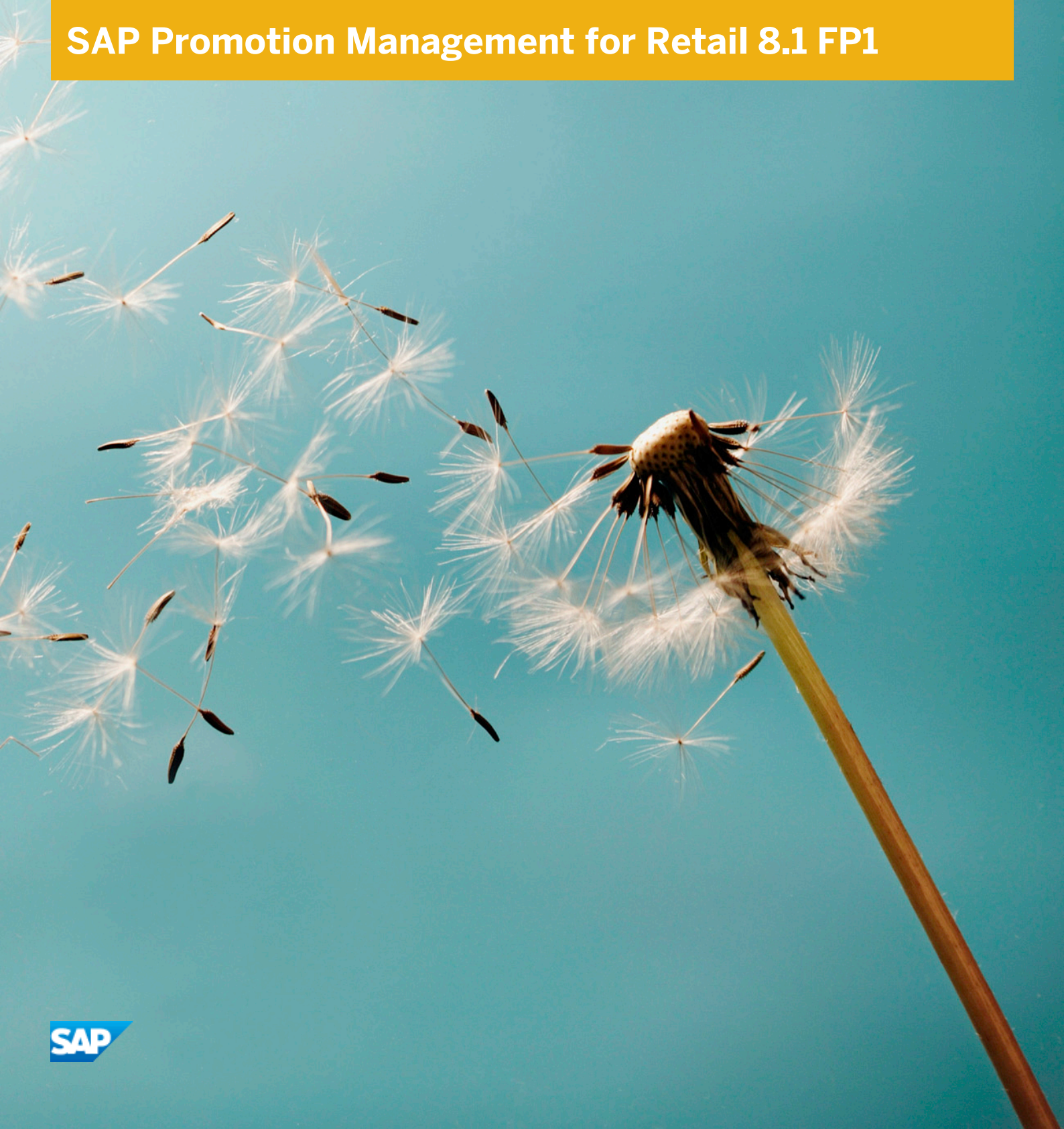# SAP Promotion Management for Retail 8.1 FP1

Document History

The following table provides an overview of the most important document changes.

Table 1

Version	Date	Description
1.01	2015-08-19	Update *Naming Conventions* table to include the *Common Upgrade Guide*

Content

1 Getting Started

About This Document

This document is a single source of information for the implementation of SAP Promotion Management for Retail. It contains security and operation information, and is divided into the following main sections:

- Introduction with references to related documents and relevant SAP notes
- Upgrade Information
- Security Information
- Operation Information

> **i Note**
>
> You can find the most current version of this document on SAP Service Marketplace at service.sap.com/instguides .
>
> We strongly recommend that you use the document available there. The guide will be updated according to updates of the software.

Prerequisites

Important SAP Notes

Read the following SAP notes *before* you start installation. These SAP notes contain the most recent information on the installation as well as corrections to the installation documentation.

Make sure that you have the up-to-date version of each SAP Note, which you can find in the SAP Service Marketplace at the internet address: service.sap.com/notes

Table 2

SAP Note Number	Title	Description
2026580	Release strategy for the ABAP add-on RTLPROMO	This SAP Note contains information about planning the installation and upgrades of the ABAP add-on [Add-on].

Information on the SAP Marketplace

Information on the following areas is available on the SAP Marketplace:

Table 3

Description	Internet Address	Title
SAP HANA	help.sap.com/hana_appliance	SAP HANA Platform
SAP NetWeaver	help.sap.com/nw_platform	SAP NetWeaver 7.4

Information on SAP Customer Activity Repository

SAP Promotion Management for Retail is installed on top of SAP Customer Activity Repository. As such, refer to the documentation included with SAP Customer Activity Repository, in particular the following:

Table 4

Documentation	Location
SAP Customer Activity Repository Installation Guide	▶ service.sap.com/instguides 🔗 > *Industry Solutions* > *Industry Solution Guides* > *SAP for Retail* > *SAP Customer Activity Repository* > ◀
SAP Customer Activity Repository Application Operations Guide	▶ service.sap.com/instguides 🔗 > *Industry Solutions* > *Industry Solution Guides* > *SAP for Retail* > *SAP Customer Activity Repository* ◀
SAP Customer Activity Repository Security Guide	▶ service.sap.com/instguides 🔗 > *Industry Solutions* > *Industry Solution Guides* > *SAP for Retail* > *SAP Customer Activity Repository* ◀
DDF Administrator's Guide	▶ service.sap.com/instguides 🔗 > *Industry Solutions* > *Industry Solution Guides* > *SAP for Retail* > *SAP Customer Activity Repository* ◀

Further Useful Links

Table 5

Description	Internet Address	Title
SAP Notes	service.sap.com/notes 🔗	Search for SAP Notes and SAP Knowledge Base Articles
Released platforms	service.sap.com/platforms 🔗	Platform and Technology Information Center
System sizing	service.sap.com/sizing 🔗	Quick Sizer tool. Note that the sizing depends on the consuming application.
Front-end installation	service.sap.com/instguides 🔗	Front End Installation Guide
Security	service.sap.com/security 🔗	SAP Security Guides

Naming Conventions

Throughout this document the following naming conventions apply.

Table 6

Term	Description
Common Installation Guide	Common Installation Guide for SAP Customer Activity Repository 2.0, SAP Assortment Planning for Retail 1.0, SAP Promotion Management for Retail 8.1. You can find this guide on SAP Service Marketplace at ▶ service.sap.com/instguides 🔗 > *Installation & Upgrade Guides* > *Industry Solutions* > *Industry Solution Guides* > *SAP for Retail* > *SAP Customer Activity Repository* ◀.

Term	Description
Common Master Guide	Common Master Guide for SAP Customer Activity Repository 2.0, SAP Assortment Planning for Retail 1.0, SAP Promotion Management for Retail 8.1.
	You can find this guide on SAP Service Marketplace at
	service.sap.com/instguides ↪ ❯ *Installation & Upgrade Guides* ❯ *Industry Solutions* ❯ *Industry Solution Guides* ❯ *SAP for Retail* ❯ *SAP Customer Activity Repository* ❯.
Common Upgrade Guide	Common Upgrade Guide for SAP Customer Activity Repository 2.0, SAP Assortment Planning for Retail 1.0, SAP Promotion Management for Retail 8.1.
	You can find this guide on SAP Service Marketplace at
	service.sap.com/instguides ↪ ❯ *Installation & Upgrade Guides* ❯ *Industry Solutions* ❯ *Industry Solution Guides* ❯ *SAP for Retail* ❯ *SAP Customer Activity Repository* ❯.

Installation and Configuration

For information on planning and installation of SAP Promotion Management for Retail, see the *Common Installation Guide*.

For information on configuring SAP Promotion Management for Retail see the *Common Master Guide*.

For more information in upgrading SAP Promotion Management for Retail, see the *Common Upgrade Guide*.

Related Information

For more information about implementation topics not covered in this guide, see the following content on SAP Service Marketplace:

Table 7

Content	Location on SAP Service Marketplace
Latest versions of installation and upgrade guides	service.sap.com/instguides ↪
Sizing, calculation of hardware requirements — such as CPU, disk and memory resource — with the Quick Sizer tool	service.sap.com/quicksizer ↪
Released platforms and technology-related topics such as maintenance strategies and language support	service.sap.com/platforms ↪ To access the Platform Availability Matrix directly, enter service.sap.com/pam ↪
Network Security	service.sap.com/securityguide ↪
High Availability	www.sdn.sap.com/irj/sdn/ha ↪
Performance	service.sap.com/performance ↪
Information about Support Package Stacks, latest software versions and patch level requirements	service.sap.com/sp-stacks ↪
Information about Unicode technology	www.sdn.sap.com/irj/sdn/i18n ↪

Further Useful Links

The following table lists further useful links on SAP Service Marketplace:

Table 8

Content	Location on SAP Service Marketplace
Information about creating error messages	service.sap.com/messages
SAP Notes search	service.sap.com/notes
SAP Software Distribution Center (software download and ordering of software)	service.sap.com/swdc
SAP Online Knowledge Products (OKPs) — role-specific learning maps	service.sap.com/rkt

CUSTOMER

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SAP Promotion Management for Retail 8.1 FP1
Getting Started

2   SAP Promotion Management for Retail Upgrade and Migration

Prerequisites

- You have upgraded to SAP Customer Activity Repository 2.0.
- You have migrated from Demand Management Foundation (DMF) to Demand Data Foundation (DDF) and Unified Demand Forecast (UDF)

    For more information see *Preparation* [external document].
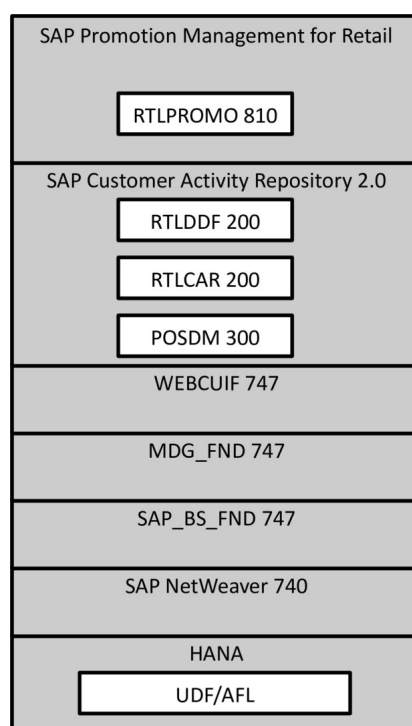
Figure 1: Component Overview

Procedure

The Promotions server (component `RTLPROMO`) contains all necessary ABAP classes and libraries required for the promotions processing required by SAP Promotion Management for Retail. You can use the SAP Add-on Installation Tool (transaction `SAINT`) to install the component.

> **i Note**
>
> For complete information on `SAINT` see: ▶ *SAP Service Marketplace* ❯ *SAP Support Portal* ❯ *Release & Upgrade Info* ❯ *Installation and Upgrade Guides* ❯ *Industry Solutions* ❯ *Add-On Components* ❯ *SAINT Documentation* ❯

To upgrade from SAP Promotion Management for Retail 8.0 on SAP Customer Activity Repository 1.0 to SAP Promotion Management for Retail 8.1 on SAP Customer Activity Repository 2.0 you must:

1. Log on to your ABAP system.
2. Upgrade from `RTLPROMO 801` to component `RTLPROMO 810` using transaction `SAINT` as described in SAP Note 2026580 .

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SAP Promotion Management for Retail 8.1 FP1
SAP Promotion Management for Retail Upgrade and Migration

3 Security Information

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 on your system should not result in loss of information or processing time. These demands on security apply likewise to SAP Promotion Management (SAP PMR). To assist you in securing SAP PMR, we provide this security information.

3.1 Fundamental Security Guide

SAP Promotion Management for Retail is based on the SAP NetWeaver technology platform. Therefore, the corresponding security guides also apply to SAP Promotion Management for Retail.

Table 9: Fundamental Security Guides

Scenario, Application, or Component Security Guide	Most Relevant Sections or Specific Restrictions
SAP NetWeaver Security Guide	� help.sap.com/mw_platform 👉 〉 *Information* 〉 *Security Guide* 〗
SAP NetWeaver Application Server AS ABAP Security Guide	▶ help.sap.com/nw_platform 👉 〉 *Security Information* 〉 *SAP NetWeaver Security Guide* 〉 *Security Guides for SAP NetWeaver Functional Units* 〉 *Security Guides for the Application Server* 〉 *Security Guides for the AS ABAP* 〉 *SAP NetWeaver* 〉 *Application Server ABAP Security Guide* 〗

For a complete list of the available SAP Security Guides, see SAP Service Marketplace at service.sap.com/securityguide 👉 .

3.2 User Administration and Authentication

SAP Promotion Management for Retail uses the user management and authentication mechanisms provided by SAP NetWeaver, in particular, the SAP NetWeaver Application Server ABAP and Java. Therefore, the security recommendations and guidelines for user administration and authentication per the SAP NetWeaver Application Server ABAP Security Guide and the SAP NetWeaver Application Server Java Security Guide also apply to SAP Promotion Management for Retail.

Features

User Management

User management for SAP Promotion Management for Retail uses the mechanisms provided with the SAP NetWeaver Application Server component (ABAP and Java), for example, tools, user types, and password

policies. For an overview of how these mechanisms apply to SAP Promotion Management for Retail, see the following sections.

User Administration Tools

The following table lists useful information for user management tools:

Table 10

Tool	Most Relevant Sections	Prerequisites
User and role maintenance with SAP NetWeaver AS ABAP (Transactions SU01, PFCG)	▶ help.sap.com/nw_platform ↗ ❯ *Security Information* ❯ *SAP NetWeaver Security Guid* ❯ *Security Guides for SAP NetWeaver Functional Units* ❯ *Security Guides for the Application Server* ❯ *Security Guides for the AS ABAP* ❯ *SAP NetWeaver Application Server ABAP Security Guide* ❯ *AS ABAP Authorization Concept* ❯	SAP NetWeaver Application Server ABAP should be running.

User Types

It is necessary to specify different security policies for different types of users. For example, your policy may specify that individual users who perform tasks interactively have to 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 Promotion Management for Retail include:

- Individual Users
  - Dialog users are used for SAP GUI for Windows or RFC connections
  - Internet users are used for same policies apply as for dialog users, but used for internet connections
- Technical users:
  - Communication user type: used for dialog-free communication through external RFC calls
  - System and background user type: used for background processing and communication within the system, such as, running scheduled inbound/outbound dispatcher jobs

For more information about these user types, see topic *User Types* in the *User Authentication* structure in the SAP NetWeaver Application ABAP Security Guide.

Standard Users

SAP PMR does not require specialized standard users. SAP Promotion Management for Retail indirectly uses SAP NetWeaver standard users.

For more information about these standard users, see topic *Protecting Standard Users* in the *User Administration* structure in the SAP NetWeaver Application ABAP Security Guide.

Integration into Single Sign-On Environments

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

For more information about the available authentication mechanisms, see topic User Authentication and Single Sign-On in the User Authentication structure in the SAP NetWeaver Application Server ABAP Security Guide.

Secure Network Communications (SNC)

SNC is available for user authentication and provides for an SSO environment when using the SAP GUI for Windows or remote function calls.

For more information, see ▶ *help.sap.com/* ↪ ▶ *SAP NetWeaver* ▶ *SAP NetWeaver 7.0 (2004s)* ▶ *SAP NetWeaver 7.0 Library.* ◀

Select a language and then choose ▶ *Administrator's Guide* ▶ *SAP NetWeaver Security Guide* ▶ *Security Guides for SAP NetWeaver According to Usage Types* ▶ *Security Guide for Usage Type AS* ▶ *SAP NetWeaver Application Server ABAP Security Guide* ▶ *User Authentication* ▶ *Authentication and Single Sign-On* ▶ *Secure Network Communications (SNC).* ◀

SAP Logon Tickets

SAP Promotion Management for Retail supports the use of logon tickets for SSO when using a Web browser as the front-end client. In this case, users can be issued a logon ticket after they have authenticated themselves with the initial SAP system. The ticket can then be submitted to other systems (SAP or external systems) as an authentication token. The user does not need to enter a user ID or password for authentication but can access the system directly after the system has checked the logon ticket.

SNC is available for user authentication and provides for an SSO environment when using the SAP GUI for Windows or remote function calls.

For more information, see ▶ *help.sap.com/* ↪ ▶ *SAP NetWeaver* ▶ *SAP NetWeaver 7.4* ▶ *SAP NetWeaver 7.0 Library.* ◀

Select a language and then choose ▶ *Administrator's Guide* ▶ *SAP NetWeaver Security Guide* ▶ *Security Guides for SAP NetWeaver According to Usage Types* ▶ *Security Guide for Usage Type AS* ▶ *SAP NetWeaver Application Server ABAP Security Guide* ▶ *User Authentication* ▶ *Authentication and Single Sign-On* ▶ *Logon Tickets* ◀

Client Certificates

As an alternative to user authentication using a user ID and passwords, users using a Web browser as a front-end client can also provide X.509 client certificates to use for authentication. In this case, user authentication is performed on the Web server using the secure sockets layer protocol (SSL protocol) and no passwords have to be transferred. User authorizations are valid in accordance with the authorization concept in the SAP system.

For more information, see ▶ *help.sap.com/* ↪ ▶ *SAP NetWeaver* ▶ *SAP NetWeaver 7.4* ▶ *SAP NetWeaver 7.4 Library.* ◀

Select a language and then choose ▶ *Administrator's Guide* ▶ *SAP NetWeaver Security Guide* ▶ *Security Guides for SAP NetWeaver According to Usage Types* ▶ *Security Guide for Usage Type AS* ▶ *SAP NetWeaver Application Server ABAP Security Guide* ▶ *User Authentication* ▶ *Authentication and Single Sign-On* ▶ *Client Certificates.* ◀

SAP Promotion Management uses the authorization concept provided by SAP NetWeaver. Therefore, the recommendations and guidelines for authorizations as described in the *SAP NetWeaver Application Server ABAP Security Guide* apply to SAP Promotion Management for Retail.

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

> **i Note**
>
> For more information, see ▶ *help.sap.com/* ↪ ▶ *SAP NetWeaver* ▶ *SAP NetWeaver 7.4* ▶ *SAP NetWeaver 7.4 Library* ◀
>
> Select a language and then choose ▶ *Administrator's Guide* ▶ *SAP NetWeaver Security Guide* ▶ *User Administration and Authentication.* ◀

For more information about the available authentication mechanisms, see topic User Authentication and Single Sign-On in the User Authentication structure in the SAP NetWeaver Application Server ABAP Security Guide.

Logging and Tracing

- SAP Promotion Management for Retail relies on the logging and tracing mechanisms of SAP NetWeaver. For more information on logging and tracing, see▶ help.sap.com/nw74 ↪ ❯ *Security Information* ❯ *Security Guides* ❯ *Security Guides for SAP NetWeaver Functional Units* ❯ *Security Guides for the Application Server* ❯ *Security Guides for AS ABAP* ❯ *SAP NetWeaver Application Server ABAP Security Guide* ❯ *Audit and Logging.* ◀

- SAP Promotion Management for Retail uses the exception workbench from the Demand Data Foundation (DDF) Administrator's Guide: ▶ service.sap.com/instguides ↪ ❯ *Industry Solutions* ❯ *Industry Solutions Guides* ❯ *SAP for Retail* ❯ *SAP Customer Activity Repository* ◀

Logging and Tracing for Customizing Changes

To evaluate changes to the individual SAP Promotion Planning for Retail Customizing tables, use the `SCU3` transaction to activate the logging of changes to table data.

Troubleshooting

To view promotions in ERP for offers which are successfully transferred within NetWeaver Business Client:

- Create a `PFCG` role in ERP having only transaction code `WAK3` assigned in the menu. The RFC connection needs to be mentioned for correct role creation.

- Import this role to a `PFCG` role created in SAP Promotion Management for Retail.

- In SAP Promotion Management for Retail, link the imported role to `OBN Offer.DisplayErpPromotion` (Method: `DisplayErpPromotion of Business Object /PRM/ISROF`).

  The selection screen should be skipped with the following parameter assignment `WAKHD-AKTNR = {WAKHD-AKTNR}`.

- If required, define a trusted system relationship between the SAP Promotion Management for Retail system and the connected ERP system by following the steps mentioned in the SAP note 128447 ↪. Ensure that the user for invoking the *Promotion Display* transaction in ERP has the right authorizations.

- If the above step is skipped, then there would be a need to logon to the remote ERP system with a valid user and password.

For more information see SAP Note 1550323 ↪.

3.3   Authorizations

SAP Promotion Management for Retail uses the user management and authentication mechanisms provided with the SAP NetWeaver platform, in particular the SAP NetWeaver Application Server ABAP and Java. Therefore, the security recommendations and guidelines for user administration and authentication as described in the SAP NetWeaver Application Server ABAP Security Guide and SAP NetWeaver Application Server Java Security Guide also apply to SAP Promotion Management for Retail.

Prerequisites

As a security requirement, follow the instructions in the following see the following SAP Notes:

Table 11

SAP Note Number	Description
1717945 🔗	Portal Logoff Does Not Logoff the Backend When Using HTTP Security Session Management
1471069 🔗	Security Note - ABAP Security Sessions and SAML 2.0
1490105 🔗	Closing All Portal Session Windows

Features

The table lists standard roles used by Demand Data Foundation (DDF):

Table 12

Role	Description
SAP_ISR_DMF_MASTER	Includes access to the following applications: • Product Groups • Placeholder Products • Location Groups • Define Area of Responsibility • Search for Schedule Jobs • Schedule Model and Forecasts • Monitor Imports • Configure Load Balancing • Monitor Exceptions • Monitor Compressed Data • Product • Search Placeholder Products • Transportation Lanes • Maintain Product Locations • Remove Time Series • Check Mass Maintenance
SAP_ISR_DMF_READONLY	Includes access to the following applications: • Product Groups • Placeholder Products • Location Groups • Define Area of Responsibility • Search for Schedule Jobs • Schedule Model and Forecasts

Role	Description
	• Monitor Imports
	• Configure Load Balancing
	• Monitor Exceptions
	• Monitor Compressed Data
	• Product
	• Search Placeholder Products
	• Transportation Lanes
	• Maintain Product Locations
	• Remove Time Series
	• Check Mass Maintenance

The table lists standard roles used by SAP Promotion Management for Retail:

Table 13

Role	Description
SAP_ISR_PROMO_ADMINISTRATION	Includes access to all SAP Promotion Management for Retail applications and authorizations.
SAP_ISR_PROMO_MARKETING	Includes access to the following applications: • Campaign Schedule • Event Schedule • Offer Schedule • Planning Workbench • Vendor Fund Maintenance • Product Groups • Placeholder Products • Location Groups • Templates • Define Area of Responsibility • Schedule Jobs • Monitor Imports • Monitor Exceptions • Manage Images • Products • Placeholder Products • Transportation Lanes • Product Locations • Remove Time Series • Check Mass Maintenance
SAP_ISR_PROMO_MERCHANDISE	Includes access to the following applications: • Campaign Schedule

Role	Description
	• Event Schedule
	• Offer Schedule
	• Planning Workbench
	• Vendor Fund Maintenance
	• Product Groups
	• Placeholder Products
	• Location Groups
	• Templates
	• Define Area of Responsibility
	• Schedule Jobs
	• Schedule Model and Forecasts
	• Monitor Imports
	• Monitor Exceptions
	• Manage Images
	• Products
	• Placeholder Products
	• Transportation Lanes
	• Product Locations
SAP_ISR_PROMO_ADVERTISING	Includes access to the following applications: • Campaign Schedule • Event Schedule • Planning Workbench • Location Groups • Templates • Define Area of Responsibility • Manage Images
SAP_ISR_PROMO_READONLY	Includes access to all SAP Promotion Management for Retail applications with read-only authorization

Standard Authorization Objects

The table shows the security-relevant authorization objects that are used by SAP Promotion Management for Retail.

Table 14: Standard Authorization Objects

Authorization Object	Field	Value	Description
CA_POWL	POWL_APPID POWL_CAT POWL_LSEL POWL_QUERY POWL_RA_AL		Authorization for Personal Object Worklist (POWL) menu function for the DDF POWL applications.

Authorization Object	Field	Value	Description
	POWL_TABLE		
S_START	Object Name Object Type Program ID	/DMF/* and /PRM/* POWL WDYA R3TR	The authorization object S_START is used during the start authorization check for particular TADIR objects, such as Web Dynpro applications. Note that you must not use this object directly in your own coding. The object can only be used through the class CL_START_AUTH_CHECK.The concept of the start authorization check for program objects with object catalog entries is described in SAP Note 1413011
S_TCODE		/DMF/TS_DELETE RSM37 SM37	Transaction Code Check at Transaction Start
/PRM/CMPN	ACTV	01 Create 06 Delete 06 Delete D1 Copy	Authorization for Campaign Maintenance application. 01 allows user to create campaign. 06 allows user to delete an event. 23 allows user to edit an event. D1 with 01 allows a user to create a campaign with reference.
/PRM/OFFR	ACTVT	01 Create or generate 02 Change 03 Display 06 Delete 23 Maintain 61 Export 75 Remove 78 Assign D1 Copy	Offer authorization object. 01 enables the *Create Without Reference* button. If user has only 01 authorization, all functionality is available except the authorization to assign attributes in create mode. 02 enables the *Update Status* and *Update* buttons. User can save offers. If user has only

Authorization Object	Field	Value	Description
			02 authorization, user cannot assign and remove attributes.
			06 allows user to delete an offer.
			23 allows user to create an offer in reference to a vendor fund; however, to save the offer, user must have either 01 or 02 authorization.
			61 enables the *Transfer* button.
			78 allows user to assign and remove attributes; however, to save, user must have either 01 or 02 authorization.
			D1 enables user to create with reference; however, to save the copied offer, user must also have either the 01 or 02 authorization.
/PRM/EVENT	ACTVT	01 Create 06 Delete 23 Maintain 43 Release 61 Export D1 Copy	Event authorization object. 01 allows user to create an event. 06 allows user to delete an event. 23 allows user to edit an event, deliver an event, and refresh offer financials. 43 allows user to transfer an event. 61 allows user to export an event. D1 with 01 allows user to create an event with reference to another event.
/PRM/VDRDL	ACTVT	01 Create 02 Change 06 Delete	Vendor deal authorization object. 01 allows user to create a vendor deal. 02 allows user to edit a vendor deal. 01 or 02 allows user to assign or unassign attributes to a vendor deal.

Authorization Object	Field	Value	Description
			06 allows user to delete a vendor deal.
/PRM/RM	ACTVT	01 Create 02 Maintain 06 Delete 10 Post D1 Copy	Representation management authorization object. 01 allows user to create a template. 02 allows user to edit a template. 06 allows user to delete a template. 10 allows user to post and unpost a template. D1 allows user to copy a template.

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.

Session Security Protection on the AS ABAP

To activate session security on the AS ABAP, set the corresponding profile parameters and activate the session security for the client using the SICF_SESSIONS transaction.

For more information, see *Activating HTTP Security Session Management on AS ABAP* in the *SAP NetWeaver Application Server ABAP* security guide.

More Information

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

Table 15

Content	Quick Link on the SAP Marketplace or SAP Developer Network (SDN)
Security	sdn.sap.com/irj/sdn/security
Security guides	service.sap.com/securityguide
Related SAP Notes	service.sap.com/notes service.sap.com/securitynotes
Released platforms	service.sap.com/pam
Network security	service.sap.com/securityguide

Content	Quick Link on the SAP Marketplace or SAP Developer Network (SDN)
SAP Solution Manager	service.sap.com/solutionmanager
SAP NetWeaver	sdn.sap.com/irj/sdn/netweaver

4 Operation Information

Designing, implementing, and running your SAP applications at peak performance 24 hours a day has never been more vital for your business success than now.

This section provides a starting point for managing, maintaining, and running your application optimally. It contains specific information for various tasks and lists the tools that you can use to implement them.

> **i Note**
>
> Adaptive Computing is a capability provided by SAP NetWeaver. Any component, for example SAP Promotion Management for Retail (SAP PMR), released on NetWeaver 4.6C or higher, can run within the NetWeaver adaptive framework.

4.1 Monitoring

Monitoring is an essential task in the management of SAP technology. Monitoring allows you to detect any irregularities or deviations from an ideal business process flow or to detect error situations concerning a core business process at an early stage.

SAP Promotion Management for Retail supports monitoring functions within the Demand Data Foundation (DDF) framework. DDF uses the SAP NetWeaver standard functions for monitoring. For more information about standard functions for monitoring, see the SAP NetWeaver Operations Guide.

Features

Alert Monitoring

Computing Center Management System (CCMS) is not supported for the `RTLPROMO_810` component.

Component-Specific Monitoring

DDF provides CCMS monitoring for the following processes:
- Model by product location
- Model by hierarchy
- Forecast by product location
- Forecast by hierarchy

The Monitor Tree Elements (MTEs) must be verified and configured for the following processes:
- `DMF_MODEL_PROCESSES_BY_HIER`
- `DMF_MODEL_PROCESSES_BY_PROD_LOC`
- `DMF_FORECAST_PROCESSES_BY_HIER`
- `DMF_FORECAST_PROCESSES_BY_PROD_LOC`

Monitoring Details

Exception Handling

DDF uses the exception handling framework to log errors that arise while running background processes. You can define the exception messages in the system before actual exception instances can be created. The exception definition is based on the general ABAP message concept. Each exception is identified by a combination of a message class and a message number. Each instance of an exception has a unique internal ID (message handle).

> **i Note**
>
> The following sub-objects do not use exception handling:
>
> - `/DMF/OFFER_PURGE`
> - `/DMF/PHP`
> - `/DMF/ENGINE`

Configuration of Exceptions

You can manage the exceptions in Customizing under ▶ *Cross-Application Components* ❯ *Demand Data Foundation* ❯ *Basic Settings* ❯ *Exception Management.* ❮

Configuration Data for High Level Exceptions

▶ *Cross-Application Components* ❯ *Demand Data Foundation* ❯ *Basic Settings* ❯ *Exception Management* ❯ *Maintain Configuration Data for High Level Exceptions.* ❮

You have the following customizing options:

- Assignment of business areas to exceptions
- Definition of exception priority
- Definition of message types
- Definition of validity period
- Definition of validity period

Configuration Data for Low Level Exceptions

You can define the priority of exceptions in Customizing under ▶ *Cross-Application Components* ❯ *Demand Data Foundation* ❯ *Basic Settings* ❯ *Exception Management* ❯ *Maintain Configuration Data for Low Level Exceptions.* ❮

Customer-Specific Replacement Messages

You can define the replacement of messages in Customizing under ▶ *Cross-Application Components* ❯ *Demand Data Foundation* ❯ *Basic Settings* ❯ *Exception Management* ❯ *Define Customer-Specific Replacement Messages.* ❮

Customizable Message Status

You can define the available exception status values in Customizing under ▶ *Cross-Application Components* ❯ *Demand Data Foundation* ❯ *Basic Settings* ❯ *Exception Management* ❯ *Define Customizable Message Status.* ❮

Monitoring of Exceptions

You use the *Monitor Exceptions* function to review and process the exceptions that have been generated from the batch processes

You have the following features:

- Flexible filtering of exceptions
- Overview the number of exceptions
- Perform additional filtering based on the business area, the context type, or the context instance (value)
- Display of result of the selected exceptions in a table grid.

- Display of exception details including associated low level exceptions for one highlighted exception

Housekeeping for Exceptions

You can have a high number of exceptions that occur during the system operation. We recommend that you perform a regular purging (deletion) of obsolete exceptions.

Monitor Compressed Data

You use the *Monitor Compressed Data* screen to view *Time Series* data. The system uses the *Compressed Data Management* (CDM) function as the storage engine for the *Time Series* data. This data is compressed to save space and ensure optimal database table performance, but compression prevents data from being read by the *Data Browser* function (transaction `SE16`).

Application Log

The *Application Log* function collects messages, exceptions, and errors, and displays them in a log. This log provides you with basic header information, a message long text, detailed information, and technical information.

SAP Promotion Management for Retail consumes the Demand Data Foundation APIs. Therefore, the following log objects under `/DMF/APPL` and sub-objects are used for logging:

- `/DMF/ENGINE`
- `/DMF/MERCH_PLAN`
- `/DMF/OFFER`
- `/DMF/OFFER_PURGE`
- `/DMF/PHP`

Setting the Trace Level

The trace level controls the amount and type of information that will appear in the trace file. The three levels are as follows:

- ERROR – the trace file will only contain information (and in fact will only be created) when an actual runtime error occurs during execution of modeling and/or forecasting.
- WARNING – the trace file will contain all information normally found at the error level, plus information relating to out-of-the-ordinary conditions that might signal a potential problem.
- INFO – the trace file will contain all information normally found at the warning level plus information about the functioning of each call to modeling or forecasting, even when there are no errors or warnings.

By default, the trace level is set to ERROR, so that no trace file is produced unless an error occurs. This is the recommended setting.

Changing the Trace Level for Modeling

1. Define the model profile in the Customizing profile under ▶ *Cross-Application Components* ▶ *Demand Data Foundation* ▶ *Modeling and Forecasting* ▶ *Maintain Forecast Profiles.* ❩
2. Select the modeling profile for which you wish to adjust the trace level, and then select the *Model Configuration* folder.
3. Enter the trace level in the *Modeling Parameter Settings* field as follows: `trace_level=<INFO| ERROR | WARNING>`. If this field contains additional settings, separate the settings with a semicolon.
4. Note that this text field can contain additional settings. If so, separate the settings using a semicolon.

Viewing the Trace Files

Each execution of modeling or forecasting is referred to as a task, and is assigned a unique 32-character identifier called a task ID. The system places the trace files for a given task in a folder named after the task ID. The name of the trace file for modeling is `cam.trc` and the name of the trace file for forecasting is `fcst.trc`.

By default, the system creates these task directories in the `DIR_HOME` folder. The trace files can be viewed either on the host system using transaction `AL11`.

Changing the Location of Trace Files

By default, no particular location is specified for the trace file results. As a result, the system produces the trace files in the current working directory of the running science process. The working directory is in the `DIR_HOME` folder.

1. Define the model profile in the Customizing activity for *Maintain Forecast Profiles*.

2. Select the modeling profile for which you wish to adjust the trace level, and then select the *Model Configuration* folder.

3. Enter the file location in the *Modeling Parameter Settings* field as follows: `log_directory=<location>`. The location must already exist and must be writable by the operating system user that runs the science process. If this field contains additional settings, separate the settings with a semicolon.

Workload Monitors

When instances of an object are sent from an external system to DDF via an inbound remote function call (RFC) or Enterprise Services, the data is stored in the staging tables.

The transfer of objects can be triggered by an initial load as well as by a delta load that transfers modified instances of an object. You can schedule the `/DMF/PROCESS_STAGING_TABLES` report as a batch job to move data from the staging tables into the corresponding object. The following table lists all interfaces and indicates the relationship between the master data object and its corresponding interface tables:

Table 16

Master Data Object	Interface Table	Description
Image Data	`DMF/MDIF_IMAGE`	Staging table for Image Header
	`DMF/MDIF_IMGTXT`	Staging table for Image Texts
Transportation Lane	`/DMF/MDIF_LANE`	Staging table for data of Transportation Lane
	`/DMF/MDIF_LANEPC`	Staging table for price data of Transportation Lane
	`/DMF/MDIF_LANETD`	Staging table for time dependent data of Transportation Lane
Location	`/DMF/MDIF_LOC`	Staging table for Location Header Data
	`/DMF/MDIF_LOCADR`	Staging table for Location Address Data
	`/DMF/MDIF_LOCASS`	Staging table for Location Hierarchy Assignment Data
	`/DMF/MDIF_LOCTXT`	Staging table for Location Text Data, including fax, telephone and URL
Location Hierarchy	`/DMF/MDIF_LOCH`	Staging table for Location Hierarchy Header Data

Master Data Object	Interface Table	Description
	/DMF/MDIF_LOCHAS	Staging table for Location Hierarchy Assignment Data
	/DMF/MDIF_LOCHN	Staging table for Location Hierarchy Node Data
	/DMF/MDIF_LOCHNT	Staging table for Location Hierarchy Node Text Data
	/DMF/MDIF_LOCHT	Staging table for Location Hierarchy Text Data
Product Location	/DMF/MDIF_PRLC	Staging table for Product Location Header Data
	/DMF/MDIF_PRLCCT	Staging table for Product Location time dependent Cost Data
	/DMF/MDIF_PRLCPR	Staging table for Product Location time dependent Price Data
	/DMF/MDIF_PRLCTD	Staging table for Product Location time dependent Data
Product	/DMF/MDIF_PROD	Staging table for Product Header Data
	/DMF/MDIF_PROASS	Staging table for Product Hierarchy Assignment Data
	/DMF/MDIF_PROTXT	Staging table for Product Description Data
	/DMF/MDIF_PROUOM	Staging table for Product Unit of Measure Data
Product Hierarchy	/DMF/MDIF_PROH	Staging table for Product Hierarchy Header Data
	/DMF/MDIF_PROHN	Staging table for Product Hierarchy Node Data
	/DMF/MDIF_PROHNT	Staging table for Product Hierarchy Node Text Data
	/DMF/MDIF_PROHTX	Staging table for Product Hierarchy Header Text Data

Table 17

Technical Data Object	Interface Table	Description
Generic Time Series	/DMF/TS_GENERIC	Staging table for Generic Time Series Data
Inventory Data	/DMF/OPIF_INVENT	Staging table for Inventory Data
Sales Data	/DMF/BI_SALES	Staging table for BI Sales Data

Technical Data Object	Interface Table	Description
Store Traffic	`/DMF/BI_ST_TRAFF`	Staging table for BI Store Traffic Data

The following remote function modules (RFCs) can be called to write data into staging tables:

Table 18

Master Data Object	Remote Function Module
Image Data	`/DMF/MDIF_IMAGE_DATA_INBOUND`
Transportation Lane	`/DMF/MDIF_LANE_INBOUND`
Location	`/DMF/MDIF_LOCATION_INBOUND`
Location Hierarchy	`/DMF/MDIF_LOC_HIER_INBOUND`
Product Location	`/DMF/MDIF_PROD_LOC_INBOUND`
Product	`/DMF/MDIF_PRODUCT_INBOUND`
Product Hierarchy	`/DMF/MDIF_PROD_HIER_INBOUND`

Table 19

Transactional Data Object	Remote Function Module
Generic Time Series	`/DMF/TS_GENERIC_INBOUND`
Inventory Data	`/DMF/OPIF_INVENTORY_INBOUND`
Vendor Fund	`/DMF/OPIF_VENDOR_FUND_INBOUND`
Sales Data	`/DMF/BI_SALES_DATA`
Store Traffic	`/DMF/BI_SALES_DATA`

You can schedule the `/DMF/PROCESS_STAGING_TABLES` report as a batch job to move data from the staging tables into the corresponding object.

Data Consistency

The external data providers that write data into the staging tables can additionally provide a high resolution time stamp when an RFC is called. Every data record within a staging table has a high resolution time stamp assigned (`EXT_KEY_TST` field) to it. This high resolution time stamp is part of the key of the data record within the staging table. Therefore, different records for the same object can exist at a point in time within the staging table. The processing of the data from the staging table into the corresponding business object ensures that the data of the newest data record within a staging table is processed.

Authorizations

To ensure the data consistency, only the users with authorizations can load the data into staging tables. The system performs authorization checks on the following function groups:

- `/DMF/BI_SALES_INBOUND`
- `/DMF/MDIF_IMAGE_DATA`
- `/DMF/MDIF_LANE`
- `/DMF/MDIF_LOCATION`

- `/DMF/MDIF_LOC_HIER`
- `/DMF/MDIF_PRODUCT`
- `/DMF/MDIF_PROD_HIER`
- `/DMF/MDIF_PROD_LOC`
- `/DMF/OPIF_INVENTORY`
- `/DMF/TS_GENERIC_INBOUND`

4.2   Management of SAP Promotion Management for Retail

SAP provides an infrastructure to help your technical support consultants and system administrators manage the SAP components, as well as complete all technical administration and operation tasks.

For more information, see the technical operations guide for SAP NetWeaver in the SAP Help Portal at

▶ help.sap.com 🔗 ❯ *System Administration and Maintenance Information* ❯ *Technical Operations Guide.* ❚

Features

Starting and Stopping

When you start SAP NetWeaver, you start the system database, the application servers, and the respective processes of which the system consists.

For more information, see the technical operations guide for SAP NetWeaver in the SAP Help Portal at

▶ help.sap.com 🔗 ❯ *System Administration and Maintenance Information* ❯ *Technical Operations Guide (English)* ❯ *General Administration Tasks* ❯ *Starting and Stopping SAP NetWeaver ABAP and Java.* ❚

Backup and Restore

You 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. You specify in your strategy that the normal data and the backup data are stored in separate physical locations, so that you do not lose both types of data in a disaster.

Scheduled Periodic Tasks

You can automatically schedule import tasks using the `/DMF/PROCESS_STAGING_TABLES` report in the `/DMF/EXT_IF_COMMON` package.

Required Manual Periodic Tasks

This section describes all manual tasks required to run periodically to keep the application running smoothly over time. A manual task needs a person to execute it. A scheduled task can be automated using a task scheduler program. Such tasks may be required on the component level and are therefore relevant in each scenario that uses the component. Other tasks may be relevant for certain business scenarios only. It is important that you monitor the successful execution of these tasks on a regular basis.

Table 20: **Manual tasks for DDF**

Task	Tool Supporting this Task	Recommended Frequency	Detailed Description
Purge Data	Report `/DMF/PURGE_AGENT`	As required	See the `/DMF/PURGE_AGENT` report documentation (transaction code `SE38`).
Delete Obsolete Time Series Data	Report `/DMF/TS_DELETE`	As required	You can select the data to be deleted by location and product using the key figure parameter (`KPRM`). The available time series types include: • Universal (UN) • Location Universal (UL) • Point of Sale (PS) • Syndicate Data (SY)
Delete Obsolete Exception Message Data	Program `/DMF/PURGE_EWB_MESSAGES`	As required	Execute or schedule the program. No parameter is required by this program. The purging is driven by the message configuration and the executed deletions in the UI.
Consolidate Time Series Data	Program `/DMF/TS_BUFFER_CLEAN`	As required	Use this function to clear the Time Series buffer to propagate the data to the final persistence engine in the Compressed Data Management module. Execute the program for each KPRM in which the Buffer Threshold parameter is greater than 0.

Load Balancing

The application uses the standard function of SAP NetWeaver for logon and load balancing.

For modeling and forecasting services, the maximum number of products and maximum number of demand group locations is essential.

During workload processing, the system breaks a single operation or service into many smaller tasks. It then runs each of these tasks as separate dialog work processes (task requests or screen changes), up to the configured maximum number of work processes. Since the system attempts to run this maximum number of processes in parallel, you use load balancing to help more evenly distribute workload within the system.

High Availability

The application is based on SAP NetWeaver technology; the high availability considerations that apply to SAP NetWeaver, such as increasing system availability, improving performance, and eliminating unplanned downtime, also apply to PMR.

For more information, see the *SAP High Availability* in the SAP Help Portal at help.sap.com/nw_platform *Application Help* > *Function-Oriented View* > *English* > *Solution Life Cycle Management* > *SAP High Availability.*

Support Desk Management

Support Desk Management allows 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

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, then you need to 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 login.

Problem Message Handover

To create SAP support messages for your installation, you must specify an application component.

For SAP Assortment Planning fro Retail, you can specify the CA-DMF-PRM application component.

Typographic Conventions

Table 21

Example	Description
\<Example\>	Angle brackets indicate that you replace these words or characters with appropriate entries to make entries in the system, for example, "Enter your **\<User Name\>**".
▶ *Example* ▶ *Example* ▶	Arrows separating the parts of a navigation path, for example, menu options
Example	Emphasized words or expressions
Example	Words or characters that you enter in the system exactly as they appear in the documentation
www.sap.com 🔗	Textual cross-references to an internet address
/example	Quicklinks added to the internet address of a homepage to enable quick access to specific content on the Web
123456 🔗	Hyperlink to an SAP Note, for example, SAP Note 123456 🔗
Example	• Words or characters quoted from the screen. These include field labels, screen titles, pushbutton labels, menu names, and menu options. • Cross-references to other documentation or published works
`Example`	• Output on the screen following a user action, for example, messages • Source code or syntax quoted directly from a program • File and directory names and their paths, names of variables and parameters, and names of installation, upgrade, and database tools
`EXAMPLE`	Technical names of system objects. These include report names, program names, transaction codes, database table names, and key concepts of a programming language when they are surrounded by body text, for example, `SELECT` and `INCLUDE`
`EXAMPLE`	Keys on the keyboard

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