature" of the view (the columns that the view provides)
2. Identify the third-party ERP tables that contain the information required by this view and replicate those tables to the CAR HANA database.
3. Create a new custom view with the same name as the SAP view and place it in a custom package, such as "**custom**.hba.ecc".
4. Build the view to read from the third-party ERP tables that contain the required information and expose the same exact columns as the original SAP view.

The next step is to adapt the higher level CAR views to consume the custom built views above. Follow the procedure below:

1. Copy the views below to a new custom package, such as "**custom**.is.retail.car"
   - sap.is.retail.car.InventoryVisibility
   - sap.is.retail.car.InventoryVisibilityStockQuantities
2. Export the copied views from package "**custom**.hba.ecc" using the SAP HANA Studio developer mode export feature to a local folder on your machine.

3. For each one of the exported views, open the exported file in a text editor and search for the string "sap.hba.ecc" and replace it with "**custom**.hba.ecc". This will change the data sources of the copied views to the custom views that you built to read data from the third-party ERP tables.
4. Import the modified files into package "**custom**.hba.ecc" using the SAP HANA Studio developer mode import feature
5. Activate the newly added custom views located in both packages "custom.hba.ecc" and "custom.is.retail.car"

The figure below shows how the custom virtual data model could look like if the above procedure was followed.
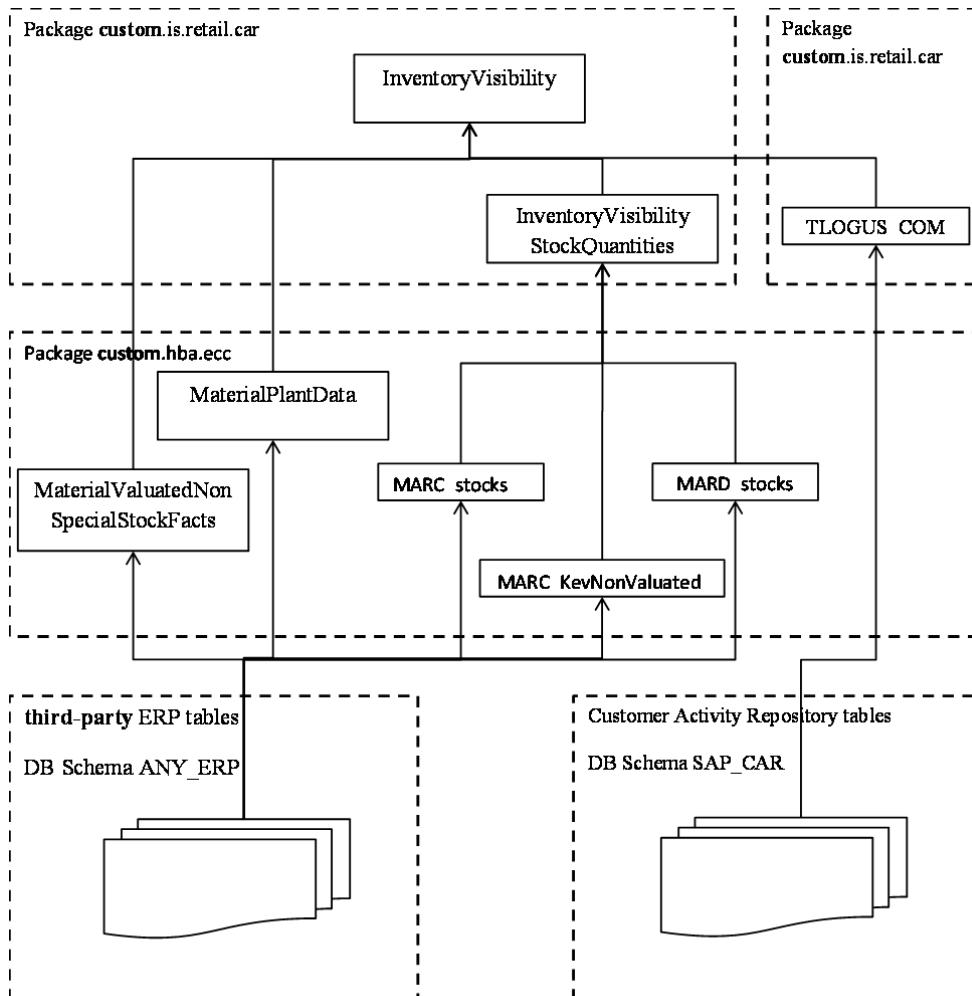

3.2 Inventory Visibility Query Views

You can use the sap.is.retail.car.InventoryVisibilityQuery view as a template to build several, use-case targeted query views which consume the custom InventoryVisibility view that you built above and other master data reuse views similar to the sap.hba.ecc.Material or sap.hba.ecc.Plant views. For these master data views, you could take the same approach as above and re-implement them to read from the third-party ERP tables.

4 Multichannel Sales Analysis

This virtual data model (VDM) provides a comprehensive view of sales and transactional data across all channels to be used in controlling, marketing, promotion management, and monitoring retailing processes. You can find detailed information about this VDM in the Application Help:

http://help.sap.com/saphelp_car100/helpdata/en/d2/d085d9c89b4660b41a61233dd49eee/content.htm
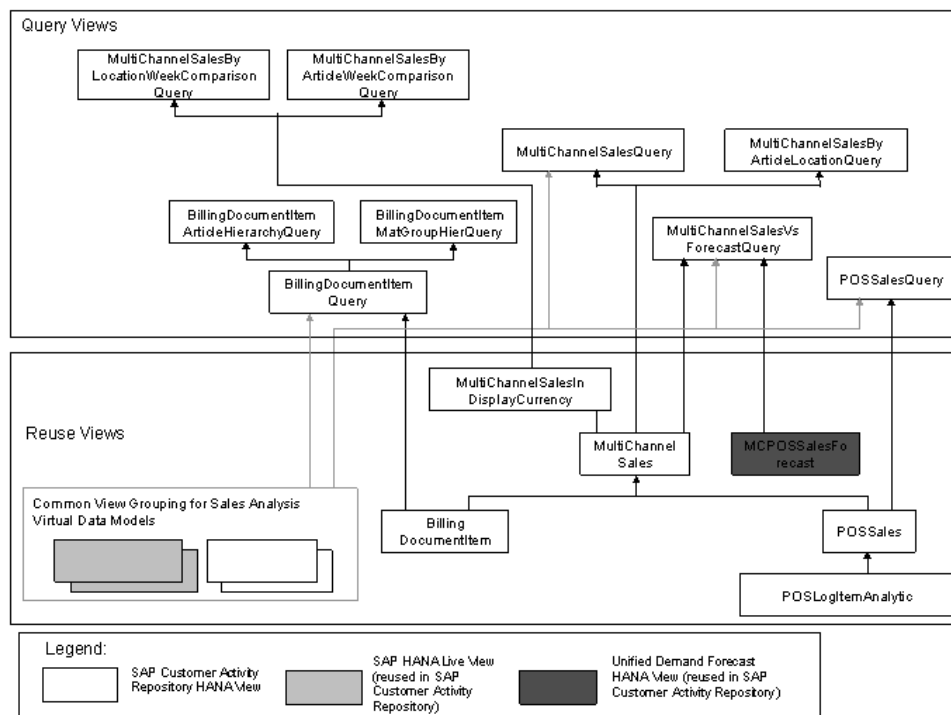
This figure above shows the high level structure of this virtual data model. The view MultiChannelSales consolidates the information provided by the views POSSales (POS Transaction Sales Analysis) and BillingDocumentItem (Sales Analysis Based on Billing Documents) to give you an overall view of customers transactional activities across channels.

The standard view POSSales uses TLOG data that is saved in the repository using the POS Data Transfer & Audit component.

The standard view BillingDocumentItem uses sales data replicated into the repository from SAP ERP. For these Billing Documents views, you need to re-implement them to read from the third-party ERP tables.
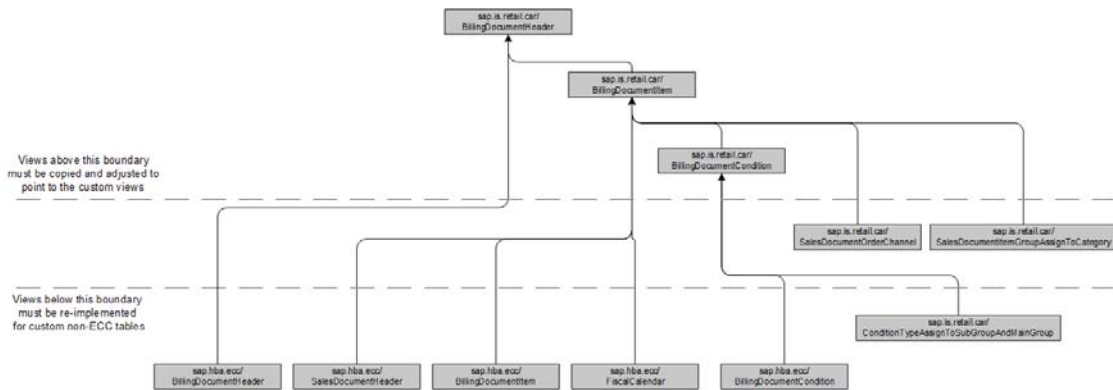
The figure above shows the high level structure of the Billing Documents views. The main views are as follows:

- sap.is.retail.car/BillingDocumentHeader
- sap.is.retail.car/BillingDocumentItem
- sap.is.retail.car/BillingDocumentCondition

The BillingDocumentHeader (package sap.is.retail.car) reuse view provides a unified view of billing document header data, including characteristics and KPIs from billing document headers in SAP Retail for ERP.

The BillingDocumentItem (package sap.is.retail.car) reuse view provides a unified view of billing document item data, including codes and KPIs from billing documents.

The BillingDocumentCondition (package sap.is.retail.car) reuse view provides a unified for aggregating prices, discounts, and taxes for every billing document item in SAP ERP for Retail.

One possible approach to provide data from a third-party source ERP system is to re-implement the views below to read from third-party ERP tables:

View sap.hba.ecc/BillingDocumentHeader

Reuse view for billing document headers.

Column Name	Column Label	Data Type	Length
SAPClient	Client	NVARCHAR	3
BillingDocument	Billing Document	NVARCHAR	10
AbsValueofDiscountItems	Absolute Value of Discount Items	INTEGER	10
AbsValueofPromotionItems	Absolute Value of Promotion Items	INTEGER	10
AbsValueofRegularSalesItems	Absolute Value of Regular Sales Items	INTEGER	10
NumberOfBillingDocumentItems	Number of Billing Document Items	INTEGER	10
NumberOfReturnItems	Number of Return Items	INTEGER	10

View sap.hba.ecc/SalesDocumentHeader

Reuse view for sales document headers.

Column Name	Column Label	Data Type	Length
SAPClient	Client	NVARCHAR	3
SalesDocument	Sales Document	NVARCHAR	10

Column Name	Column Label	Data Type	Length
CreationDate	Creation Date	NVARCHAR	8
CreationTime	Creation Time	NVARCHAR	6
SalesDocumentType	Sales Document Type	NVARCHAR	4
SDDocumentReason	Sales Document – Document Reason	NVARCHAR	3
SoldToParty	Sold-To Party	NVARCHAR	10

View sap.hba.ecc/BillingDocumentItem

Reuse view for billing document items.

Column Name	Column Label	Data Type	Length
SAPClient	Client	NVARCHAR	3
BillingDocument	Billing Document	NVARCHAR	10
BillingDocumentItem	Billing Document Item	NVARCHAR	6
SalesDistrict	Sales District	NVARCHAR	6
BillingDocumentDate	Billing Document Date	NVARCHAR	8
CustomerGroup	Customer Group	NVARCHAR	2
SDDocumentCategory	Sales Document – Document Category	NVARCHAR	1
SalesOrganization	Sales Organization	NVARCHAR	4
SalesOrganizationName	Sales Organization Name	NVARCHAR	20
DistributionChannel	Distribution Channel	NVARCHAR	2
TransactionCurrency	Transaction Currency	NVARCHAR	5
BillingDocumentIsCancelled	Billing Document Is Cancelled	NVARCHAR	1
RetailPromotion	Retail Promotion	NVARCHAR	10
SalesDocument	Sales Document	NVARCHAR	10
InternationalArticleNumber	International ArticleNumber	NVARCHAR	18
MaterialGroup	Material Group	NVARCHAR	9
Material	Material	NVARCHAR	18
BaseUnit	Base Unit	NVARCHAR	3
SalesDocumentItemType	Sales Document Item Type	NVARCHAR	1
ProductHierarchyNode	Product Hierarchy Node	NVARCHAR	18
SalesDocumentItemCategory	Sales Document Item Category	NVARCHAR	4
Division	Division	NVARCHAR	2
BillingQuantityUnit	Billing Quantity Unit	NVARCHAR	3
Plant	Plant	NVARCHAR	4
FiscalYearVariant	Fiscal Year Variant	NVARCHAR	2
BillingDocumentItemText	Billing Document Item Text	NVARCHAR	40
BillToPartyRegion	Bill To Party Region	NVARCHAR	3
BillToPartyCountry	Bill To Party Country	NVARCHAR	3

Column Name	Column Label	Data Type	Length
FiscalYear	Fiscal Year	NVARCHAR	4
FiscalPeriod	Fiscal Period	NVARCHAR	3
BillingQuantity	Billing Quantity	DECIMAL	13
BillingQuantityInBaseUnit	Billing Quantity In Base Unit	DECIMAL	13
TaxAmount	Tax Amount	DECIMAL	13
ItemNetAmountOfBillingDoc	Item Net Amount Of Billing Document	DECIMAL	15
CostAmount	Cost Amount	DECIMAL	13
BillingDocumentItemCount	Billing Document Item Count	INTEGER	10

View sap.hba.ecc/FiscalCalendar

Fiscal period and fiscal year for valid posting dates using a fiscal year variant.

Column Name	Column Label	Data Type	Length
SAPClient	Client	NVARCHAR	3
FiscalYearVariant	Fiscal Year Variant	NVARCHAR	2
Date	Date	VARCHAR	8
FiscalYear	Fiscal Year	VARCHAR	4
FiscalPeriod	Fiscal Period	VARCHAR	3
FiscalYearPeriod	Fiscal Year Period	VARCHAR	7

View sap.hba.ecc/BillingDocumentCondition

Reuse view for billing document conditions.

Column Name	Column Label	Data Type	Length
SAPClient	Client	NVARCHAR	3
BillingDocument	Billing Document	NVARCHAR	10
BillingDocumentItem	Billing Document Item	NVARCHAR	6
ConditionType	Condition Type	NVARCHAR	4
TransactionCurrency	Transaction Currency	NVARCHAR	5
ConditionAmount	Condition Amount	DECIMAL	13

View sap.is.retail.car/ConditionTypeAssignToSubGroupAndMainGroup

Entry view providing Customizing data defining the condition type (from SAP ERP for Retail) to which the subgroup and main group are assigned in SAP Customer Activity Repository.

Column Name	Column Label	Data Type	Length
SAPClient	Client	NVARCHAR	3
ConditionType	Condition Type	NVARCHAR	4
ConditionTypeName	Condition Type Name	NVARCHAR	20
SubGroup	Sub Group	NVARCHAR	4

Column Name	Column Label	Data Type	Length
SubGroupName	Sub Group Name	NVARCHAR	40
MainGroup	Main Group	NVARCHAR	2

5 Multichannel Sales for Unified Demand Forecast

5.1 POS Aggregated Sales Data by Article Location

The views in this grouping are used to provide aggregated sales item data from the point-of-sale (POS) system. In addition, these views are reused in integration scenarios with Unified Demand Forecast (UDF), as they can be used to obtain sales data for use in demand planning. You can find detailed information about this VDM in the Application Help:

http://help.sap.com/saphelp_car100/helpdata/en/06/07225152157162e10000000a44538d/content.htm
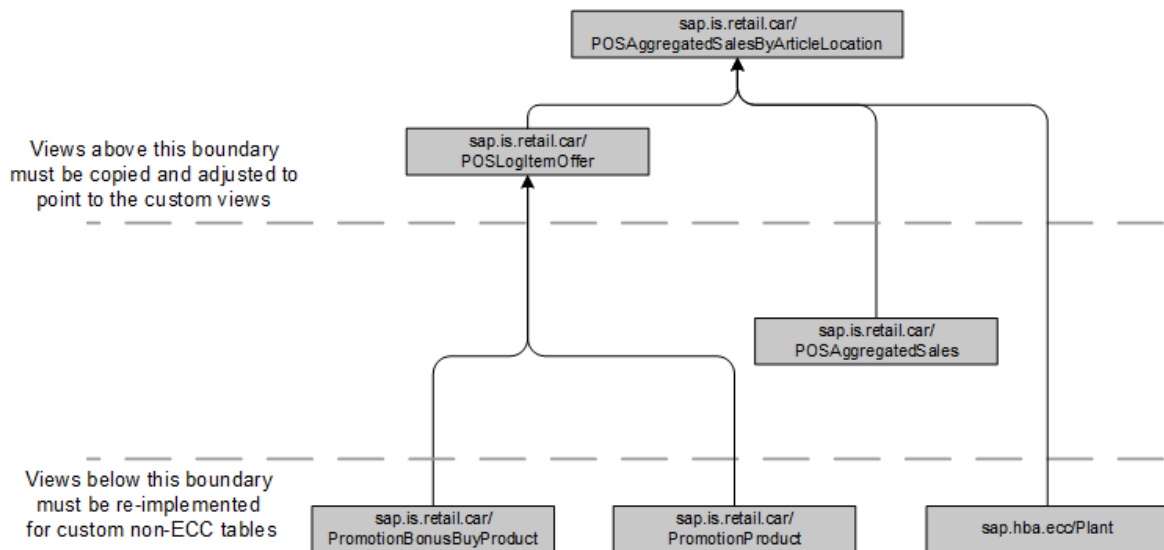
The figure above shows the high level structure of this virtual data model. The figure above shows the high level structure of this virtual data model. The main views of this virtual data model are as follows:

- sap.is.retail.car/POSAggregatedSalesByArticleLocation
- sap.is.retail.car/POSLogItemOffer

The POSAggregatedSalesByArticleLocation (package sap.is.retail.car) reuse view provides an entry view for aggregated sales from the POS system for Unified Demand Forecast.

The POSLogItemOffer (package sap.is.retail.car) reuse view provides an entry view determination of an offer for each POS Log Item. It is used to combine the offer ID with the output of the POSAggregatedSales view for the reporting of aggregated sales.

One possible approach to provide data from a third-party source ERP system is to re-implement the views below to read from third-party ERP tables:

View sap.hba.ecc/Plant

Reuse view for plant master data.

Column Name	Column Label	Data Type	Length
SAPClient	Client	NVARCHAR	3
Plant	Plant	NVARCHAR	4
SalesOrganization	Sales Organization	NVARCHAR	4
DistributionChannel	Distribution Channel	NVARCHAR	2

View sap.is.retail.car/PromotionBonusBuyProduct

Entry view for product bonus buy promotions for a given store.

Column Name	Column Label	Data Type	Length
SAPClient	Client	NVARCHAR	3
SalesOrganization	Sales Organization	NVARCHAR	4
DistributionChannel	Distribution Channel	NVARCHAR	2
Plant	Plant	NVARCHAR	4
BonusBuy	Bonus Buy	NVARCHAR	12
Material	Material	NVARCHAR	18
SalesUnit	Sales Unit	NVARCHAR	3
Promotion	Promotion	NVARCHAR	10
ValidityDateFrom	Validity Date From	NVARCHAR	8
ValidityDateTo	Validity Date To	NVARCHAR	8
Offer	Offer	NVARCHAR	36

View sap.is.retail.car/PromotionProduct

Reuse view for plant master data.

Column Name	Column Label	Data Type	Length
SAPClient	Client	NVARCHAR	3
SalesOrganization	Sales Organization	NVARCHAR	4
DistributionChannel	Distribution Channel	NVARCHAR	2
PlantCustomer	Plant Customer	NVARCHAR	10
Material	Material	NVARCHAR	18
SalesUnit	Sales Unit	NVARCHAR	3
Promotion	Promotion	NVARCHAR	10
ValidityDateFrom	Validity Date From	NVARCHAR	8
ValidityDateTo	Validity Date To	NVARCHAR	8
Offer	Offer ID	NVARCHAR	36

5.2 Sales Documents Aggregated by Article Location

The views within this grouping provide aggregated sales item data by article location from the sales documents in an SAP ERP system. In addition, these views are reused in integration scenarios with Unified Demand Forecast (UDF), as they can be used to obtain sales data for use in demand planning. You can find detailed information about this VDM in the Application Help:

http://help.sap.com/saphelp_car100/helpdata/en/b9/d365519c39e569e10000000a44538d/content.htm
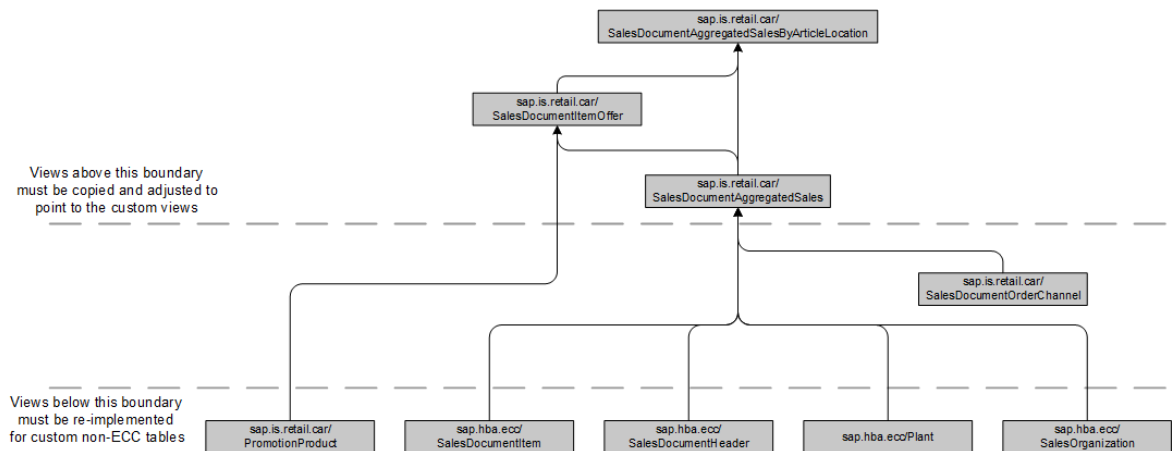
The figure above shows the high level structure of this virtual data model. The figure above shows the high level structure of this virtual data model. The main views of this virtual data model are as follows:

- sap.is.retail.car/SalesDocumentItemOffer
- sap.is.retail.car/SalesDocumentAggregatedSales

The SalesDocumentItemOffer (package sap.is.retail.car) reuse view provides an entry view on item-related offers in sales documents.

The SalesDocumentAggregatedSales (package sap.is.retail.car) reuse view provides an entry view on aggregated sales projections from SAP ERP for sales documents. It is comprised of the following reuse views and columns:

One possible approach to provide data from a third-party source ERP system is to re-implement the views below to read from third-party ERP tables:

View sap.is.retail.car/PromotionProduct

Reuse view for plant master data.

Column Name	Column Label	Data Type	Length
SAPClient	Client	NVARCHAR	3
SalesOrganization	Sales Organization	NVARCHAR	4
DistributionChannel	Distribution Channel	NVARCHAR	2
PlantCustomer	Plant Customer	NVARCHAR	10
Material	Material	NVARCHAR	18
SalesUnit	Sales Unit	NVARCHAR	3
Promotion	Promotion	NVARCHAR	10

Column Name	Column Label	Data Type	Length
ValidityDateFrom	Validity Date From	NVARCHAR	8
ValidityDateTo	Validity Date To	NVARCHAR	8
Offer	Offer	NVARCHAR	36
OrderValidityDateFrom	Order Validity Date From	NVARCHAR	8
OrderValidityDateTo	Order Validity Date To	NVARCHAR	8
UniqueKeyPosition	Unique Key Position	INTEGER	

View sap.hba.ecc/SalesDocumentItem

Reuse view for sales document items.

Column Name	Column Label	Data Type	Length
SAPClient	Client	NVARCHAR	3
SalesDocument	Sales Document	NVARCHAR	10
SalesDocumentItem	Sales Document Item	NVARCHAR	6
SDDocumentCategory	Sales Document – Document Category	NVARCHAR	1
SalesDocumentType	Sales Document Type	NVARCHAR	4
SalesDocumentDate	Sales Document Date	NVARCHAR	8
SalesOrganization	Sales Organization	NVARCHAR	4
DistributionChannel	Distribution Channel	NVARCHAR	2
CompanyCode	Company Code	NVARCHAR	4
TransactionCurrency	Transaction Currency	NVARCHAR	5
StatisticsCurrency	Statistics Currency	NVARCHAR	5
CreationDate	Creation Date	NVARCHAR	8
SalesDocumentItemType	Sales Document Item Type	NVARCHAR	1
SalesDocumentItemCategory	Sales Document Item Category	NVARCHAR	4
IsReturnItem	Is Return Item	NVARCHAR	1
Material	Material	NVARCHAR	18
BaseUnit	Base Unit	NVARCHAR	3
OrderQuantityUnit	Order Quantity Unit	NVARCHAR	3
OrderQuantityUnitDcmls	Order Quantity Unit Dcmls	SMALLINT	5
OrderToBaseQuantityNumrtr	Order To Base Quantity Numerator	DECIMAL	5
OrderToBaseQuantityDnmntr	Order To Base Quantity Denominator	DECIMAL	5
PricingDate	Pricing Date	NVARCHAR	8
ExchangeRateDate	Exchange Rate Date	NVARCHAR	8
ProductionPlant	Production Plant	NVARCHAR	4
BillingDocumentDate	Billing Document Date	NVARCHAR	8
RetailPromotion	Retail Promotion	NVARCHAR	10
ServicesRenderedDate	Services Rendered Date	NVARCHAR	8
OrderQuantity	Order Quantity	DECIMAL	15

Column Name	Column Label	Data Type	Length
NetAmount	Net Amount	DECIMAL	15
TaxAmount	Tax Amount	DECIMAL	13

View sap.hba.ecc/SalesDocumentHeader

Reuse view for sales document headers.

Column Name	Column Label	Data Type	Length
SAPClient	Client	NVARCHAR	3
SalesDocument	Sales Document	NVARCHAR	10

View sap.hba.ecc/Plant

Reuse view for plant master data.

Column Name	Column Label	Data Type	Length
SAPClient	Client	NVARCHAR	3
Plant	Plant	NVARCHAR	4
PlantCustomerNmbr	Plant Customer Number	NVARCHAR	10
SalesOrganization	Sales Organization	NVARCHAR	4

View sap.hba.ecc/SalesOrganization

Reuse view for sales organization master data.

Column Name	Column Label	Data Type	Length
SAPClient	Client	NVARCHAR	3
SalesOrganization	Sales Organization	NVARCHAR	4
CompanyCode	Company Code	NVARCHAR	4
CompanyCodeCurrency	Company Code Currency	NVARCHAR	5

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