

ADMINISTRATION GUIDE | PUBLIC

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SAP Allocation Management 4.0 FPS01 Administration Guide



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1 SAP Allocation Management, add-on for SAP Customer Activity Repository

Retail allocation is the process of assigning individual product quantities to eligible stores based on their sales performance and their potential in different stores. Retailers often centrally distribute merchandise among a large number of stores. SAP Allocation Management supports the selection of stores that have to receive merchandise and the determination of appropriate allocation quantities for these stores that covers the consumer demand for a given time period. SAP Allocation Management is based on SAP Customer Activity Repository as the foundation for integrated planning processes in retail.

Technically, SAP Allocation Management is delivered as part of the RTLAPPS software component of the installable product *SAP Customer Activity Repository applications bundle* SAP CARAB and as part of the UICAR001 software component of installable product SAP FIORI FOR SAP CARAB.

SAP Allocation Management **transactions** can be accessed via the SAP menu *Allocation Management* (/AMR/MENU) under SAP Menu Cross-Application Components Allocation Management.

You can access the SAP Allocation Management **Customizing** activities by calling up SAP Customizing Implementation Guide Cross-Application Components Allocation Management .

You can access the *Distribution Curve Configuration* **Customizing** activities in the *SAP Customizing Implementation Guide* under SAP Customer Activity Repository Demand Data Foundation Data *Maintenance*Maintenance

2 Getting Started

About This Document

This document is the central starting point for the implementation of SAP Allocation Management, add-on for SAP Customer Activity Repository. It contains security and operations information, and is divided into the following main sections:

- Introduction with references to related documents and relevant SAP Notes
- Security Information
- Operations Information
- Business Overview

i Note

You can find the most current version of this document on SAP Help Portal at http://help.sap.com/viewer/p/CARAB.

We strongly recommend that you use the document available there. The guide will be updated according to updates of the software.

Installation and Upgrade

For information on planning, installation, and upgrade, see the SAP Customer Activity Repository applications bundle *Common Installation Guide* or *Common Upgrade Guide*.

Useful Links

The following resources provide access to more information about general topics, such as software downloads, customer incidents, or high availability.

Resource	Where to Find It
SAP Notes search	http://support.sap.com/notes
Released platforms and technology-related topics such as maintenance strategies and language support	https://support.sap.com/en/release-upgrade-mainte-nance.html

Resource	Where to Find It
Product Availability Matrix	http://support.sap.com/pam
Early Knowledge Transfer	http://support.sap.com/ekt/
SAP Software Download Center (software download and ordering of software)	http://support.sap.com/swdc
Performance	https://www.sap.com/about/benchmark/sizing/perform-
	ance.html
Information about support package stacks, latest software versions, and patch level requirements	ance.html

3 Naming Conventions

Throughout this document, the following naming conventions apply.

Definitions

The following terms are used consistently in the processes and procedures described in this guide:

Term	Definition
back-end system	The SAP NetWeaver-based back-end server on which SAP Customer Activity Repository and its consuming applications (such as SAP Allocation Management are installed.
front-end server	The SAP NetWeaver-based front-end server on which the SAP Gateway, SAP Fiori launch-pad, SAP Fiori Central UI, and SAP Fiori product-specific components are installed.
Common Installation Guide CARAB	You can find these guides on SAP Help Portal at http://help.sap.com/viewer/p/CARAB under Installation and Upgrade
Common Upgrade Guide CARAB	

Naming Differences

Due to naming differences between the underlying technical objects of the components, the names of the following business objects are used interchangeably in this document:

SAP Customer Activity Repository	Demand Data Foundation (DDF) with Uni- fied Demand Forecast (UDF)	SAP Promotion Management	SAP Assortment Planning	SAP Merchandise Planning	SAP Allocation Management	SAP ERP
article	product location (specific product in a specific location)	product	product	product	product	article material

SAP Customer Activity Repository	Demand Data Foundation (DDF) with Uni- fied Demand Forecast (UDF)	SAP Promotion Management	SAP Assortment Planning	SAP Merchandise Planning	SAP Allocation Management	SAP ERP
article variant	product variant	product variant	product variant	product variant	product variant or product/ color/size	article variant
store	location	location	location	location	store	store
						site

4 Security Information

4.1 Why Is Security Important?

With the increasing use of distributed systems and the Internet for managing business data, the demands on security are also on the rise. When using a distributed system, you need to be sure that your data and processes support your business needs without allowing unauthorized access to critical information. User errors, negligence, or attempted manipulation of your system should not result in loss of information or processing time. These demands on security apply likewise to SAP Allocation Management. To assist you in securing SAP Allocation Management, we provide this security information.

Fundamental Security Guides

SAP Allocation Management is an add-on to SAP Customer Activity Repository. Therefore, the corresponding security information also applies to SAP Allocation Management. The most relevant sections or specific restrictions are indicated in the table:

Scenario, Application, or Component Security Guide	Most Relevant Sections or Specific Restrictions
SAP Customer Activity Repository Security Information	http://help.sap.com/viewer/p/CARAB under Administration SAP Customer Activity Repository Administration Guide Security Information
SAP NetWeaver Application Server ABAP Security Guide	http://help.sap.com/nw75 under Security SAP NetWeaver Security Guide Security Guides for SAP NetWeaver Functional Units Security Guides for the Application Server Security Guides for AS ABAP SAP NetWeaver Application Server for ABAP Security Guide
SAP HANA Security Guide	http://help.sap.com/hana under Security SAP HANA Security Guide
SAP Fiori for Business Suite	http://help.sap.com/businesssuite under SAP Fiori for SAP Business Suite SAP Fiori for SAP Business Suite 7 Innovations 2013 SAP Fiori Apps-Overview Transactional Apps and Fact Sheets Central Implementation Security

Scenario, Application, or Component Security Guide	Most Relevant Sections or Specific Restrictions		
SAP NetWeaver 7.5 Security Guide	To run SAP Allocation Management, you need SAP NetWeaver 7.5.		
	http://help.sap.com/nw75 under Security SAP		
	NetWeaver Security Guide		
Portal Security Guide	To run SAP Allocation Management, you need SAP NetWeaver 7.5.		
	http://help.sap.com/nw75 under Security SAP		
	NetWeaver Security Guide > Security Guides for SAP		
	NetWeaver Functional Units > Security Guides for Enterprise		
	Portal (EP) and EP Core - Application Portal (EPC) 🍃 Portal		
	Security Guide		
SAP NetWeaver Gateway Security Guide	http://help.sap.com/nwgateway		
SAP for Retail (Industry Solution)	http://help.sap.com/retail-erp605 under Security		
	Information SAP Service Marketplace SAP Security		
	Guide Industry Solution SAP for Retail SAP for Retail		
	Security Guide		

Important SAP Notes

Important SAP Notes that apply to the security of SAP Allocation Management are listed in the following table:

Title	SAP Note Number	Comment
SAP HANA 1.0: Security	https://launchpad.support.sap.com/#/notes/159623	Contains information and links to other notes related to the secure operation of SAP HANA
Authorization Check for Function Mod- ules in SAP Customer Activity Reposi- tory and SAP POS DM	https://launchpad.support.sap.com/#/notes/1940161	Contains information about authorization objects required to support integration scenarios involving systems connected to SAP Customer Activity Repository using RFC connections.

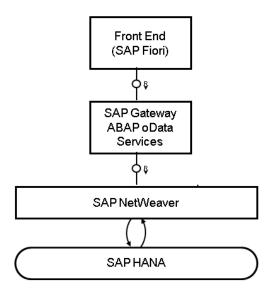
More Information

For more information about specific topics, see the quick links listed in the table below.

Content	Quick Link in SAP Marketplace or SCN		
Security	http://scn.sap.com/community/security		
Related SAP Notes	https://support.sap.com/en/offerings-programs/enterprise- support/enterprise-support-academy.html		
Released platforms	https://support.sap.com/en/release-upgrade-mainte- nance.html		
SAP Solution Manager	https://support.sap.com/en/solution-manager.html		
SAP NetWeaver	http://scn.sap.com/community/netweaver		

4.2 Security Aspects of Data, Data Flow, and Processes

The figure gives an overview of the data flow for SAP Allocation Management.



For more information about the technical system landscape, see the Common Installation Guide.

The table lists security aspects to be considered for the process steps and what mechanism applies.

Step	Description	Security Measure
Connect the browser to the SAP front-end server (SAP NetWeaver Gateway and UI add-on).	The user connects the browser via HTTPS to the SAP NetWeaver Gateway application server. This authenticates the server to ensure the correct certificates are being used. Once the server is authenticated, the information is shared to authenticate the user. This server points to application OData services.	 Transfer token Session cookies Semantic objects Transaction SICF Configuration
2. Connect the front-end server to SAP NetWeaver Gateway in the application server.	The SAP front-end server connects via a trusted RFC to the application server containing components to get required information that has been created as part of the installation and system setup.	 User authentication List of OData services and target system SM59 Transaction SICF Authority Object Application Customizing
3. Connect the application server to the SAP HANA database.	The application server connects to the SAP HANA database via a trusted RFC and gets the required information. This is created as part of the installation and system setup.	 Definition and implementation Application customizing RFC setup for trusted GW SSO SAP<sid> user default</sid>

4.3 User Administration and Authentication

User Management

User management for SAP Allocation Management uses the mechanisms provided with the SAP NetWeaver Application Server ABAP, for example, user types, and password policies. For an overview of how these mechanisms apply for SAP Allocation Management, see the sections below.

The SAP HANA Content for SAP Allocation Management uses the user management and authentication mechanisms provided with the SAP HANA Platform.

Similarly, other components of the technical system landscape for SAP Allocation Management, such as SAP ERP Central Component (ECC) and/or SAP S/4HANA, also use the mechanisms provided with the SAP NetWeaver AS ABAP. For an overview of how these mechanisms apply for SAP Allocation Management, see the sections below.

User Administration Tools

The table below shows the tools to use for user management and user administration with SAP Allocation Management.

Tool	Detailed Description	Prerequisites
User and role maintenance with SAP NetWeaver AS ABAP (Transactions SU01, PFCG)	AS ABAP Authorization Concept in the SAP NetWeaver Application Server ABAP Security Guide SAP NetWeaver on SAP Help Portal at http://help.sap.com/nw75 under Application Help, choose SAP NetWeaver Library: Function-Oriented View Solution Life Cycle Management Security and User Administration	The SAP NetWeaver 7.5 Application Server is running.

User Types

It is often necessary to specify different security policies for different types of users. For example, your policy may specify that individual users who perform tasks interactively must change their passwords on a regular basis, but not those users under which background processing jobs run. The user types that are required for SAP Allocation Management include:

- Individual users:
 - Dialog users are used for interactive system access, such as SAP GUI for Windows or SAP Fiori applications.
- Technical users:
 - o Communication users are used for dialog-free communication through RFC calls.
 - Background users are used for background processing and communication within the system, such as running scheduled inbound or outbound dispatcher jobs.

For more information about these user types, see User Types in the SAP NetWeaver AS ABAP Security Guide.

→ Recommendation

We recommend changing the user IDs and passwords for users that are automatically created during installation.

User Data Synchronization

The application does not deliver additional features related to user data synchronization in addition to those available as part of the SAP NetWeaver platform. It also does not impose any special needs or restrictions that would limit the usage of related SAP NetWeaver tools.

i Note

For any scenarios where system inter-connectedness at the user level is a requirement, it is mandatory that the same users exist throughout all the pertinent connected systems in the landscape.

Integration into Single Sign-On Environments

SAP Allocation Management supports the Single Sign-On (SSO) mechanisms provided by SAP NetWeaver AS ABAP. Therefore, the security recommendations and guidelines for user administration and authentication as described in the SAP NetWeaver Security Guide also apply to SAP Allocation Management.

For more information about the available authentication mechanisms, see *User Authentication and Single Sign-On* in the SAP NetWeaver Library.

4.4 Authorizations: Role and Authorization Concept

SAP Allocation Management uses the authorization concept provided by SAP NetWeaver AS ABAP. Therefore, the recommendations and guidelines for authorization as described in the SAP NetWeaver AS Security Guide ABAP also apply to SAP Allocation Management.

The SAP NetWeaver authorization concept is based on assigning authorizations to users based on roles. For role maintenance, use the profile generator (transaction PFCG) on the AS ABAP.

i Note

For more information about how to create roles, see *User Administration and Identity Management in ABAP Systems* available on SAP Help Portal at http://help.sap.com/nw75 Application Help SAP NetWeaver Library: Function-Oriented View Solution Life Cycle Management Security and User Administration.

4.4.1 Standard Roles

The SAP Allocation Management application requires a layered system landscape. As an allocator or allocation administrator, you must have the necessary users, roles and authorizations in all of the layers of the SAP Allocation Management application.

Front-end server

To use the collection of SAP Fiori apps that form the SAP Allocation Management application user interface, you must have a user on the SAP NetWeaver Gateway or the front-end server.

Back-end server

To access the relevant Customizing activities and use core SAP Allocation Management application functionality, you must have a user on the ABAP back-end server.

• SAP HANA Database

To allow the SAP Allocation Management application to access SAP HANA views and procedures, which provide access to data and functionality directly on the database level, you must have a user on the database level and back-end server. You must have a user for the back-end, especially if you are using SAP Fiori apps.

SAP HANA has implemented the regular SQL authorization concept based on privileges. For more information, see the product page for SAP HANA Live for SAP Business Suite available athttp://

help.sap.com. In the Administrator's Guide, go to Security Authorizations Privileges 1.

Role	Description	Layer
SAP_ISR_DDF_MASTER	Grants access to the following:	Back end
	Check Mass Maintenance	
	Configure Load Balancing	
	Define Area of Responsibility	
	Location Groups	
	Maintain Product Locations	
	Monitor compressed Data	
	Monitor Exceptions	
	Monitor Imports	
	Placeholder Products	
	 Products 	
	Product Groups	
	 Schedule Model and Forecasts 	
	Remove Time Series	
	 Search for Schedule Jobs 	
	 Search Placeholder Products 	
	Transportation Lanes	
SAP_AMR_BCR_ALLOCATOR_T	Grants access to the following SAP Fiori apps:	Front end
	My Allocation Workload	
	My Allocation Plans	
	Manage Market Units	
	Manage Allocation Parameters	
	Configure Distribution Curves	
	Configure Allocation KPIs	
	My Allocation Results	

4.4.2 Verify Users and Roles

- 1. Ensure that the user name of each individual allocator on the SAP HANA database level, back-end system, and on the front-end server (SAP NetWeaver Gateway) is identical on these three levels.
- 2. Ensure the required user settings on the SAP HANA database level. For a detailed description, refer to the corresponding section *Verify SAP HANA Users and Privileges* in the *Common Installation Guide* or in the *Common Upgrade Guide*.

- 3. Ensure that the allocator has all necessary roles and authorization objects assigned to their user on the back-end server. For a detailed description, refer to the corresponding section *Verify Back-End Users and Roles* in the *Common Installation Guide* or in the *Common Upgrade Guide*.
- 4. Ensure that all procedures in the front-end server are executed. Refer to section Assign Roles, Catalogs, and Groups in SAP Fiori [page 16] in this guide.

Related Information

Assign Roles, Catalogs, and Groups in SAP Fiori [page 16] Standard Authorization Objects [page 16]

4.4.3 Assign Roles, Catalogs, and Groups in SAP Fiori

To access SAP Fiori apps that constitute the SAP Allocation Management user interface from the SAP Fiori launchpad, your front-end server user must have the necessary roles assigned. Based on the roles assigned to your user, you can access certain business catalogs and business catalog groups. These include technical content as well as business content.

Front-End Server Business Content

Front-End Technical Content

Business Role	Business Catalog	Business Catalog Group	Technical Role	Technical Catalog
SAP_AMR_BCR_ALLOC ATOR_T	SAP_AMR_BC_ALLOCA TOR_T	SAP_AMR_BCG_ALLOC ATOR_T	SAP_AMR_TCR_T	SAP_AMR_TC_T

Procedure

- 1. Log on to your front-end system.
- 2. Launch User Maintenance (transaction SU01).
- 3. Enter your user name in the *User* field and choose *Change*.
- 4. On the Roles tab, assign the roles SAP AMR BCR ALLOCATOR T and SAP AMR TCR T to your user.

4.4.4 Standard Authorization Objects

When you use one of the SAP Allocation Management applications from your SAP Fiori launchpad, the application communicates with the SAP Customer Activity Repository applications bundle back-end server through the SAP NetWeaver Gateway. To allow this communication, the user names in the SAP NetWeaver

Gateway and the ABAP back-end system must match, and the ABAP back-end system user must also have all the required roles and authorization objects assigned.

This table shows the security-relevant authorization objects used by SAP Allocation Management.

Authorization Object	Authorization Object Description	Field	Field Description
/AMR/BE	Allocation Management Back End Processing	/AMR/ACTVTTCD	Allowed Back End ActivitiesTransaction Code
/DMF/DC_BE	Distribution Curve Configura- tion Authorization Object	/DCC/ACTVT	Allowed Back End Activities

4.5 Session Security Protection

To increase security and prevent access to the SAP logon ticket and security session cookies, we recommend activating secure session management. We also highly recommend using SSL to protect the network communications where these security-relevant cookies are transferred.

ABAP Server Session Security

For the ABAP front-end server, you must activate HTTP security session management by using the transaction <code>SICF_SESSIONS</code>. When you activate HTTP security session management, we recommend that you activate the following extra protection for security-related cookies:

- HttpOnly
 - This attribute instructs the browser to deny access to the cookie through client side script. As a result, even if a cross-site scripting (XSS) flaw exists and a user accidentally accesses a link that exploits this flaw, the browser will not reveal the cookie to a third party.
- Secure
 - This attribute instructs the browser to send the cookie only if the request is being sent over a secure channel such as HTTPS. This helps protect the cookie from being passed over unencrypted requests.

→ Recommendation

It is recommended that you configure the HTTP session expiration with a reasonable timeout of between 10 minutes to 1 hour. To configure this, you use the profile parameter $http/security_session_timeout$.

4.6 Network and Communication Security

Your network infrastructure is extremely important in protecting your system. Your network needs to support the communication necessary for your business needs without allowing unauthorized access. A well-defined network topology can eliminate many security threats based on software flaws (at both the operating system level and application level) or network attacks such as eavesdropping. If users cannot log on to your application or database servers at the operating system or database layer, then there is no way for intruders to compromise the machines and gain access to the back-end system's database or files. Additionally, if users are not able to connect to the server LAN (local area network), they cannot exploit well-known bugs and security holes in network services on the server machines.

The network topology for SAP Allocation Management is based on the topology used by the SAP NetWeaver platform. Therefore, the security guidelines and recommendations described in the SAP NetWeaver Security Guide also apply to SAP Allocation Management.

Communication Channel Security

The table shows the communication paths used by SAP Allocation Management, the protocol used for the connection, and the type of data transferred.

Communication Path	Protocol Used	Type of Data Transferred	Data Requiring Special Protection
Front-end client using SAP Fiori to SAP NetWeaver Gate- way application server	HTTPS	Login information data	Password
Front-end client using SAP Fiori to application Server	HTTPS	All application data	Transactional data
Application server to application server	RFC	Application data	System information, personal data, and transactional data

DIAG and RFC connections can be protected using Secure Network Communications (SNC). HTTP connections are protected using the Secure Sockets Layer (SSL) protocol. SOAP connections are protected with Web services security.

→ Recommendation

We strongly recommend using secure protocols (SSL, SNC) whenever possible.

For more information, see *Transport Layer Security* and *Web Services Security* in the *SAP NetWeaver Security Guide*.

Network Security

The network topology for SAP Allocation Management is based on the topology used by the SAP NetWeaver platform. Therefore, refer to the following documentation for information on network security:

- SAP NetWeaver 7.5
- SAP Customer Activity Repository Administration Guide

Ports

SAP Allocation Management runs on SAP NetWeaver and uses the ports from the AS ABAP. For more information, see the topics for *AS ABAP Ports* in the corresponding *SAP NetWeaver Application Server ABAP Security Guide*. For other components, for example, SAPinst, SAProuter, or the SAP Web Dispatcher, see also the document *TCP/IP Ports Used by SAP Applications*, which is located on SAP Community Network (SCN) at http://scn.sap.com/community/security // Infrastructure Security // Network and Communication Security // .

Communication Destinations

The table gives an overview of the communication destinations used by SAP Allocation Management:

Destination	Туре	User, Authorizations	Description
SAP ERP or S/4HANA Retail	Trusted RFC Connection	Standard RFC user configuration	Connecting SAP ERP System for DRFOUT, SLT and create entries in the allocation table
SAP Fiori Front-End Server	Trusted RFC Connection	Standard RFC user configuration	Connecting SAP Fiori Server, so that SAP Allocation Management OData services can be accessed.

4.7 OData Services

Use

A number of OData services are required to run the SAP Allocation Management application. For security reasons, all OData services are delivered in an inactive state. You must **activate** these application-specific

OData services to use the SAP Fiori user interface of SAP Allocation Management. The following OData services are available:

Service Name	Description
/AMR/OD_ALLOCATIONPLAN_SRV	OData service for My Allocation Plans
/AMR/OD_COMMON_SRV	Common OData service used by multiple apps
/AMR/OD_MARKETUNIT_SRV	OData service for Manage Market Units
/AMR/OD_PARAM_SRV	OData service for Manage Allocation Parameters
/AMR/OD_WORKLOAD_SRV	OData service for My Allocation Workload
/DMF/DIST_CURVE_SRV	OData service for Configure Distribution Curves
/AMR/OD_PRODUCT_FLOW_SRV	OData service for <i>Product Flow</i>
/AMR/OD_KPI_CONFIG_SRV	OData service for Configure Allocation KPIs
/AMR/OD_ALLOCATIONRESULT_SRV	OData service for My Allocation Results
/AMR/OD_BASKET_SRV	OData service for Allocation Basket
/AMR/OD_ALLOCATIONPLAN_SEARCH_SRV	OData service for Allocation Plan Search

More Information

For more information on activating these services, see the section *Activate OData Services* in the *Common Installation Guide*.

i Note

There are two obsolete OData services in the /AMR/ namespace. They cannot be activated in the current release of SAP Allocation Management. They only exist for compatibility reasons, their successors have an additional OD_i in the technical names:

- /AMR/WORKLOAD_SRV replaced by /AMR/OD_WORKLOAD_SRV
- /AMR/ALLOCATIONPLAN SRV replaced by /AMR/OD ALLOCATIONPLAN SRV

If you accidentally try to activate them you will get error messages. Please ignore these. This does not impair the functionality.

4.8 Internet Communication Framework Security

For security reasons, all Internet Communication Framework (ICF) services relevant to your SAP Allocation Management application are made available in an inactive state. You should only activate those services that are needed for the applications running in your system. For SAP Allocation Management, the following services are needed:

- /sap/bc/ui5_ui5/sap/amr_alloplan
- /sap/bc/ui5_ui5/sap/amr_allo_params
- /sap/bc/ui5_ui5/sap/amr_dist_config
- /sap/bc/ui5_ui5/sap/amr_lib_reuse
- /sap/bc/ui5_ui5/sap/amr_marketunit
- /sap/bc/ui5_ui5/sap/amr_workload
- /sap/bc/ui5_ui5/sap/amr_kpiconfig
- /sap/bc/ui5_ui5/sap/amr_result

Use the transaction SICF to activate these services. If your firewall(s) use URL filtering, also note the URLs used for the services and adjust your firewall settings accordingly.

For more information on activating these services, see the *Activate SAP Allocation Management ICF Services* section in the *Common Installation Guide*.

For more information, see *Activating and Deactivating ICF Services* in the *SAP NetWeaver Library* documentation.

For more information about ICF security, see the RFC/ICF Security Guide within the Security Guides for Connectivity and Interoperability Technologies in the SAP NetWeaver Security Guide.

4.9 Data Storage

SAP Allocation Management saves data in the SAP HANA database of the SAP system. It relies on the underlying security features available in SAP HANA for data protection.

For more information, see http://help.sap.com/hana_platform.

4.10 Data Protection and Privacy

Introduction [page 22]

Glossary [page 23]

Deletion of Personal Data [page 26]

4.10.1 Introduction

Data protection is associated with numerous legal requirements and privacy concerns. In addition to compliance with general data protection and privacy acts, it is necessary to consider compliance with industry-specific legislation in different countries. SAP provides specific features and functions to support compliance with regard to relevant legal requirements, including data protection. SAP does not give any advice on whether these features and functions are the best method to support company, industry, regional, or country-specific requirements. Furthermore, this information should not be taken as advice or a recommendation regarding additional features that would be required in specific IT environments. Decisions related to data protection must be made on a case-by-case basis, taking into consideration the given system landscape and the applicable legal requirements.

i Note

SAP does not provide legal advice in any form. SAP software supports data protection compliance by providing security features and specific data protection-relevant functions, such as simplified blocking and deletion of personal data. In many cases, compliance with applicable data protection and privacy laws will not be covered by a product feature. Definitions and other terms used in this document are not taken from a particular legal source.

The extent to which data protection is supported by technical means depends on secure system operation. Network security, security note implementation, adequate logging of system changes, and appropriate usage of the system are the basic technical requirements for compliance with data privacy legislation and other legislation.

i Note

Data protection and privacy-related functionality has been implemented in the Demand Data Foundation (DDF) module in SAP Customer Activity Repository. DDF includes a reusable data layer that supports the planning, analysis, and forecasting required by different business processes. DDF acts as a liaison between the consuming application installed on top of and the SAP Customer Activity Repository modules within the repository that provide these business processes.

For more information, see the *Data Protection and Privacy* section of the *SAP Customer Activity Repository Administration Guide* under https://help.sap.com/viewer/p/CARAB *Version 3.0 FP2 (and higher) Administration* .

Generic Fields

You need to make sure that no personal data enters the system in an uncontrolled or non-purpose related way, for example, in free-text fields, through APIs, or customer extensions. Note that these are not subject to the read access logging (RAL) example configuration.

Parent topic: Data Protection and Privacy [page 21]

Related Information

Glossary [page 23]
Deletion of Personal Data [page 26]

4.10.2 Glossary

The following terms are general to SAP products. Not all terms may be relevant for this SAP product.

Term	Definition
Blocking	A method of restricting access to data for which the primary business purpose has ended.
Business Purpose	The legal, contractual, or in other form justified reason for the processing of personal data to complete an end-to-end business process. The personal data used to complete the process is predefined in a purpose, which is defined by the data controller. The process must be defined before the personal data required to fulfill the purpose can be determined.
Consent	The action of the data subject confirming that the usage of his or her personal data shall be allowed for a given purpose. A consent functionality allows the storage of a consent record in relation to a specific purpose and shows if a data subject has granted, withdrawn, or denied consent.
Data Subject	Any information relating to an identified or identifiable natural person ("data subject"). An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier, or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural, or social identity of that natural person.
Deletion	Deletion of personal data so that the data is no longer available.
End of business	Defines the end of active business and the start of residence time and retention period.

Term	Definition
End of Purpose (EoP)	The point in time when the processing of a set of personal data is no longer required for the primary business purpose, for example, when a contract is fulfilled. After the EoP has been reached, the data is blocked and can only be accessed by users with special authorizations (for example, tax auditors).
End of Purpose (EoP) check	A method of identifying the point in time for a data set when the processing of personal data is no longer required for the primary business purpose . After the EoP has been reached, the data is blocked and can only be accessed by users with special authorization, for example, tax auditors.
Personal Data	Any information relating to an identified or identifiable natural person ("data subject"). An identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier, or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural, or social identity of that natural person.
Purpose	The information that specifies the reason and the goal for the processing of a specific set of personal data. As a rule, the purpose references the relevant legal basis for the proc- essing of personal data.
Residence Period	The period of time between the end of business and the end of purpose (EoP) for a data set during which the data remains in the database and can be used in case of subsequent processes related to the original purpose. At the end of the longest configured residence period, the data is blocked or deleted. The residence period is part of the overall retention period.
Retention Period	The period of time between the end of the last business activity involving a specific object (for example, a business partner) and the deletion of the corresponding data, subject to applicable laws. The retention period is a combination of the residence period and the blocking period.

Sensitive Personal Data	A category of personal data that usually includes the following type of information:
	 Special categories of personal data, such as data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, trade union membership, genetic data, biometric data, data concerning health or sex life or sexual orientation. Personal data subject to professional secrecy
	 Personal data relating to criminal or administrative of- fenses
	 Personal data concerning insurances and bank or credit card accounts
Technical and Organizational Measures (TOM)	Some basic requirements that support data protection and privacy are often referred to as technical and organizational measures (TOM). The following topics are related to data protection and privacy and require appropriate TOMs, for example:
	 Access control Authentication features Authorizations Authorization concept Read access logging Transmission control/communication security
	 Input control/change logging Availability control Separation by purpose Subject to the organizational model implemented and must be applied as part of the authorization concept.

Definition

Parent topic: Data Protection and Privacy [page 21]

Related Information

Term

Introduction [page 22]
Deletion of Personal Data [page 26]

4.10.3 Deletion of Personal Data

Simplified Blocking and Deletion

When considering compliance with data protection regulations, it is also necessary to consider compliance with industry-specific legislation in different countries. A typical potential scenario in certain countries is that personal data shall be deleted after the specified, explicit, and legitimate purpose for the processing of personal data has ended, but only as long as no other retention periods are defined in legislation, for example, retention periods for financial documents. Legal requirements in certain scenarios or countries also often require blocking of data in cases where the specified, explicit, and legitimate purposes for the processing of this data have ended, however, the data still has to be retained in the database due to other legally mandated retention periods. In some scenarios, personal data also includes referenced data. Therefore, the challenge for deletion and blocking is first to handle referenced data and finally other data, such as business partner data.

Deletion of Personal Data

The processing of personal data is subject to applicable laws related to the deletion of this data when the specified, explicit, and legitimate purpose for processing this personal data has expired. If there is no longer a legitimate purpose that requires the retention and use of personal data, it must be deleted. When deleting data in a data set, all referenced objects related to that data set must be deleted as well. Industry-specific legislation in different countries also needs to be taken into consideration in addition to general data protection laws. After the expiration of the longest retention period, the data must be deleted.

SAP Allocation Management might process data (personal data) that is subject to the data protection laws applicable in specific countries as described in SAP Note 1825544. For information, see the SAP Customer Activity Repository Administration Guide Security Information Data Protection and Privacy Deletion of Personal Data Expected Behavior Within Demand Data Foundation (DDF).

Deletion of Data Specific to SAP Allocation Management

Anonymization of Business Partner of Type Vendor

SAP Allocation Management uses vendor information, which is replicated to the Demand Data Foundation (DDF) module from a source SAP ERP (SAP Retail and SAP Fashion Management) or SAP S/4HANA Retail system. If data for a business partner of type vendor is blocked in the source master data system, this blocking information is also carried through to DDF during the replication. An implementation of BAdl *Notification of Anonymization of a Business Partner* (/DMF/BP_OBFUSCATION_NOTIF) is called during the DRFOUT data replication, to update the DDF tables by anonymizing the ID and name of a customer or vendor.

→ Remember

- Verify that business partner ID blocking is enabled in the Customizing. In transaction SPRO, navigate to
 Cross-Application Components Demand Data Foundation Data Maintenance Data Protection and Privacy
- Verify that the replicated vendor data is marked as blocked after SLT replication (SAP Landscape Transformation replication).

Once the blocking information for a vendor is transferred to SAP Allocation Management, you can anonymize (that is, overwrite) the blocked vendors in the data access layer tables of SAP Allocation Management. Execute transaction *Business Partner Anonymization* (/AMR/ANONYMIZE_BP). Automatically, all vendors with the blocking information are selected and the vendor ID is overwritten with the anonymization entry. The result of the anonymization run is displayed as application log information about how many vendors have been anonymized.

i Note

The recommended sequence for anonymization of business partner vendor is the following:

- 1. Execute transaction *Preselection for Data Access Layer* (/AMR/DAL_FILL) to ensure that the most current data is available in data access layer tables.
- 2. Execute transaction *Business Partner Anonymization* (/AMR/ANONYMIZE_BP) to anonymize vendor information in all data access layer tables.
- 3. Execute transaction *Preselection* (/AMR/PRECALC) to preselect the already anonymized data for allocation processing.

User Anonymization

In SAP Allocation Management, allocators create and change objects like market units, allocation plans, or allocation parameters. The allocation user information is stored and displayed in the SAP Fiori apps as *Created by*, *Changed by*, or *Assigned to* information. Furthermore, the allocator is also displayed in the *Responsibilities* screen area in the app *Manage Market Units*. If an allocator is to be anonymized, run program *Anonymize User from AM Tables* (/AMR/ANONYMIZE USER).

i Note

The user to be anonymized must not be logged on and must be locked.

To anonymize (that is, overwrite) the user in all tables of SAP Allocation Management, execute transaction *Anonymize AM Users* (/AMR/ANONYMIZE_USER). Enter the user name, which is to be overwritten with the anonymization entry. The corresponding report removes the specified user from all the administration fields of all SAP Allocation Management tables completely, as well as from the list of allocators in a market unit. It replaces the user name with a generic user name that cannot be traced back to the original personal user. Log messages display the successful anonymization for each document or a warning, in case of locking issues.

i Note

Since all SAP Allocation Management tables are anonymized, it is possible that other users are working on some documents when this report is run. If a document that contains the user to be anonymized is currently being locked by some other user, then a warning message is displayed and the document is skipped. Therefore, you may have to execute this transaction several times to completely remove the specified user name from all SAP Allocation Management tables.

Follow-on Activities: Deletion of Data

After the successful anonymization of a user or vendor, the system objects created by or for the now anonymized user or vendor can be deleted. Use the reorganization functionality provided by SAP Allocation Management to delete these objects or documents physically from the database. You can find transactions to delete related system objects, for example, transaction *Delete Workloads, Allocation Plans, and Allocation Life Cycles* (/AMR/WL_ALLO_REORG) in the *SAP Menu* under Cross-Application Components Allocation Management Allocation Reorganization .

Make sure that you delete additional system data collected for the anonymized user, such as application log entries, exception monitor entries, or job log information. You can do this in the associated standard tools and transactions.

i Note

In case a now anonymized system user or vendor name was used in free text system object descriptions, you must identify and delete these objects manually. Examples for such free text system object descriptions are allocation plan descriptions, market unit descriptions, or KPI descriptions.

For general information on SAP Customer Activity Repository Data Protection and Privacy, refer to the Security Information section in the SAP Customer Activity Repository Administration Guide under https://help.sap.com/viewer/p/CARAB \(\) 2.0 SPS3 or higher \(\) Administration \(\).

Parent topic: Data Protection and Privacy [page 21]

Related Information

Introduction [page 22]
Glossary [page 23]
Data Protection and Privacy
Deletion of SAP Allocation Management Objects [page 44]
Deletion of Drafts [page 45]

4.11 Enterprise Services Security

The following sections in the SAP NetWeaver Security Guide and documentation are relevant for all enterprise services delivered with SAP Allocation Management.

- Web Services Security
- Recommended WS Security Scenarios
- SAP NetWeaver Process Integration Security Guide

4.12 Security-Relevant Logging and Tracing

SAP Allocation Management does not provide additional security logging and tracing in addition to those available within SAP NetWeaver. For more information on:

- Logging and tracing for ABAP, see http://help.sap.com
 SAP NetWeaver Library
 Administrator's
 Guide
 SAP NetWeaver Security Guide
 Security Aspects for System Management
 Auditing and Logging
- Logging and tracing for NetWeaver Business Client, see http://help.sap.com
 SAP NetWeaver Library
 Administrator's Guide
 SAP NetWeaver Security Guide
 Security Guides for SAP NetWeaver According to
 Usage Types
 Security Guides for Usage Types EPC and EP
 Portal Security Guide
 Logging and Tracing
 Identity Management
 User Management of the Application Server Java
 Troubleshooting
 Logging
 and Tracing
- Logging and tracing for Customizing changes, use the SCU3 transaction to activate the logging of changes to the table data.

4.13 Services for Security Lifecycle Management

The following services are available from Active Global Support to assist you in maintaining security in your SAP systems on an ongoing basis.

Security Chapter in the Early Watch Alert (EWA) Report

This service regularly monitors the Security chapter in the EarlyWatch Alert report of your system. It tells you:

- Whether SAP Security Notes have been identified as missing on your system.
 In this case, analyze and implement the identified SAP Notes if possible. If you cannot implement the SAP Notes, the report should be able to help you decide on how to handle the individual cases.
- Whether an accumulation of critical basis authorizations has been identified.
 In this case, verify whether the accumulation of critical basis authorizations is okay for your system. If not, correct the situation. If you consider the situation okay, you should still check for any significant changes compared to former EWA reports.
- Whether standard users with default passwords have been identified on your system. In this case, change the corresponding passwords to non-default values.

Security Optimization Service (SOS)

The Security Optimization Service can be used for a more thorough security analysis of your system, including:

- Critical authorizations in detail
- Security-relevant configuration parameters
- Critical users
- Missing security patches

This service is available as a self-service within SAP Solution Manager, as a remote service, or as an on-site service. We recommend you use it regularly (for example, once a year) and in particular after significant system changes or in preparation for a system audit.

Security Configuration Validation

The Security Configuration Validation can be used to continuously monitor a system landscape for compliance with predefined settings, for example, from your company-specific SAP Security Policy. This primarily covers configuration parameters, but it also covers critical security properties like the existence of a non-trivial Gateway configuration or making sure standard users do not have default passwords.

Security in the RunSAP Methodology / Secure Operations Standard

With the E2E Solution Operations Standard Security service, a best practice recommendation is available on how to operate SAP systems and landscapes in a secure manner. It guides you through the most important security operation areas and links to detailed security information from SAP's knowledge base wherever appropriate.

More Information

For more information about these services, see:

- EarlyWatch Alert: http://support.sap.com/eware
- Security Optimization Service / Security Notes Report: http://support.sap.com/sos/
- Comprehensive list of Security Notes: http://support.sap.com/securitynotes/

5 Operations Information

Monitoring [page 31]

Monitoring is an essential task in managing SAP Technology. Monitoring allows you to detect any irregularities or deviations from the ideal business process flow. It also allows you to detect error situations concerning core business processes at an early stage.

Administration and Management [page 36]

SAP provides you with an infrastructure to help your technical support consultants and system administrators effectively manage all SAP components and complete all tasks related to technical administration and operation.

High Availability [page 47]

Software Change Management [page 47]

Software Change Management standardizes and automates software distribution, maintenance, and testing procedures for complex software landscapes and multiple software development platforms. These functions support your project teams, development teams, and application support teams.

Support Desk Management [page 49]

Troubleshooting [page 50]

5.1 Monitoring

Monitoring is an essential task in managing SAP Technology. Monitoring allows you to detect any irregularities or deviations from the ideal business process flow. It also allows you to detect error situations concerning core business processes at an early stage.

SAP Allocation Management uses frameworks developed in Demand Data Foundation (DDF) for its monitoring purposes as most of the master data and transaction data comes from DDF.

SAP Allocation Management does not have any specific monitoring implemented unless specified in this guide. Demand Data Foundation (DDF) internally uses the SAP NetWeaver standard functionality for monitoring. For more information about this functionality, see the operations guides for SAP NetWeaver on SAP Help Portal at http://help.sap.com/nw75. For more information, see also the *Administration Guide* for SAP Customer Activity Repository available at http://help.sap.com/viewer/p/CARAB.

Detailed Monitoring [page 32]

Monitoring Exceptions [page 33]

Parent topic: Operations Information [page 31]

Related Information

Administration and Management [page 36] High Availability [page 47] Software Change Management [page 47] Support Desk Management [page 49] Troubleshooting [page 50]

5.1.1 Detailed Monitoring

Alert Monitoring

SAP provides you with the infrastructure and recommendations to set up your alert monitor in such a way that critical situations are identified as quickly as possible.

Component-Specific Monitoring

Specific CCMS monitoring for SAP Allocation Management is not available.

SAP Allocation Management does not provide any specific capabilities regarding **system performance monitoring**, which is covered by the standard tools.

Application Log Monitoring

The application log function collects messages, exceptions, and errors and displays them in a log. You can call up the log using transaction *Analyze Application Log* SLG1. The log provides you with the following:

- Basic header information on the events that have occurred
- Event details
- Technical information
- Message short and long texts

The following functionality in SAP Allocation Management uses the application log function with Object /AMR/:

Functionality	Log Subobject
Interface for Assortment Planning	/AMR/APR_IF
Automatic Allocation	/AMR/AUTO
Data Access Layer Fill	/AMR/DAL_FILL
SAP HANA Content Deployment	/AMR/DEPLOY
DPP	/AMR/DPP

Functionality	Log Subobject
Event Interface	/AMR/EVT_IF
Exceptional Fill-In	/AMR/EXTRA
KPI Calculation	/AMR/KPICALC
KPI Transposition	/AMR/KPITRANS
Migration	/AMR/MIG
Preselection	/AMR/PRECAL
Deletion	/AMR/REORG
Creation of Dummy Tables	/AMR/SLT
Transfer Allocation Plans	/AMR/TRANS
Model - Forecast - Hierarchical Priors - Report	/AMR/UDF

For more information about the application log function, see SAP NetWeaver at http://help.sap.com/nw . Choose a release. Under Application Help, choose Function-Oriented View SAP NetWeaver Library:

Function-Oriented View Application Server Application Server Application Server ABAP Other Services Services for Business Users Application Log - User Guidelines (BC-SRV-BAL)

Parent topic: Monitoring [page 31]

Related Information

Monitoring Exceptions [page 33]

5.1.2 Monitoring Exceptions

SAP Allocation Management uses the Web Dynpro application / DMF/WDA_UI_EEM_QAT (Monitor Exceptions) from development package / DMF/CA_EEM_UI for monitoring of any kind of exceptions persisted on the database (associated configuration / DMF/DMF_APP_CFG_CA_EEM_UI or, alternatively, / DMF/DMF_APP_CFG_EEM_UI).

Such exceptions are raised for:

- Calculations for allocation plans
- Processing of automatic allocation (report / AMR/AUTO ALLOC Allocation Automation)

- Processing of the transfer of allocation plans from SAP Allocation Management to the connected SAP
 Retail or SAP Fashion Management system (report /AMR/TRANSFER_ALLO_PLANS Transfer Allocation
 Plans)
- Allocation deletions (report /AMR/WL_ALLOPLAN_REORG) Delete Workloads, Allocation Plans, and Allocation Life Cycles
- Allocation preselection and caching (report /AMR/PRECALCULATION Execute Preselection)
- KPI calculation (report / AMR/KPI CALCULATION) Execute KPI Calculation Engine

The list of exceptions and messages, including the technical messages relevant for the system administration, are available in the exception management. The monitor exceptions function is available via the Demand Data Foundation (DDF) module in SAP Customer Activity Repository and has been enhanced for SAP Allocation Management.

All SAP Allocation Management exceptions are assigned to generating process 10 Allocation Management.

Exceptions relevant for SAP Allocation Management are assigned to application areas /AMR/* and /DMF/DCE.

New business areas have been introduced for SAP Allocation Management exceptions. These can be used in Customizing and as selection criteria in the Web Dynpro application *Monitor Exceptions* (/DMF/WDA_UI_EEM_QAT):

Business Area Description	Business Area
Allocation Automation	31
Allocation Transfer	32
Allocation Reorg	33
Allocation Precalculation	34
Allocation Workload UI	41
Allocation Plan UI	42
KPI Calculation	51

You define the relevant settings for exception monitoring for SAP Allocation Management in Customizing for SAP Customer Activity Repository under Demand Data Foundation Basic Settings Exception

Management Maintain Configuration Data for High Level Exceptions.

The following settings control the processing of messages for SAP Allocation Management and can be changed in the Customizing activity *Maintain Configuration Data for High Level Exceptions*:

Default Priority

You can maintain your own customer-specific priority for an exception.

Validity

With this setting you specify how long exceptions remain in the system (in days) at the most before they can be deleted by the purging report (transaction / DMF/PURGE EWB MSG).

• Assignment Business Area

You define the specific business processes (business areas) for which an exception is relevant. You can assign one or several areas to one exception. For example, you have assigned business areas *Allocation*

Workload UI and Allocation Automation to an exception. This exception is then displayed in the workload user interface and can be selected in the Monitor Exceptions application. Due to the business area assignment, this exception is not displayed in the plan user interface.

Do not change the exception category (field *Excp Cat.*) of the exceptions. SAP Allocation Management only processes exceptions that have the category *H High Level Exceptions*.

Do not delete exceptions from the Customizing table. If an entry is deleted, the exception is no longer visible in SAP Allocation Management, neither in the *Monitor Exceptions* application nor in the user interfaces.

All other settings provided in this Customizing activity, such as distribution center or store-related settings, are not relevant for SAP Allocation Management.

SAP Fiori and SAP Gateway Monitoring

SAP Allocation Management uses standard SAP Gateway Monitoring tools for monitoring the SAP Fiori applications and OData services.

For more information about monitoring SAP Fiori apps, see SAP Help Portal at http://help.sap.com/fiori_implementation. Choose SAP Fiori: Operations.

For more information about monitoring OData services, see the *Technical Operations Guide* for SAP Gateway on SAP Help Portal at http://help.sap.com/>

SAP HANA Monitoring

SAP Allocation Management uses standard SAP HANA Monitoring tools for monitoring SAP HANA. For more information, see the *SAP HANA Administration Guide* at http://help.sap.com/hana_platform/>
**System Administration **SAP HANA Technical Operations Manual **

Technical Operations

**Administration **

Technical Operations

Data Consistency

SAP Allocation Management provides no specific functionality to ensure data consistency but uses the infrastructure of SAP Customer Activity Repository.

Parent topic: Monitoring [page 31]

Related Information

Detailed Monitoring [page 32]

5.2 Administration and Management

SAP provides you with an infrastructure to help your technical support consultants and system administrators effectively manage all SAP components and complete all tasks related to technical administration and operation.

Starting and Stopping

Action and Component	Sequence	Tool	Detailed Description
Start SAP HANA database	1	sapstartsrv	See the information about starting and stopping SAP HANA systems in the SAP HANA Administration Guide.
Start SAP Systems and In- 2 stances	2	STARTSAP(for UNIX)	See the information about starting and stopping SAP systems based on SAP Net-Weaver at http://help.sap.com/nw75 under
			Application Help SAP NetWeaver Library: Function-
			Oriented View > Solution Life
			Cycle Management Starting and Stopping SAP Systems Based on SAP
			NetWeaver \(\).

Action and Component	Sequence	Tool	Detailed Description
Start SAP LT Replication Server (Optional)	3	SAP HANA studio	Use SAP HANA studio to start replication of tables required by SAP Allocation Management.
			See http://help.sap.com/
			viewer/p/CARAB < Your
			version> Installation and
			Upgrade > Common
			Installation Guide > Post-
			Installation > SAP Allocation
			Management > Configure
			Data Replication for information on configuring data replication for SAP Allocation Management.
Stop SAP LT Replication Server (Optional)	4	SAP HANA studio	Use SAP HANA studio to stop replication of tables re- quired by SAP Allocation Management.
Stop SAP Systems and Instances	5	STOPSAP(for UNIX)	See the information about starting and stopping SAP systems based on SAP Net-Weaver at http://help.sap.com/nw75 under
			Application Help SAP NetWeaver Library: Function-
			Oriented View Solution Life
			Cycle Management > Starting and Stopping SAP Systems Based on SAP
			NetWeaver .
Stop SAP HANA database	6	sapstartsrv	See the information about starting and stopping SAP HANA systems in the SAP HANA Administration Guide.

Administration Tools

There is no specific administration tool for SAP Allocation Management.

SAP Allocation Management also uses the administration tools available with SAP HANA. For more information, see SAP Help Portal for SAP HANA platform at http://help.sap.com/hana_platform. Choose **Administration** **SAP HANA Administration Guide **1.

Backup and Restore

You must back up your system landscape regularly to ensure that you can restore and recover it in case of failure. The backup and restore strategy of your system landscape must not only include your strategy for your SAP system, but it must also be included in your company's overall business requirements and incorporated into your entire process flow.

In addition, the backup and restore strategy must cover disaster recovery processes, such as how to recover from the loss of a data center due to a fire. It is important that your strategy specifies that normal data and backup data are stored in separate physical locations, so that both types of data are not lost in case of a disaster. SAP Allocation Management is based on SAP NetWeaver technology; therefore, the SAP NetWeaver backup procedures can also be used for SAP Allocation Management.

Subject	Path
Backup and recovery processes for ABAP, JAVA, Business Intelligence, or Process Integration	See the Technical Operations for SAP NetWeaver guide at http://help.sap.com/nww. Choose a release. Choose System Administration and Maintenance Information Technical Operations for SAP NetWeaver.
Backing up and recovering the SAP HANA database	See SAP Help Portal for SAP HANA platform at http:// help.sap.com/hana_appliance. Choose Administration SAP HANA Administration Guide.
Backup and restore for Demand Data Foundation (DDF)	See SAP Customer Activity Repository Administration Guide at http://help.sap.com/viewer/p/CARAB. Choose a version. Choose SAP Customer Activity Repository <version> Administration Guide Operations Information Management Backup and Restore</version>

Parent topic: Operations Information [page 31]

Related Information

Monitoring [page 31]

High Availability [page 47]
Software Change Management [page 47]
Support Desk Management [page 49]
Troubleshooting [page 50]

5.2.1 Periodic Tasks

This section describes the tasks required to run to keep the application running smoothly over time. It is important that you monitor the successful execution of these tasks on a regular basis.

i Note

For a description of the dependencies and sequencing of the periodic tasks, please refer to SAP Note 2569544.

Preparation

Program Name/Task/ Transaction	Task Scheduling Tool	Recommended Frequency and Method	Detailed Description
Data replication framework (DRF) (for source system data replica- tion) transaction DRFOUT	Transaction DRFOUT	Frequency: Initial setup of the system Schedule a daily periodic task Method: Scheduled periodic task	Perform this task in the SAP ERP system to replicate the needed master data from SAP ERP system to the sys- tem for SAP Allocation Management. SAP Allocation Management needs at least the following outbound im- plementations: PAHY (Article Hierarchy) PMAT (Material) PMCH (Material Group Hierarchy) PMPL (Material/Plant) PPLT (Plant) PSOS (Source of Supply) PSPR (Sales Price)

Program Name/Task/ Transaction	Task Scheduling Tool	Recommended Frequency and Method	Detailed Description
/DMF/ATR_IMPORT	Transaction SM36 for scheduling a background job or run manually in transaction SE38	Frequency: Initial setup of system Based on the frequency of master data change in SAP ERP Method: Scheduled periodic task or manual task	Perform this task to import: SAP ERP characteristics as attributes into the SAP Customer Activity Repository applications bundle landscape Corresponding attribute values
			If you want to import additional attributes or values, implement BAdI / DMF/ ATR_IMPORT_DEF.
			Analyze the application log using transaction SLG1 for object /DMF/APPL and sub-object /DMF/ATR. If there are errors, you may need to correct the errors and restart the import process manually or wait until the next import is scheduled.
/DMF/PROD_ATR_IMPORT	Transaction SM36 for scheduling a background job or run manually in transaction SE38	Frequency: Initial setup of system Based on the frequency of master data change in SAP ERP	Perform this task to import SAP ERP characteristics as- signments to products in the SAP Customer Activity Repository applications bundle landscape.
		Method: Scheduled periodic task or manual task	If you want to import additional attributes or values, implement BAdI / DMF/ ATR_IMPORT_DEF.
			Analyze the application log using transaction SLG1 for object /DMF/APPL and sub-object /DMF/ATR. If there are errors, you may need to correct the errors and restart the import process manually or wait until the next import is scheduled.

Program Name/Task/ Transaction	Task Scheduling Tool	Recommended Frequency and Method	Detailed Description
/AMR/DAL_FILL Execute Preselection for Data Access Layer	Transaction SM36 for scheduling a background job or run manually in transaction /AMR/DAL_FILL	Frequency: At least daily and depending on the urgency of consuming changes in the supply chain. Method: Scheduled periodic task or manual task	This program updates the SLT-replicated purchase order and inbound delivery information into the corresponding data access layer tables. From these tables the SAP Allocation Management applications retrieve the purchase order and inbound delivery data. You can execute this report in two modes, initial load or delta mode.
/AMR/PRECALCULATION Execute Preselection	Transaction SM36 for scheduling a background job or run manually in transaction / AMR/PRECALC	At least daily and depending on the requirement of the up-to-date level of data. Directly on demand after creating a new market unit or changing the reference store for an existing market unit. Method: Scheduled periodic task or manual task	Precalculation is also known as preselection. You can use this task to preselect and cache data for allocation processing. This report preselects all important data that is used in the SAP Fiori apps for SAP Allocation Management. The apps consume and display the data as provided by the preselection. Furthermore, the preselection of data is the prerequisite to display the initial workload as well as the workload for the in-season fill-in process.
/AMR/KPI_CALCULATION Execute KPI Calculation Engine Transaction /AMR/KPICALC	Transaction SM36 for scheduling a background job or run manually in transaction / AMR/KPICALC	Frequency depends on the KPI configuration: If KPI is dependent on reference season, then single run is required If sales data is based on actual period, depending on your business requirements Method: Scheduled periodic task or manual task	This program calculates the KPI values for the SAP Allocation Management Fiori apps.

Program Name/Task/ Transaction	Task Scheduling Tool	Recommended Frequency and Method	Detailed Description
/AMR/KPI_TRANSPOSITION Execute KPI Transposition	Transaction SM36 for scheduling a background job or run manually in transaction /AMR/KPITRANS	Frequency: Depending on the frequency of the KPI calculation /AMR/KPICALC task Method: Scheduled periodic task or manual task	This program transposes all KPI values of a market unit for the usage in the SAP Allocation Management Fiori apps. Whenever KPI values are calculated, the transposition of the data is mandatory to display the KPI values in the applications listed before.
/AMR/ SYN_UDF_MDL_FRCST_HPR Execute Modeling - Forecast - Hierarchical Priors	Transaction SM36 for scheduling a background job or run manually in transaction /AMR/UDF	Frequency: Depending on your business requirements as defined in UDF. Typically, modeling runs less often (weekly) than forecasting (daily). However, daily processing of modeling, hierarchical prior determination, and forecasting is recommended for products with short lifecycles. Method: Scheduled periodic task or manual task	This program performs modeling, calculation of hierarchical priors, and forecasting for SAP Allocation Management-specific purposes. It provides enhanced selection capabilities and calls Unified Demand Forecasting-specific functional core capabilities.
/AMR/APR_TRANSFER Transfer Assortment Planning Data from Staging to Production	Transaction SM36 for scheduling a background job or run manually in transaction /AMR/APR_TRANS	Frequency: Depending on your planning cycles in assortment planning and the requested lead time for transferring planning data to allocation management especially for initial allocation purposes. Method: Scheduled periodic task or manual task	This program selects assortment planning data from the staging tables and transfers it into the associated productive tables for SAP Allocation Management.

Allocation Execution

Program Name/Task	Task Scheduling Tool	Recommended Frequency and Method	Detailed Description
Allocation Automation/AMR/AUTO_ALLOC	Transaction SM36 for scheduling a background job or run manually in transaction / AMR/AUTO_ ALLOC	Frequency: Daily or weekly dependent on the automation level and frequency of the business scenarios of inseason fill-in and initial allocation Method: Scheduled periodic task	Perform this task to automate the allocation processing in the business scenarios of SAP Allocation Management. When you run the automatic allocation, a set of allocation plans is created.
Transfer Allocation Plans/AMR/ TRANSFER_ALLO_PLANS	Transaction SM36 for scheduling a background job or run manually in transaction/AMR/TRANSFER	Frequency: At least daily and depending on the organization and scheduling of the process chain for the logistics execution of allocation management Method: Scheduled periodic task	Perform this task to transfer allocation data from SAP Allocation Management business scenarios and to create corresponding allocation tables in a default target system.

For information about scheduled periodic tasks for SAP NetWeaver 7.5, see http://help.sap.com/nw75

| Application Help | SAP NetWeaver Library: Function-Oriented View | Search and Operational Analytics |

Managing Search and Operational Analytics | Technical Operations Manual | Administration | Periodic Tasks |

Scheduled Periodic Tasks | ...

Related Information

Deletion of SAP Allocation Management Objects [page 44]

5.2.1.1 Deletion of SAP Allocation Management Objects

This section describes the reorganization tasks.

Allocation Reorganization

Program Name/Task	Task Scheduling Tool	Recommended Frequency and Method	Detailed Description
/AMR/WL_ALLOPLAN_REORG Delete Workloads, Allocation Plans, and Allocation Life Cycles	Transaction SM36 for scheduling a background job or run manually in transaction / AMR/WL_ALLO_REORG	Frequency: On a seasonal basis at the time when allocation plans and life cycle entries from a former season are not required, anymore. Method: Scheduled periodic task	Perform this task to delete allocation plans and the corresponding workloads that are no longer required. In addition, you can also delete allocation life cycles.
/AMR/DRAFT_REORG Deletion of Drafts with Exceeded Reorganization Date	Transaction SM36 for scheduling a background job or run manually in transaction /AMR/DRAFT_ REORG	Frequency: • At least daily • Depending on Customizing settings for draft expiry and reorganization Method: Scheduled periodic task	Perform this task to delete interim versions of SAP Allocation Management objects that are no longer required. Drafts have an expiry and a reorganization period that are defined for each functional area in Customizing. Once the reorganization period is over, the draft can be deleted from the system.
/DMF/DCC_DRAFT_REORG Deletion of Distribution Curve Drafts with Exceeded Reorganization Date	Transaction SM36 for scheduling a background job or run manually in transaction / DMF / DCC_DRAFT_REORG	Frequency: Depending on Customizing settings for dis- tribution curve draft expiry and reorganization Method: Scheduled periodic task	Perform this task to delete draft versions of distribution curves that are no longer required. Drafts have an expiry and a reorganization period that are defined in Customizing. Once the reorganization period is over, the draft can be deleted from the system. Deletion of Drafts [page 45]
/AMR/ SEASONAL_DATES_REORG Delete Season-Dependent Dates	Transaction SM36 for scheduling a background job or run manually in transaction /AMR/SEAS_DAT_REORG	Frequency: On a seasonal basis at the time when dates from a former season are not required anymore. Method: Scheduled periodic task	Perform this task to remove season-dependent dates from the database.

Program Name/Task	Task Scheduling Tool	Recommended Frequency and Method	Detailed Description
/AMR/MU_PARAM_REORG Delete Allocation Parameters Maintained at DC and Store Level	Transaction SM36 for scheduling a background job or run manually in transaction /AMR/ MU_PPARAM_REORG	Frequency: depending on your business requirements Method: Scheduled periodic task or manual task	Perform this task to delete allocation parameter settings for a market unit. The program deletes all allocation parameters that have been maintained on distribution center and store level for a selected market unit.
/AMR/DAL_REORG Reorganization of Data Access Layer Tables	Transaction SM36 for scheduling a background job or run manually in transaction /AMR/DAL_REORG	Frequency: depending on your business requirements Method: Scheduled periodic task or manual task	Perform this task to delete purchase orders and inbound deliveries from data access layer tables.
/AMR/WL_PRE_INDX_REORG Workload Precalculated Reorganization	Transaction SM36 for scheduling a background job or run manually in transaction /AMR/WL_PRE_INDX_RE	Frequency: depending on your business requirements Method: Scheduled periodic task or manual task	Perform this task to delete precalculated data.
/AMR/KPI_PRE_REORG KPI Preselection Reorganization	Transaction SM36 for scheduling a background job or run manually in transaction /AMR/KPI_PRE_REORG	Frequency: depending on your business requirements Method: Scheduled periodic task or manual task	Perform this task to delete KPI data
/AMR/APR_REORG Reorganization of Assortment Planning Data in AM Production Tables	Transaction SM36 for scheduling a background job or run manually in transaction /AMR/APR_REORG	Frequency: depending on your business requirements Method: Scheduled periodic task or manual task	Perform this task to delete assortment planning data from SAP Allocation Management production ta- bles.

Related Information

Deletion of Drafts [page 45]

5.2.1.2 Deletion of Drafts

You can delete interim versions of objects that are no longer required.

A draft is an interim version of an business object that has not yet been explicitly saved as an active version. Drafts are saved automatically in the background at dedicated points in time after a user ends editing without saving. The draft is then available as the personal working version for this user. You can delete draft versions

that are no longer required. You define draft expiry and draft reorganization periods in the Customizing. The **draft expiry** is the period of time after which a draft is defined as not being active anymore. As long as a draft is active, the existence of the draft defines a lock. The **reorganization period** is the period of time, after which a draft is ready for reorganization (by deletion). Once the reorganization period is over, the draft can be deleted from the system. You can delete the following draft objects:

- Distribution curve drafts
- Workload selection drafts
- Workload drafts
- Workload message drafts
- Allocation plan drafts
- Market unit drafts
- Parameter maintenance drafts
- Season-dependent date drafts
- KPI configuration drafts

Draft Expiry Customizing

Drafts have an expiry and a reorganization period that you define in the Customizing for each functional area:

- For Distribution Curve Configuration under Cross-Application Components Demand Data Foundation
 Data Maintenance Distribution Curve Configuration Maintain Expiry and Reorganization Periods for Drafts
- For SAP Allocation Management under Cross-Application Components Allocation Management Business Scenario Settings Maintain Expiry and Reorganization Periods for Drafts

Draft Deletion

You can delete drafts manually or alternatively via a scheduled background job:

- **Distribution Curve Configuration** drafts are deleted with transaction *Delete Expired Distr. Curve Drafts* (/DMF/DCC_DRAFT_REORG) or alternatively via scheduled background job for program /DMF/DCC_DRAFT_REORG defined through transaction SM36
- SAP Allocation Management drafts are deleted with transaction Delete Drafts (/AMR/DRAFT_REORG) or alternatively via scheduled background job for program /AMR/DRAFT_REORG defined through transaction SM36

5.3 High Availability

SAP Customer Activity Repository is based on SAP HANA and SAP NetWeaver technology. All high availability considerations that apply to SAP HANA and SAP NetWeaver, such as increasing system availability, improving performance, and eliminating unplanned downtime, also apply to SAP Customer Activity Repository.

Topic	Path	
General information on high availability strategies for SAP NetWeaver-based systems	See SAP Help Portal for SAP NetWeaver at http:// help.sap.com/nw . Choose a release. Under Application Help, choose Function-Oriented View Solution Life Cycle Management SAP Business Continuity.	
General information on high availability strategies for SAP HANA-based systems	See SAP Help Portal for SAP HANA Platform at http:// help.sap.com/hana_platform. Choose SAP HANA Administration Guide.	

Parent topic: Operations Information [page 31]

Related Information

Monitoring [page 31]
Administration and Management [page 36]
Software Change Management [page 47]
Support Desk Management [page 49]
Troubleshooting [page 50]

5.4 Software Change Management

Software Change Management standardizes and automates software distribution, maintenance, and testing procedures for complex software landscapes and multiple software development platforms. These functions support your project teams, development teams, and application support teams.

The goal of Software Change Management is to establish consistent, solution-wide change management that allows for specific maintenance procedures, global rollouts (including localizations), and open integration with third-party products.

Transport and Change Management

SAP Customer Activity Repository uses the infrastructure of SAP NetWeaver.

For information about change management for SAP NetWeaver, see SAP Help Portal at http://
help.sap.com/nw/. Choose a release and then check the information under see Application Help SAP
NetWeaver Library: Function-Oriented View Search and Operational Analytics Managing Search and
Operational Analytics Technical Operations Manual Change Management.

Development Requests and Development Release Management

You use the standard tools and procedures of SAP NetWeaver to transport SAP Customer Activity Repository code extensions or Customizing changes. All such changes are captured by the transport system and are transportable.

Path
See SAP Help Portal for SAP NetWeaver at http:// help.sap.com/nw . Choose a release. Under Operations, choose Technical Operations for SAP NetWeaver Administration of Application Server ABAP .
See SAP Help Portal for SAP HANA platform at http://help.sap.com/hana_appliance. Under Administration, choose SAP HANA Administration Guide.
See SAP Note 1798895 🏕 .

Support Packages and Patch Implementation

We recommend that you implement SAP NetWeaver, SAP HANA, and SAP Customer Activity Repository support package stacks. These support package stacks are sets of support packages and patches for the respective product version that must be used in the given combination. The technology for applying support packages and patches will not change.

You can find detailed information about the availability of SP stacks for SAP Customer Activity Repository on the SAP Support Portal (see below). See the corresponding Release Information Notes (RINs), before you apply any support packages or patches of the selected SP stack.

More Information

Торіс	Path	
Maintenance Planner	http://support.sap.com SAP Solution Manager SAP Solution Manager 7.2 Processes Landscape Management Maintenance Planner	
Support Packages Stacks	http://support.sap.com/> under / My Support > Softw Downloads > Support Package Stacks	

Parent topic: Operations Information [page 31]

Related Information

Monitoring [page 31]
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Support Desk Management [page 49]
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5.5 Support Desk Management

Support Desk Management enables you to set up an efficient internal support desk for your support organization that seamlessly integrates your end users, internal support employees, partners, and SAP Active Global Support specialists with an efficient problem resolution procedure. For support desk management, you need the methodology, management procedures, and tools infrastructure to run your internal support organization efficiently.

Remote Support Setup

If you want to use SAP remote services (for example, SAP EarlyWatch or Remote Consulting), or if you would like to permit an SAP support consultant to work directly in your system to make a more precise problem diagnosis, set up a remote service connection. Additionally, there exists an ABAP role for read-only access for remote support that is also relevant. This role (SAP_RCA_SAT_DISP for ABAP) is available in the STPI plug-in and is generated when a managed system is connected to SAP Solution Manager. Should any additional application-specific functionality be necessary for use by an SAP support consultant, then an applicable role should be defined providing the appropriate authorization(s) and assigned to the SAP support consultant's user logon.

Problem Message Handover

To report an incident (that is, create an SAP support message) for your installation, you must specify an application component. For SAP Allocation Management, you can specify one of the following application components:

- CA-RT-AM to enter support messages for general issues with SAP Allocation Management that cannot be easily classified into one of the following categories.
 - CA-RT-AM-FIO to enter support messages for the SAP Fiori (SAP HTML5) applications of SAP Allocation Management.
 - CA-RT-AM-CAP to enter support messages for SAP Allocation Management core application:
 - CA-RT-AM-INT to enter support messages for the Integration (to SAP ERP) component of SAP Allocation Management.
- CA-DDF-RT to enter support messages for Demand Data Foundation.
 - CA-DDF-RT-MD to enter support messages for the Master Data component.
 - CA-DDF-RT-IF to enter support messages for the Interfaces component.
 - CA-DDF-RT-FIO to enter support messages for the SAP Fiori applications for Demand Data Foundation.

Parent topic: Operations Information [page 31]

Related Information

Monitoring [page 31]
Administration and Management [page 36]
High Availability [page 47]
Software Change Management [page 47]
Troubleshooting [page 50]

5.6 Troubleshooting

SAP Fiori

For information about troubleshooting for SAP Fiori, see SAP Help Portal at http://help.sap.com/fiori_implementation. Choose a NetWeaver version and then Operations AP Fiori: Operations Troubleshooting SAP Fiori Apps .

If none of the SAP Fiori apps for SAP Allocation Management is starting, please execute report /UI5/APP INDEX CALCULATE on the front-end system and try again.

OData Service Troubleshooting

For troubleshooting information about OData Service, see the Troubleshooting Guide for SAP NetWeaver Gateway in SAP Note 1797736.

Parent topic: Operations Information [page 31]

Related Information

Monitoring [page 31]
Administration and Management [page 36]
High Availability [page 47]
Software Change Management [page 47]
Support Desk Management [page 49]

6 Business Overview

SAP Allocation Management is a flexible and intuitive solution to manage the distribution of fashion articles to stores in order to facilitate business scenarios, initial allocations and in-season fill-ins (manual and automatic). It provides users with an easy and swift user experience for understanding upcoming workloads as well as system-proposed allocation plans with full transparency. It leverages analytical functionality of the SAP Customer Activity Repository application such as location clustering, distribution curve analysis, unified demand forecast and real-time inventory, as well as product-attribute management. The tool provides a set of predefined best-of-breed allocation strategies, supported by KPIs that you can define in a flexible way. It offers the option to extend these on a project base. It enables fashion companies to run a highly automated allocation process and at the same time allows manual trigger and override options. SAP Allocation Management is fully integrated with the SAP Fashion Management application and the SAP Merchandising for Retail and Wholesale Distribution package.

Business Scenarios

The following business scenarios are supported by SAP Allocation Management:

Initial Allocation

This scenario covers the first allocation of new products to the stores and is usually processed at the start of a season, collection, or theme. SAP Allocation Management supports the allocator in preseasonal allocation planning and processing of products due for initial allocation. Initial allocation is usually based on a planned presentation date for the products in the stores and on planned store inventory at season start. Alternatively, initial allocation can be used for incoming purchase orders or inbound deliveries. In addition, initial allocation can consume planned sales or receipt data from an assortment planning tool as a starting point.

In-Season Fill-In

This scenario covers the automatic replenishment of products after the first sales in the store. SAP Allocation Management supports the allocator in the process of refilling products that have been sold and can be based on Unified Demand Forecast.

• In-Season Manual Push: This scenario covers the manually triggered allocation after the initial push and in parallel to automatic fill-in and can be used in special situations, for example, unexpected sales trends, special store events, overstock at the distribution center or end of season push.

Additionally, SAP Allocation Management allows you to set up your customer-specific business scenarios. However, the new business scenario must be linked to one of the supported reference business scenarios, either initial allocation or in-season fill-in.

With these scenario, you can:

- Launch new fashion articles for the first time in your retail brick-and-mortar channel based on defined target stocks
- Facilitate the automatic fill-in during the season
- Trigger additional pushes manually during the season
- Analyze your allocation results in a comprehensive manner across the stores of a market unit and verify the performance of a company's allocation strategies.

- Set up the organizational structure of one or multiple market units that are relevant for allocations
- Define the parameters on the level of product groups and either stores or distribution centers to provide allocators with system-proposed allocation plans
- Automate the allocation process up to an automation level defined for your company

By implementing this scenario, you benefit by:

- Simplifying the allocation processing for fashion products
- Reacting to sales trends through statistical forecast and dynamic KPIs
- Satisfying the consumer demand to a higher extent as a result of better service levels
- Achieving faster processing through integration and automation resulting in a responsive supply chain
- Empowering business users through easy and swift applications combining real-time business information with sophisticated and highly automated allocation logic

As a result of implementing this scenario, you can:

- Rapidly and easily manage the allocation process
- Allow allocators to review and overwrite the system-proposed allocation plans acting based on exceptions that may occur for business or technical reasons
- Transfer all relevant information to the back end system for generating follow-on documents (typically stock transfer orders)

6.1 Software Component Matrix

Software Components Used by SAP Allocation Management Business Processes

SAP Allocation Management Busi- ness Process	Back-End Pro	duct Version CAR	Front-End Product Version SAP FIORI FOR SAP CARAB			
	RTLDDF	RTLCAR	RTLAPPS	SAP RTL AFL FOR SAP HANA	UICAR001	
Enabling Demand Data Foundation	х		Х			
Manage Category Responsibilities (optional)	Х					
Manage Location Clusters	Х	Х	Х		Х	

SAP Allocation Management Business Process	Back-End P	roduct Version CAR	RETAIL APPL	BUNDLE	Front-End Product Version SAP FIORI FOR SAP CARAB
	RTLDDF	RTLCAR	RTLAPPS	SAP RTL AFL FOR SAP HANA	UICAR001
Manage Product At- tributes for Allocation Processing	Х	Х	Х		Х
Manage Product At- tributes for Distribu- tion Curve Analysis	Х	х	Х		Х
Manage Market Units	Х		Х		Х
Manage Allocation Parameters	Х		Х		Х
Manage Allocation Workload	Х	Х	х		Х
Run Automatic Allocation	Х		х		
Manage Allocation Plans	Х	Х	х	Х	Х
Transfer Allocation Plans to Follow-on Systems	Х		Х		
Configure Allocation KPIs	Х		Х		Х
Analyze Allocation Results	X	Х	Х		X
Analyze Forecast Results	Х		Х		X

6.2 Deployment Models for SAP Allocation Management

Information on common characteristics and different system landscape variants

The SAP Allocation Management deployment models share the following common characteristics:

- SAP Allocation Management is a consuming application of SAP Customer Activity Repository.
- SAP Allocation Management is installed as part of SAP Customer Activity Repository applications bundle 4.0 FPS01 (SAP CARAB 4.0 FPS01), however, the application is licensed separately.
 - SAP CARAB 4.0 FPS01 is installed as an add-on to SAP NetWeaver Application Server for ABAP, on an underlying SAP HANA Platform.
- SAP Allocation Management uses SAP HANA content that is automatically installed when installing SAP Customer Activity Repository applications bundle 4.0 FPS01 (SAP CARAB 4.0 FPS01), including:
 - Demand Data Foundation (DDF) module in SAP Customer Activity Repository (RTLDDF software component)
 - SAP Customer Activity Repository platform layer (RTLCAR software component)
 - SAP Allocation Management (RTLAPPS consuming applications software component)
- SAP Allocation Management is embedded into the SAP Assortment Planning database schema on the SAP HANA Platform (SAP_RAP_DB_Schema) in addition to the schemas of SAP Customer Activity Repository software components (SAP_DDF_DB_Schema, SAP_CAR_DB_Schema).
- SAP Allocation Management uses master data, sales data, transactional data, and inventory data
 originating from a connected source system, such as SAP Retail, SAP Merchandising for Retail, SAP
 Fashion Management, SAP S/4HANA Retail, SAP S/4HANA Retail for merchandise management or SAP
 S/4HANA for fashion and vertical business.
 - Prerequisite for SAP Allocation Management SAP HANA content activation is that SAP Retail (SAP ERP or SAP S/4HANA) tables and SAP Fashion Management tables are replicated using the SAP Landscape Transformation Replication Server. SAP Fashion Management table replication is mandatory, even if you do not use SAP Fashion Management.
- SAP Allocation Management supports only a single SAP Retail (SAP ERP) and/or SAP S/4HANA source
 system. It does not support multiple source systems. Data from connected SAP Retail and SAP S/4HANA
 systems is stored in different database schemas, accessed by SAP Allocation Management.

6.2.1 SAP Allocation Management Standalone

The SAP Allocation Management standalone deployment option has the same key characteristics as SAP Customer Activity Repository standalone. Information specific to SAP Allocation Management:

- SAP Allocation Management is deployed alongside an existing installation of
 - o SAP Retail, SAP Merchandising for Retail, or SAP Fashion Management
 - SAP S/4HANA Retail, SAP S/4HANA Retail for merchandise management or SAP S/4HANA for fashion and vertical business, based on SAP S/4HANA, on-premise edition 1709 and 1809
- Source master data system tables required for your scenario are created/replicated using the SAP Landscape Transformation Replication Server.
- SAP Allocation Management requires the SLT dummy table creation for the not actively used schema, either ECC or S4H.

6.2.2 SAP Allocation Management Co-Deployed with a Source Master Data System

The SAP Allocation Management co-deployment option has the same key characteristics as the SAP Customer Activity Repository co-deployment with a source master data system. Information specific to SAP Allocation Management:

- SAP Allocation Management supports a single SAP Retail (SAP ERP) or SAP S/4HANA source system.
- SAP Allocation Management is deployed alongside an existing installation of one of the following:
 - o SAP ERP 6.0
 - o SAP S/4HANA, on-premise edition 1709 and 1809
- Data from connected SAP Retail and SAP S/4HANA source systems is stored in different database schemas, accessed by SAP Allocation Management.

6.3 Business Scenario

You can use this scenario to facilitate the business scenarios related to allocation:

- Initial allocation
- In-season fill-in
- In-season manual push

The following business processes are **required** for SAP Allocation Management:

- Enabling Demand Data Foundation
- Configure Distribution Curves
- Manage Market Units
- Manage Allocation Parameters
- Manage Allocation Workload
- Run Automatic Allocation
- Manage Allocation Plans
- Transfer Allocation Plans to Follow-on Systems

The following business processes are **optional** but recommended for SAP Allocation Management:

- Setting Up Demand Forecasting
- Manage Category Responsibilities
- Manage Location Clusters
- Manage Product Attributes for Allocation Processing
- Manage Product Attributes for Distribution Curve Analysis
- Configure Allocation Key Performance Indicators (KPIs)
- Receive Assortment Planning Information
- Analyze Allocation Results

i Note

SAP Allocation Management consumes data from the SAP Customer Activity Repository. Ensure that you have completed the steps as defined in the SAP Customer Activity Repository Administration Guide section Business Scenario.

Verify that you have configured the necessary Customizing settings in the SAP Customizing

Implementation Guide (transaction code SPRO) choosing Cross-Application Components Demand Data

Foundation.

In addition to the Customizing settings above, you need to maintain the following Customizing settings:

- Set up the SAP Allocation Management application under SAP Customizing Implementation Guide
 Cross-Application Components Allocation Management
- Set up the distribution curve analysis under SAP Customizing Implementation Guide SAP Customer Activity Repository Demand Data Foundation Data Maintenance Distribution Curve Configuration.
- Set up the modelling and forecasting component under SAP Customizing Implementation Guide SAP Customer Activity Repository Demand Data Foundation Modelling and Forecasting.

6.3.1 Enabling Demand Data Foundation and Setting Up Demand Forecasting for Allocation Processing

SAP Allocation Management requires master data and time series data for the productive operation. This data is not native to this application, and it is created in other applications, such as SAP Merchandising for Retail, SAP Fashion Management, SAP S/4HANA Retail for merchandise management, or SAP S/4HANA for fashion and vertical business.

Note that SAP Customer Activity Repository additionally receives data replicated from a connected SAP source master data system by using the SAP Landscape Transformation Replication Server (SLT) replication. For more information, see section Create/Replicate Source Master Data System Tables in the *Common Installation Guide*.

Enabling Demand Data Foundation

The process to populate master data runs as follows:

Send master data (SAP ERP)
 SAP ERP prepares and sends the master data through a Data Replication Framework (DRF) (transaction DRFOUT).

You have the following outbound implementations:

Sequence	Replication Mode	SAP ERP Outbound Implementa- tion	SAP ERP Description	DDF Inbound Interface
1	Initialization	PMCH	Material Group Hierarchy	/DMF/MDIF_PROD_HIER_INBOUND Product Hierarchy
2	Initialization, Change, and Manual	PMAT	Material	/DMF/MDIF_PRODUCT_INBOUND Product
3	Initialization, Change, and Manual	PPLT	Plant	/DMF/MDIF_LOCATION_INBOUND
4	Initialization, Change, and Manual	PMPL	Material and Plant	/DMF/MDIF_PROD_LOC_INBOUND Product Location
5	Change	PSPR	Sales Price	/DMF/MDIF_PROD_LOC_INBOUND Product Location
6	Initialization, Change, and Manual	PINV	Inventory	/DMF/OPIF_INVENTORY_INBOUND
7	Change	РМАР	Moving Aver- age Price	/DMF/MDIF_PROD_LOC_INBOUND Product Location
8	Initialization, Change, and Manual	PSOS	Source of Supply	/DMF/MDIF_LANE_INBOUND Transportation Lane
9	Initialization, Change, and Manual	PVEN	Vendor	/DMF/MDIF_LOCATION_INBOUND
10	Initialization	РАНҮ	Article Hierar- chy	/DMF/MDIF_PROD_HIER_INBOUND Product Hierarchy

When carrying out the data replication, the system automatically generates data replication logs, which you can then evaluate. You can access this option under SAP Easy Access SAP Retail (transaction w10T) under Logistics Retailing Distributed Retailing Merchandise Lifecycle Optimization Outbound Analyze Log for Outbound Implementations (DRFLOG).

2. Receive master data (DDF)

By default, the DDF staging tables receive the data. You use the *Monitor Imports* function to view the data, transfer the data from the staging tables to the production tables, and to process the received data. DDF performs validation checks before inserting the data into the production tables.

i Note

You can choose to bypass the staging tables in Customizing under Cross-Application Components Demand Data Foundation Basic Settings Integration Define Import Settings. For more information, see the Customizing activity documentation (transaction SPRO).

- Define sales history (DDF)
 This application uses point-of-sale (POS) data from SAP Business Warehouse (SAP BW) or from an external application.
- 4. Configure Exceptions: The Customizing view in the implementation guide of SAP Customer Activity Repository allows you to change the priority of exceptions (or even switch them off) and also specify exceptions that prevents the automatic release of allocation plan items.

Setting Up Unified Demand Forecast (Optional)

To set up the demand forecast, perform the following activities:

- Technical setup of Unified Demand Forecast (UDF) as listed in the Common Installation Guide in section Complete UDF Setup
- Configuration of UDF functionality for modeling and forecasting as described in the SAP Customer Activity Repository Administration Guide in section Configuring Unified Demand Forecast Note that only the following steps of this business process are relevant for SAP Allocation Management:
 - Send master data
 - o Receive master data
 - Define sales history
 - Configure exceptions
 - Configure unified demand forecast, run modeling and forecasting from SAP Allocation Management (optional)

i Note

For SAP Allocation Management, the system runs modeling and forecasting for generic products on a product-color level by aggregating daily sales of variants, beforehand (aggregation profile 0001). The result of the forecast is stored on product-color level as well as consumed by the forecast-based allocation algorithm in SAP Allocation Management. The system runs modeling, hierarchical priors and forecasting for single products using the classical unified demand forecast without aggregation. You can schedule modeling, hierarchical priors, and forecasting for the purpose of allocations using report /AMR/SYN UDF MDL FRCST HPR called via transaction /AMR/UDF.

Related Information

Complete UDF Setup

6.3.2 Manage Category Responsibilities

You use this business process to define and display areas of responsibilities.

Prerequisites

- You have defined a master data system.
- You have imported a product hierarchy.

For information about these prerequisites, see Configuring Demand Data Foundation (DDF).

Process

- 1. Launch Manage Category Responsibilities
- 2. Maintain Area of Responsibility:
 - Select product hierarchy
 - o Select the user.
 - o Choose Continue.
 - o Select the master data system.
 - Select the product hierarchy. Expand the nodes as required, select the relevant product groups, and choose *Apply*.

i Note

- You can select multiple product groups by holding the CTRL key.
- You can also remove existing assignments.
- 3. Choose *Next* and review your changes.
- 4. Choose Finish.

Result

As a result of this process, you have updated the area of responsibility.

6.3.3 Manage Location Clusters

You use this business process to group locations into clusters based on common characteristics or attributes into a set of clusters. These attributes include but are not limited to geography, formats, selling space, product category, sales, and margin performance. Usually, a combination of attributes and performance metrics are

used. The clustering is done using a cluster algorithm. The cluster algorithm performs the grouping of locations and selects the optimal number of locations.

Process

The following business process creates a location cluster set:

- 1. Create a new location cluster set and select reference settings.
- 2. Select locations using a combination of attribute selection and location hierarchy criteria. The selected locations are subject to the clustering process.
- 3. Select Products using a combination of attribute selections and article hierarchy criteria.
- 4. Perform smart clustering.
 - 1. Select the attributes.
 - 2. Select the minimum and the maximum number of expected cluster.
 - 3. Perform clustering.
- 5. Analyze the result.
- 6. If required, select locations and
 - 1. Create new cluster
 - 2. Manually move selected locations from one cluster to another cluster
- 7. Save the cluster set.

Results

As a result of this process, you created a cluster set. Cluster sets are used throughout the subsequent allocation process steps such as:

- Manage Allocation Parameters [page 64]
- Manage Allocation Plans [page 67]

6.3.4 Manage Product Attributes for Allocation Processing (Optional)

You can use this process to define the product attributes that are relevant for specific use cases in SAP Allocation Management. Product attributes help users identify special characteristics of the products in the assortment and to parametrize allocation processing in a tailored way. Product attributes support the following functions of SAP Allocation Management:

- Parameter maintenance
- Allocation workload selection and display
- Allocation plan display

Process

- 1. Open the Manage Product Attributes SAP Fiori app.
- 2. Select the article hierarchy level by choosing Assign Attributes.
- 3. Select Allocation Management as the relevant application.
- 4. Add the relevant attributes for allocation.
- 5. Select the purpose for each attribute.
- 6. Save the settings per attribute hierarchy level.

Result

There is an attribute setting for all article hierarchy levels that are relevant for allocation management. The result is used in subsequent allocation processes such as parameter maintenance, automatic allocation, allocation workload, and allocation plan.

6.3.5 Manage Product Attributes for Distribution Curve Analysis (Optional)

You can use this process to define the product attributes that are relevant for the usage of the distribution curve analysis. Distribution curve analysis is used by SAP Allocation Management and other applications.

Process

- 1. Open the Manage Product Attributes SAP Fiori app.
- 2. Select the article hierarchy level by choosing Assign Attributes.
- 3. Select Distribution Curve as the relevant application.
- 4. Add the relevant attributes for distribution curve analysis.
- 5. Select the purpose for each attribute.
- 6. Save the settings per attribute hierarchy level.

Result

There is an attribute setting for all article hierarchy levels that are relevant for distribution curve analysis. The result is used in the commonly available service for analyzing the distribution of sizes, colors, or both based on historic sales data.

6.3.6 Configure Distribution Curves

You can use this process to define how historic sales of products and locations are grouped and the past time periods are taken into account for the automatic analysis of distribution curves, as well as the validity of the configuration in the product and location hierarchy.

Process

- 1. Open the Configure Distribution Curves SAP Fiori app.
- 2. Create a new distribution curve configuration with the respective usage type maintained in Customizing.
- 3. Specify the characteristics to be analyzed and the aggregation criteria for the products and locations. Choose only size 1 / size 2 for SAP Allocation Management.
- 4. Configure the analysis period for products with season assignment and those without.
- 5. Specify the validity of the configuration in terms of nodes from the (default) product hierarchy, as well as nodes from location hierarchies such as (but not limited to) location cluster sets.
- 6. Save the configuration.

Result

At the time of preselection for SAP Allocation Management, the system analyzes the distribution curve for a given product and store based on the best specific valid configuration for that product and location. The system uses this information for automatic breakdown of allocation quantities for product/color and size level.

6.3.7 Manage Market Units

You can use this process to set up the organizational entities relevant for allocation, the allocator responsibilities, and other basic settings for allocation parameter maintenance and business scenarios for allocation.

Process

- 1. Open the Manage Market Units SAP Fiori app.
- 2. Select the relevant distribution centers and the corresponding storage locations.
- 3. Select the relevant stores and maintain store settings.
- 4. Add allocators and assign product hierarchy levels defining their areas of responsibility.
- 5. Specify store cluster sets for product hierarchy nodes.
- 6. Maintain settings for allocation parameter maintenance.

- 7. Select company-specific business scenarios for initial allocation, in-season fill-in, and in-season manual push along with the data source and, if applicable, the relevant document types of that data source.
- 8. Select company-specific business scenarios for in-season fill-in and in-season manual push.
- 9. Review KPIs configured for the market unit.

Result

With this process, you have created the basic set-up for all following process steps.

6.3.8 Configure Allocation KPIs

You can use this process to define the key performance indicators that you want to prepare in order to support allocation processes, such as but not limited to parameter maintenance and allocation plan creation.

Process

- 1. Open the Configure Allocation KPIs SAP Fiori app.
- 2. Specify settings in regard to the nature and data source of the KPI along with aggregation levels for products and locations.
- 3. Select in the settings the KPI calculation module from a list of SAP predefined modules or customer-individual modules.
- 4. Specify the analysis periods for products with and without season.
- 5. Assign market units for the usage of the respective KPI and flag the apps which are to consume the KPI.
- 6. In the system, run the transaction /AMR/KPICALC or schedule the report /AMR/KPI_CALCULATION to make the system calculate the KPI based on your configuration and for the market unit selected.

i Note

Whether or not an app for a specific market unit can consume a KPI depends on different factors, such as aggregation levels for products and stores.

For example, KPIs to be used in the workload must be calculated on market unit level, while KPIs for allocation plan must be calculated on store level. KPIs for parameter maintenance must be calculated on the product hierarchy level which is used for parameter maintenance as well.

6.3.9 Manage Allocation Parameters

You use this process to maintain parameters relevant for system-proposed allocation plan creation.

Process

- 1. Open the Manage Allocation Parameters SAP Fiori app.
- 2. Select the market unit and the product hierarchy node for which you want to maintain parameters.
- 3. Select the season for which you want to maintain parameters (optional, depends on market unit settings).
- 4. On the Stores tab, add stores and maintain the relevant default parameter settings for stores.
- 5. Select a specific product and maintain product-specific parameter settings for stores (optional).
- 6. Switch to the *Distribution Center* tab, add distribution centers, and maintain the relevant default parameter settings for them.
- 7. Select an attribute value and maintain attribute-specific parameter settings (optional).

i Note

You can use the function *Copy Parameters from Reference* to copy parameters from a reference store or reference distribution center to a store or distribution center for which no parameters exist yet. In the same way, you can create parameters from a reference product hierarchy node. You can use the function *Copy Season Parameters* to copy parameters from a reference season to another season. Note that existing parameters of the target season will be overwritten.

- 8. Select a specific product and maintain product-specific parameter settings for distribution centers (optional).
- 9. Save the parameter settings.

i Note

You can also review parameter settings in a graphical form (chart) once you have set up at least one suitable KPI for parameter maintenance.

Result

With this process, you have defined the parameters that are required for manual and automatic allocation plan creation.

6.3.10 Receive Assortment Planning Information (Optional)

You use this process to receive planned store sales (or receipts) for products with or without season from an assortment planning tool, such as SAP Assortment Planning.

Process

1. Send assortment planning information using BAPI /AMR/BAPI_ASSORT_PLAN_CREATE (or delete it with /AMR/BAPI ASSORT PLAN DELETE) into staging tables.

- 2. Process the staging tables using the report /AMR/APR_TRANSFER to transfer the data into the productive tables of SAP Allocation Management.
- 3. Depending on the configuration and parameter settings, SAP Allocation Management automatically consumes the data during preselection and allocation plan creation.

6.3.11 Manage Allocation Workload

You use this process to trigger allocation plan creation for initial allocation or for additional in-season pushes manually, or to review automatically created allocation plans for all business scenarios.

Process

- 1. Open the My Allocation Workload SAP Fiori app for the desired business scenario.
- 2. Create a selection variant by selecting the market unit, distribution center, data source, season, and product dimension.
- 3. Use the graphical overview to select specific parts of the workload, for example select a time interval.
 - o For initial allocation:
 - Work through the worklist to gather information about the product/colors that are supposed to arrive the distribution center based on purchase order or inbound delivery information. If you have triggered allocation from DC stock, then use the store's presentation date to facilitate initial allocation on time in the stores right before the presentation date.
 - You can change the processing type of the product/colors that you want to allocate to **automatic**. Or you can trigger the allocation plan creation **manually** by choosing either *Create Basket* for triggering allocation plan calculation for independent product/colors or *Create Cross-Product Basket* for triggering allocation plan calculation for the whole group of selected product/colors.
 - For in-season fill-in:
 Work through the worklist to understand the result of the automatic allocation plan creation.
- 4. Select products from the worklist based on relevant KPIs (such as sales performance) and trigger their allocation. Thereby, choose the allocation strategy and other settings from the allocation basket functionality.
- 5. Go to the allocation plans for reviewing the details of the plans.

Result

With this process, you have prepared product/colors for an automatic initial allocation or even triggered that process manually. Moreover, during in-season fill-in, you have reviewed the result from automatic fill-in on a product/color level. Lastly, you have initiated additional in-season pushes supported by KPIs and easy-to-use basket functionality.

6.3.12 Run Automatic Allocation

You use this process to automate the product selection for allocation and the creation of allocation plans.

Process

- 1. Define the necessary selection criteria for distribution center, product dimension, and other relevant selections.
- 2. Decide if you want the system to release allocation plans automatically or leave them in the status *In Planning*.
- 3. Schedule the report for automatic allocation plan creation as a background job or start it from Cross-Application Components Allocation Management Automatic Allocation (transaction / AMR/AUTO ALLOC).

Result

With this process, the system creates allocation plans and informs about exceptions.

6.3.13 Manage Allocation Plans

You use this process for reviewing allocation plans that have been created by the system.

Process

- 1. Open the My Allocation Workload or the My Allocation Plans SAP Fiori app.
- 2. Select an allocation plan and navigate to the detailed plan display.
- 3. Review the allocation plan data.
- 4. If the plan has an allocation plan type for simulation, you will not be able to release the plan. However, you can choose a regular allocation plan type in the allocation plan header if you want to turn the plan into an operative mode and release it to the follow-on system.
- 5. If the plan is not released, you can change the allocation plan data, for example, allocation quantities or store parameters (optional). You can recalculate the allocation plan data and save the changes.
- 6. Release allocation plan items and save the plan.

Result

With this process, you have accepted automatically created allocation plans or adjusted the plan data. The plans are available for the transfer to the system that triggers the logistics.

6.3.14 Transfer Allocation Plans to Follow-On Systems

You use this process to trigger the creation of allocation tables from the allocation plans in the follow-on system.

Process

i Note

Make sure that the Customizing for allocation table creation in the follow-on system is set up.

- 2. Define the necessary selection criteria for collecting the released allocation plans to transfer.
- 3. Review system warnings or error messages to make sure the data was transferred to the back-end system.

Result

With this process, you have sent allocation plans to SAP Retail, SAP Fashion Management, or SAP S/4HANA to create allocation tables and subsequently trigger the logistics execution.

6.3.15 Analyze Allocation Results

You use this process to run business analysis in regard to store allocations, such as gaining insight into the allocation status, and reviewing the results of allocation plan creation across multiple stores or all stores of the market unit for a given business scenario.

Process

- 1. Open the My Allocation Results SAP Fiori app.
- 2. Define filter values such as market unit, business scenario, locations, and date range.
- 3. Review dashboard information such as allocation status and quantity overview.
- 4. Define dynamic hierarchies in the result list for analyzing important key figures such as store inventory, allocation quantities, shortage, and dynamic KPI.

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