Installation and Configuration Guide | PUBLIC
SAP Marketing
2021-12-17

Installation and Configuration Guide

THE BEST RUN SAP

Content

1 Introduction

> **i Note**
>
> Before you start, make sure you have the required version of this document. You can find the available versions at the following location: https://help.sap.com/mkt-op

This installation guide describes how to install the high-performance application SAP Marketing on premise. The application can also be operated in the SAP HANA Enterprise Cloud, under the name SAP Marketing Cloud with a separate license.

Document History

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

Document History

Date	Description
2019-09-23-	Initial version for SAP Marketing 1909
2019-10-8	Chapters adapted: • Google Analytics Integration (Optional) [page 76] • Setting up Integration with Google Ads Campaigns (Optional) [page 160]

1.1 About this Document

This guide applies to consultants and system administrators who intend to install one or more of the components of SAP Marketing. It covers both the technical side (how installation is done) and the functional side (for example, customizing activities).

- **Constraints**:
  This guide provides you with the main application-specific installation and configuration steps. The installation and configuration of the underlying SAP HANA platform and the required SAP S/4HANA foundation are not described in this installation guide in particular, but in separate documentation, referenced where necessary.
- **Considerations**:
  - The sections and instructions in this guide are relevant for all above mentioned components unless otherwise expressly indicated.

- Access to the separate solutions is managed via the corresponding authorization roles. For more information about activating roles, see Generating Authorization Profiles for the User Interface [page 60].
- Before starting the installation make sure that you are aware of all required installation steps that have to be executed before the actual installation of the application. The prerequisites are mentioned in this document.

> **i Note**
>
> In the PDF version of this guide, some links to certain topics may be missing. All links are available in the HTML version of the guide.

1.2 Feedback

We'd really like to know what you think of the quality, structure or content of this guide. Please send your feedback to us at mailto:feedback4sapmarketing@sap.com.

1.3 Licenses of SAP Marketing

SAP Marketing contains the following licenses that can be purchased separately:

- SAP Marketing Data Management (mandatory)
- SAP Marketing Insight
- SAP Marketing Segmentation
- SAP Marketing Recommendation
- SAP Marketing Planning
- SAP Marketing Acquisition

Any licensing of SAP Marketing includes the marketing platform SAP Marketing Data Management. In addition, the common objects such as Target Group, Campaign, Interaction, Export Definition, Predictive Model, or User Lists are always available regardless of the purchased license.

For a brief description of the SAP Marketing licenses and the corresponding applications, see Applications and Price List Components on the SAP Help Portal at https://help.sap.com/mkt-op ▶ *Application Help* ▶ *Application Help SAP Marketing* ▶.

1.4 Integration

SAP Marketing is based on the SAP HANA appliance software, in particular the SAP HANA database, and the SAP S/4HANA Foundation.

The SAP HANA database must be available and configured with the latest revision of the current support package before starting the actual installation of SAP Marketing. You can check the exact support package and required revision levels in the *Preconditions* section of Release Information Note 1885803.

For more information about how to receive the latest revision of the SAP HANA database, see section Updating an SAP HANA System Landscape in the *SAP HANA Master Guide* on the SAP Help Portal at:

http://help.sap.com/hana_platform **Select the required version in the "Version" field** *Installation and Upgrade* *SAP HANA Master Guide* *SAP HANA Implementation and Operation* *Updating an SAP HANA System Landscape*

In addition, if you plan to use SAP ERP and/or SAP CRM as source system to operate your marketing, sales, and/or service business, the following releases are proposed for the different solutions:

SAP Marketing License	SAP ERP	SAP CRM
SAP Marketing Insight	6.0 or higher (mandatory)	7.01 (SP04 plus SAP Note 1995798) or higher (optional)
SAP Marketing Segmentation on SAP ERP Accounts	6.0 or higher (mandatory)	7.01 (SP04 plus SAP Note 1995798) or higher (optional)
SAP Marketing Segmentation on SAP CRM Business Partners	6.0 or higher (optional)	7.01 (SP04 plus SAP Note 1995798) or higher (mandatory)
SAP Marketing Data Management	6.0 or higher (optional)	7.01 (SP04 plus SAP Note 1995798) or higher (optional)
SAP Marketing Recommendation	6.0 or higher (mandatory)	

The solutions SAP Marketing Acquisition and SAP Marketing Planning do not use SAP ERP or SAP CRM data.

Middleware Recommendations

We recommend, to use one of the following integration solutions as middleware to integrate external systems with SAP Marketing on a project-basis:

- SAP Cloud Platform Integration (CPI)
- SAP Process Integration (PI)
- SAP Data Services for NON-SAP applications

Alternatively, you can use the direct master data integration using SAP Landscape Transformation (LT) for SAP ERP and SAP CRM (not supported for S/4HANA).

Browser Recommendations

For a recommendation concerning the appropriate browser platform to run the application, refer to the Product Availability Matrix (PAM) at http://support.sap.com/pam. In the PAM, enter `SAP MARKETING 1909` in the

"Find Product Versions" field in the upper right corner and select the corresponding entry in the search results. In the *Details for Product Version SAP MARKETING 1909*, select tab *Technical Release Information* and then *Web Browser Platforms*.

1.5 SAP Notes for Installation

The Release Information Note (RIN) contains general installation information concerning SAP Marketing.

You find the RIN under https://launchpad.support.sap.com/#/mynotes. Enter the RIN number 1885803 in the corresponding field in the upper right corner of the screen.

> **i Note**
>
> Ensure that you have carefully read the RIN before you implement the included SAP Notes. The RIN contains information about the exact point in time for the implementation of every included SAP Note:
>
> - Before the import of the support package
> - Before executing the technical configuration
> - After executing the technical configuration
> - SAP Note only relevant for a certain solution scope

If there is additional information or updates to the installation process described in this installation and configuration guide, you find the corresponding information in the SAP Notes mentioned below in the table.

Make sure that you have the up-to-date version of each SAP Note, which you can find on the SAP Support Portal at: https://launchpad.support.sap.com/#/mynotes.

SAP Note Number	Title	Description
Release Information Note 1885803	RIN SAP Marketing (formerly SAP Customer Engagement Intelligence)	Contains information and references in the context of applying SAP Marketing
Note 2076331	Follow Up Tasks after System Copy	Contains information about the actions to be carried out after system copy

2 Technical System Landscape

SAP Marketing is based on the following components:

- SAP HANA 2.0, SPS04 or higher
- SAP S/4HANA Foundation 1909, including the following components:
  - ABAP Platform 1909 (ABAP PLATFORM 1909)
  - SAP Business Suite Foundation (S4FND 104)
  - SAP MDG Foundation (MDG FOUNDATION 804 SP00 or higher)

Full Set of Included Components

Product	**SAP Marketing**
Release	1909
Based On	• HANA RULES FRAMEWORK 1.0 SP11 PL8+ • SAP HANA 2.0, SPS04 Rev 42 - APL 4 • XI Content SAP Marketing 150 SP00 • UICUAN 150 SP00 • SAP_CUAN 150 SP00 • UIBAS001 500 SP00 • MDG FOUNDATION 804 SP00 • S4FND 104 • ABAP PLATFORM 1909 incl. SAP BASIS 7.54 and SAP_UI 7.54 1.65 (Version 1.65 will be included by default, but might be needed to be upgraded to a higher version per SAP Note) • HANA 2.0 SPS04 - AFL • HANA 2.0 SPS04 – Revision 42
Documentation Published	September 23, 2019

> **i Note**
>
> Most applications within SAP Marketing such as *Customer Journey Insight*, are SAP Fiori apps. All SAP Fiori apps are directly deployed on the SAP Marketing server.

All these components are embedded in the SAP Fiori launchpad that is based on HTML5 (SAPUI5). Some administrative tasks, such as Customizing tasks, are also based on the traditional SAP GUI technology, which is not explicitly shown in Figure 1. Figure 1 gives an example of a possible technical system landscape for SAP Marketing, which includes the use of SAP ERP and SAP CRM data.

The communication of the front-end components with the back end, which is the ABAP Platform 1909 (7.54 SP00), is based on HTTPS. The Web applications are embedded in a shell that ensures secure session management. All servers run behind the firewall.

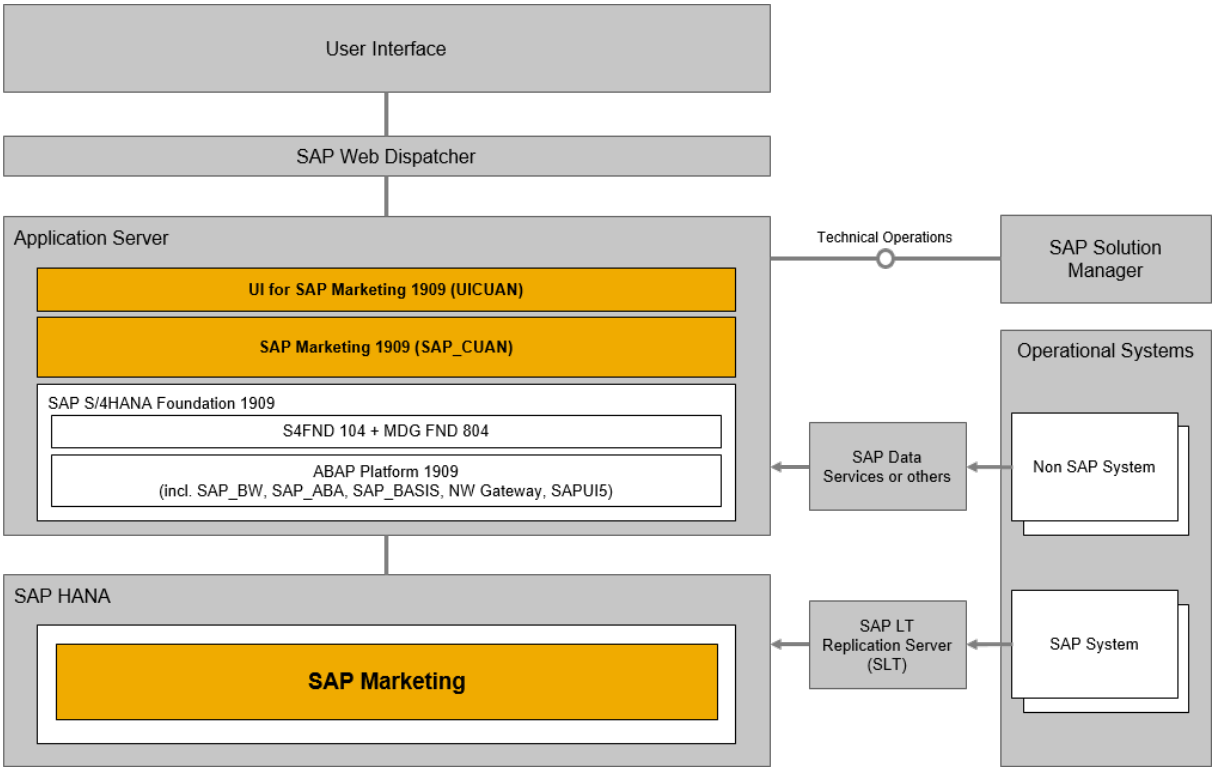
The requests of the stateless Web applications to the back end are based on OData (read and write) using HTTPS.

The main reused components of the application server are those of the ABAP Platform 1909, for example, user management, authentication, and authorization. SAP Gateway handles the requests from the front end through OData channel services.

The underlying database for SAP Marketing is SAP HANA 2.0. To leverage the capabilities of the SAP HANA database, parts of the segmentation, search capabilities, and analysis are performed directly on the database using stored procedures and SAP HANA information models, such as calculation views, attribute views, and analytical views. All access to the database is done through the ABAP Platform 1909 using OpenSQL or the ABAP Database Connectivity (ADBC) interface of ABAP to the SAP HANA database. Only the user management of the ABAP Platform 1909 is required and only a technical user within the SAP HANA database is required for the access.

Data from SAP ERP, for example, and other SAP components can be replicated to SAP Marketing with the SAP LT replication framework. For more information about the tables that are required for the usage of SAP Marketing in connection with SAP ERP or SAP CRM, and need to be configured in SAP LT, see the *Appendix* section of this document. Results for SAP Marketing can be sent to SAP CRM. For other deployment options of SAP Marketing with SAP ERP and SAP CRM, see Deployment Scenarios [page 13].

The ABAP platform role and authorization framework is used with SAP Marketing.



More Information

For more information about the SAP HANA database system landscape, see the SAP HANA Security Guide on the SAP Help Portal at:

http://help.sap.com/hana_platform **Select the required version in the "Version" field** *Security* *SAP HANA Security Guide*

For more information, see the resources listed in the following table.

Topic	Guide/Tool	Quick Link on SAP Service Marketplace or SCN
Security	See applicable documents	http://scn.sap.com/community/security https://help.sap.com/mkt-op *Security*

3 Deployment Scenarios

SAP Marketing can use SAP ERP data from SAP ERP 6.0 or higher and SAP CRM data from enhancement package (EHP) 1 for SAP CRM 7.0 SP04 (plus SAP Note 1995798) or higher. Several deployment options are available. Your decision for a certain deployment option depends on the release of your source system and the SAP Marketing applications that you want to run. The table below shows which data is mandatory for each solution.

The following options are described in more detail:

- Scenario A: Standalone Deployment [page 14]
- Scenario B: Hub-Deployment with Separate SAP HANA System [page 14]

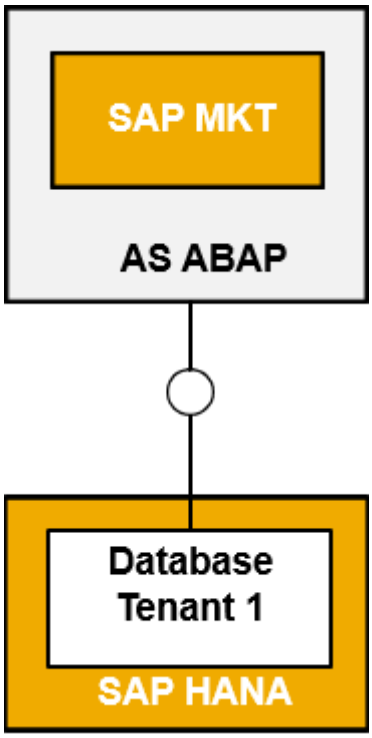
For recommendations concerning the appropriate system landscape to run the application, refer to the Product Availability Matrix (PAM). In the PAM, enter `SAP MARKETING 1809` in the "Find Product Versions" field in the upper right corner and select the corresponding entry in the search results. In the *Details for Product Version SAP MARKETING 1809*, see the *Landscape Recommendations* document in the *Related Links* section.

SAP Marketing Licenses or Applications	SAP ERP	SAP CRM
Data Management	optional	optional
Insight - Marketing Executive Dashboard	optional	optional
Segmentation on SAP ERP Accounts	**mandatory**	optional
Segmentation on SAP CRM Accounts	optional	**mandatory**
Segmentation on contact of third party data	optional	optional
Recommendation	optional	optional
Planning	optional	optional
Acquisition	optional	optional

3.1 Scenario A: Standalone Deployment

SAP Marketing Segmentation and *SAP Marketing Data Management* can be used without SAP ERP or SAP CRM data. Third-party data to be used in these applications can be replicated to the SAP HANA tenant database or imported to the SAP Marketing system with different tools:

- For the replication of your third-party data, you can use one of the SAP HANA data provisioning tools described in the SAP HANA Master Guide on the SAP Help Portal at:
  http://help.sap.com/hana_platform **Select the required version in the "Version" field** *Installation and Upgrade*
- For the import of your third-party data to your SAP Marketing system, you can use one of the integration services for data upload, described in section Integration APIs of the Integration Guide on the SAP Help Portal at:
  https://help.sap.com/mkt-op *Integration*



Standalone Deployment

3.2 Scenario B: Hub-Deployment with Separate SAP HANA System

You can deploy SAP Marketing in a side-by-side approach. This means that the application runs on a separate application server with a separate SAP HANA tenant database. In this case the data is replicated from your source system into the SAP HANA tenant database with the SAP Landscape Transformation Replication Server (SAP LT).

Using separate deployment and data replication ensures that there is no incident or disruption in your production source systems, since the application does not directly access your production data. Replication

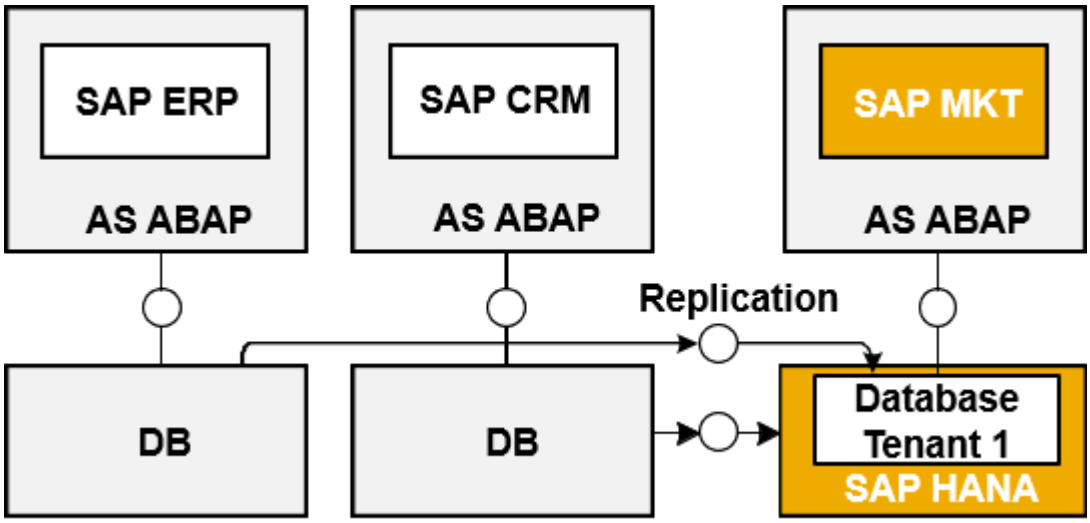
also allows your SAP HANA-based application to work with data even if your production systems do not use SAP HANA.

For more information about the data replication, see Data Replication [page 24].

In this scenario, you can, in addition, upload third-party data to your SAP Marketing system by using one of the integration services for data upload, described in section Integration APIs of the Integration Guide on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Integration* ▶

Deployment Examples



Hub-Deployment with SAP ERP and SAP CRM and Separate SAP HANA System

The following table shows the minimum required releases:

SAP ERP	SAP CRM
SAP ERP 6.0	EHP1 for SAP CRM 7.0 SP04 plus SAP Note 1995798

4 Development and Production Systems

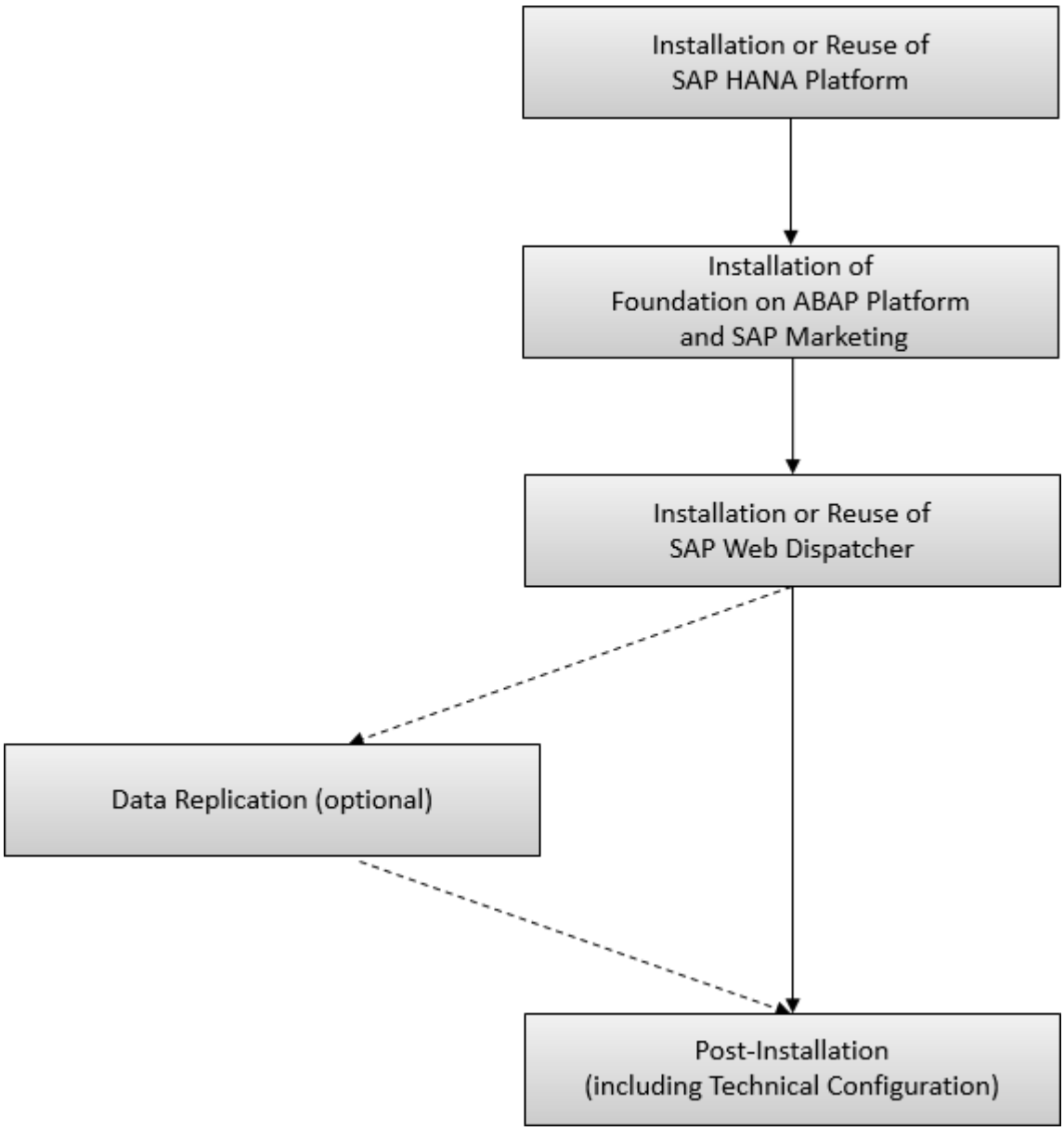
We recommend that you install or update first in a development system. After testing, you may begin installation in your production system.

> **i** Note
>
> Certain tasks are only carried out in the development system (see Creating Development Package [page 41]). These tasks generate repository objects and Customizing objects that are imported into the production system at a later point in time (see Applying Technical Configuration Artifacts to Production System [page 56]).

5 Installation

This section explains how the base installation of SAP Marketing on premise is to be executed. Since SAP Marketing runs on the SAP S/4HANA foundation with SAP HANA as the primary and only database, you must set up the database first. The SAP S/4HANA foundation as well as theSAP Marketing system will be installed on this SAP HANA database in a second step.

The following flow chart illustrates the sequence of the installation process.



5.1 Checking Release Information Note and Release Strategy Note

As an integral part of the installation process, you have to adhere to all mentioned instructions in the Release Information Note (RIN) for SAP Marketing, number 1885803.

In addition, refer to the Release Strategy Note for SAP Marketing, number 2469687 to properly plan your installation process.

You find the mentioned SAP Notes under https://launchpad.support.sap.com/#/mynotes. Enter the required SAP Note number in the corresponding field in the upper right corner of the screen.

5.2 Installation of the SAP HANA Platform

As an appliance, SAP HANA uses software components from SAP optimized for proven hardware provided by SAP's hardware partners. Therefore, the components of SAP HANA can only be installed by certified hardware partners on validated hardware running a specific operating system.

To ensure that your SAP HANA appliance is optimally prepared for use with your application, you should consider the following topics.

5.2.1 Correct Sizing of the SAP HANA Database

For help in determining SAP HANA sizing for SAP Marketing, see the Sizing Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Installation and Upgrade* ▶ *View All* ▶.

Another option is to use the web-based Quick Sizer at https://www.sap.com/about/benchmark/sizing.quick-sizer.html#quick-sizer.

5.2.2 Installing the SAP HANA Database

The installation of the SAP HANA database is a multi-tenancy-enabled installation. This means that you receive two databases during the installation procedure:

- A system database, which contains information about the system as a whole, as well as all its tenant databases. It is used for central system administration. For more information, see The System Database.
- One tenant database, in which business applications and business data is stored. For more information, see Overview of SAP HANA Tenant Databases.

For information about the installation and configuration procedure of the SAP HANA databases, follow the instructions in the corresponding master and installation guides. You find all documents on the SAP Help Portal

at http://help.sap.com/hana_platform **Select the required version in the "Version" field** ▶ *Installation and Upgrade* ▶:

- SAP HANA Master Guide
- SAP HANA Server Installation and Update Guide
- SAP HANA Tenant Databases Operations Guide

5.2.3 Updating to Higher Revisions of the SAP HANA Database

SAP ships SAP HANA Support Package revisions, which contain latest capabilities in SAP HANA. As your current installation might not contain the latest revision, you must update your SAP HANA database accordingly. Check the Release Information Note (RIN) for SAP Marketing 1885803 to find information about the minimum SAP HANA revision required for SAP Marketing.

You can find the RIN under http://support.sap.com/notes.

For information about the SAP HANA update, see Updating an SAP HANA System Landscape in the SAP HANA Master Guide on the SAP Help Portal at:

http://help.sap.com/hana_platform **Select the required version in the "Version" field** ▶ *Installation and Upgrade* ▶ *SAP HANA Master Guide* ▶

5.2.4 Installing the SAP HANA Application Function Library (AFL)

An SAP HANA system consists of the SAP HANA server and additional components like the *Application Function Library (AFL)*. SAP Marketing requires this library. Therefore install the library as described in section Managing SAP HANA System Components of the SAP HANA Administration Guide on the SAP Help Portal at:

http://help.sap.com/hana_platform **Select the required version in the "Version" field** ▶ *Administration* ▶ *SAP HANA Administration Guide for SAP HANA Platform* ▶ *SAP HANA Lifecycle Management* ▶ *SAP HANA Platform Lifecycle Management* ▶ *About the SAP HANA Database Lifecycle Manager (HDBLCM)* ▶ *Using the SAP HANA Platform LCM Tools* ▶ *Additional Information About Using the SAP HANA Platform LCM Tools* ▶ *Managing SAP HANA System Components* ▶

5.3 Installation of SAP S/4HANA Foundation and SAP Marketing

> **i Note**
>
> Your application runs only on the SAP S/4HANA Foundation that is installed with SAP HANA as the primary and only database system. Other types of database systems are not supported.

The SAP Marketing applications are based on the SAP S/4HANA Foundation 1909 that is built on the ABAP Platform 1909 (ABAP PLATFORM 1909)). The installation of the foundation and the SAP Marketing system is executed using tools of the software logistics toolset (SL Toolset). The SL Toolset is a product-independent delivery channel that delivers up-to-date software logistics tools.

You have several options supported by the ABAP Platform to install SAP Marketing. In the following, you are provided with a description of an up-to-date installation based on Maintenance Planner, a tool that is based on SAP Solution Manager's processes and data. Maintenance Planner is part of the SL Toolset.

For other installation options, see the required information in the corresponding standard guides on the SAP Support Portal (https://support.sap.com/sltoolset).

The simplified up-to-date installation supports planning of new installations on a chosen stack level. You can generate a consolidated stack configuration file, which allows you to install and directly update your system at the chosen SPS level. The up-to-date installation allows you to select target software level and push archives to the download basket in a single step.

For a first impression about Maintenance Planner, see https://blogs.sap.com/2015/07/09/maintenance-planner-2/.

To start the up-to-date installation procedure, follow the description in the following section, Up-to-Date Installation Using Maintenance Planner [page 20].

5.3.1 Up-to-Date Installation Using Maintenance Planner

To initially use Maintenance Planner, follow the instructions in the corresponding Maintenance Planner - User Guide on the SAP Help Portal at:

http://help.sap.com/maintenanceplanner ▶ *Application Help* ▶

Once you have logged on to Maintenance Planner following the description in the appropriate chapters of the user guide, you start the up-to-date installation of the ABAP-based software components required to run SAP Marketing:

- SAP S/4HANA Foundation and all required subcomponents
- SAP Marketing add-on including all depending subcomponents

For a general step-by-step description of the up-to-date installation process, see https://blogs.sap.com/2016/10/21/up-to-date-installation-2.

During the installation process, you select the following components:

- *SAP S/4HANA FOUNDATION 1909*
- *SAP MARKETING 1909*

Be sure to consider the following during the installation process:

- In the *Select Files* step, ensure that you selected the latest version of the Software Update Manager for your operating system as this tool is used in the background during the installation process. Maintenance Planner, in addition, recommends to select the latest versions of Software Provisioning Manager, SAP Kernel, SAP IGS, and SAP Host Agent for your operating system.
- In the *Download Files* step, you choose the *Download Stack XML* pushbutton to download the corresponding XML file as this file is required during the installation process.
- In the *Download Files* step, you choose the *Download PDF* pushbutton to receive the overview of your maintenance plan.
  1. Once downloaded, open the PDF document.
  2. Click the *Download Installation/Upgrade Media from SAP Service Marketplace* link.
  3. The *Software Downloads* application in the SAP Support Portal opens.
  4. Under *Installation and Upgrade*, verify your operating system and database and select the following entry in addition: *SAP S/4HANA FOUNDATION 1909*. You can add other entries according to your requirements, for example, the language files.
     The selected entries are added to your already existing download basket created in Maintenance Planner.
  5. At the end of the process, check your download basket for all required components.

Installation

To install the SAP S/4HANA Foundation and SAP Marketing, follow the instructions in the corresponding installation guide for your operating system. You can find the appropriate guide at Installation Guides - Application Server Systems - Software Provisioning Manager 2.0 on the SAP Help Portal.

In the table provided in the document linked above, search for **`ABAP`** in the *Technical Stack* column, and for **`SAP HANA Database`** in the *Database* column. In addition, filter for your operating system.

You can also navigate to the required guide on the SAP Support Portal using the following path:

http://support.sap.com/sltoolset *System Provisioning* *System Provisioning Scenarios* *Install a System Using Software Provisioning Manager* *Installation Option of Software Provisioning Manager 2.0 SP 05* *Installation Guides - Application Server Systems - Software Provisioning Manager 2.0*

> **i** Note
>
> During the installation procedure, make use of the option to add the parameter `SAPINST_STACK_XML=<Absolute_Path_To_Stack_XML_File>`.

Integrated SAP Web Dispatcher

The use of an SAP Web Dispatcher is mandatory for running SAP Marketing. To simplify the installation, SAP recommends to use the integrated SAP Web Dispatcher.

For information on how to install the integrated SAP Web Dispatcher, see section *ASCS Instance with Integrated SAP Web Dispatcher* in the installation guide that you have accessed above (as an **example**, see this chapter from the installation guide for **Windows** operating systems at ASCS Instance with Integrated SAP Web Dispatcher).

> **i** Note
>
> If you already use an SAP Web Dispatcher in your system landscape, you can reuse it for SAP Marketing purposes. For the required configuration, see Configuring the SAP Web Dispatcher [page 32].

If you do not want to use the integrated SAP Web Dispatcher or reuse your SAP Web Dispatcher that is already in use, you can install the SAP Web Dispatcher from scratch. To do so, follow the instructions in the corresponding installation guide for your operating system. You can find the appropriate guide at Installation Guides - SAP Web Dispatcher on the SAP Help Portal.

In the table provided in the document linked above, search for your operating system to access the required guide.

You can also navigate to the guide on the SAP Support Portal using the following path:

http://support.sap.com/sltoolset ▶ *System Provisioning* ▶ *System Provisioning Scenarios* ▶ *Install a System Using Software Provisioning Manager* ▶ *Installation Option of Software Provisioning Manager 2.0 SP 05* ▶ *Installation Guides – Web Dispatcher* ▶

5.4 Installing SAPUI5 Tools and ABAP Development Tools

If you want to enhance or change the the SAPUI5-based user interface of SAP Marketing, then you must install the required development tools, which are the SAPUI5 Tools integrated development environment (IDE) and the SAPUI5 Team Provider, on each client. With the installation of these tools, you also install the ABAP Development Tools.

For detailed information about the installation process, see the Master Guide for User Interface Add-On 2.0 for SAP NetWeaver on the SAP Help Portal at:

https://help.sap.com/viewer/p/UI_ADD-ON_FOR_SAP_NETWEAVER_20 ▶ *Installation and Upgrade* ▶

5.5 Implementation of SAP Notes Listed in Release Information Note

To complete the installation process, you must implement all SAP Notes listed in the Release Information Note (RIN) for SAP Marketing, number 1885803 that have not been implemented before.

You can find the RIN under http://support.sap.com/notes, entering the RIN number in the corresponding field on the screen.

> **i Note**
>
> Ensure that you have carefully read the RIN before you implement the included SAP Notes. The RIN contains information about the exact point in time for the implementation of every included SAP Note:
>
> - Before the import of the support package
> - Before executing the technical configuration
> - After executing the technical configuration
> - SAP Note only relevant for a certain solution scope

To install the SAP Notes in the RIN, do the following:

1. Log on to the AS ABAP system as an administrator. You can log on to the production client of the application; installing SAP Notes is a client-independent procedure.
2. Use transaction `SNOTE` to install the SAP Notes in the RIN.

6 Data Replication

> **i** Note
>
> This section is relevant only if you have decided to deploy SAP Marketing separately from your source system using one of the hub-deployment approaches.
>
> For more information about the various deployment scenarios, see Deployment Scenarios [page 13].

6.1 Installation of SAP Landscape Transformation Replication Server

To install and set up trigger-based data replication, follow the instructions in the Installation Guide - Trigger-Based Data Replication Using SAP Landscape Transformation Replication Server on the SAP Help Portal at:

https://help.sap.com/sapslt ▶ *Installation and Upgrade* ▶ *Installation Guide - Replicating Data to SAP HANA* ▶

> → Recommendation
>
> SAP recommends to use the latest version of SAP Landscape Transformation Replication Server, minimum version 2.0 SP13.

6.1.1 Connection Setup between SAP Marketing and SAP LT Replication Server

1. Log on to your SAP LT Replication Server system.
2. Enter transaction `PFCG`, and copy the role `SAP_IUUC_REPL_REMOTE`. You must enhance the role by the following authorizations:
   - **Authorization Object**: `S_RFC`
     - *Activity*: **`16 (Execute)`**
     - *Name of RFC to be protected*: `SDTB`, `SDIFRUNTIME`
     - *Type of RFC to be protected*: `FUGR`
   - **Authorization Object**: `S_RFC`
     - *Activity*: **`16 (Execute)`**
     - *Name of RFC to be protected*: `SCSI_GET_SYSTEM_INFO`
     - *Type of RFC to be protected*: `FUNC`
   - **Authorization Object**: `S_DMIS`
     - *Activity*: 02 (Change)

- *MBT PCL Scenario*: `SLOP`
- *MBT PCL Processing Role Level*: **`PACKAGE`**

For more information about the maintenance of authorization profiles, see Maintaining Authorizations and Their Values on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *Securing the ABAP Platform* ▶ *Security and User Administration* ▶ *User Administration and Identity Management in ABAP Systems* ▶ *[Scroll down to section "Related Information"]* ▶ *User and Role Administration of Application Server ABAP* ▶ *Reference Documentation for User and Role Administration* ▶ *Organization Without the Profile Generator* ▶ *Creating and Maintaining Authorizations and Profiles Manually* ▶ *Maintaining Authorizations and Their Values* ▶

3. Generate the profile of your role and leave transaction `PFCG`.
4. Enter transaction `SU01` and create a user with your new role. You use this user in the RFC destination between your SAP Marketing system and the SAP LT Replication Server.
5. Log on to your SAP Marketing system.
6. Enter transaction `SM59`, and choose the *Create* menu option in the *Edit* menu to create a new ABAP connection between your SAP Marketing system and your SAP LT Replication Server.
7. Enter your name for the RFC destination. Enter all required information and use the user you created in step 4.
8. Confirm your entries and save the RFC destination. Test the RFC destination using the connection test.

6.1.2 Connection Setup between SAP Marketing and SAP Source System

During the installation of SAP Landscape Transformation Replication Server you have installed the SAP Landscape Transformation add-on on your SAP source system. To enable the replication between your SAP Marketing system and your SAP source system, you must create an RFC destination. To do so, execute the following steps:

1. Log on to your SAP source system.
2. Enter transaction `PFCG`, and copy the role `SAP_IUUC_REPL_REMOTE`. You must enhance the copied role by the following authorizations:
   - **Authorization Object**: `S_RFC`
     - *Activity*: 16 (Execute)
     - *Name of RFC to be protected*: `SDTB`, `SDIFRUNTIME`
     - *Type of RFC to be protected*: `FUGR`

   For more information about the maintenance of authorization profiles, see Maintaining Authorizations and Their Values on the SAP Help Portal at:

   https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *Securing the ABAP Platform* ▶ *Security and User Administration* ▶ *User Administration and Identity Management in ABAP Systems* ▶ *[Scroll down to section "Related Information"]* ▶ *User and Role Administration of Application Server ABAP* ▶ *Reference Documentation for User and Role Administration* ▶ *Organization Without the Profile Generator* ▶ *Creating and Maintaining Authorizations and Profiles Manually* ▶ *Maintaining Authorizations and Their Values* ▶

3. Generate the profile of your role and leave transaction `PFCG`.
4. Enter transaction `SU01` and create a user with your new role. You use this user in the RFC destination between your SAP Marketing system and your SAP source system.
5. Log on to your SAP Marketing system.
6. Enter transaction `SM59`, and choose the *Create* menu option in the *Edit* menu to create a new ABAP connection between your SAP Marketing system and your SAP source system.
7. Enter your name for the RFC destination. Enter all required information and use the user you created in step 4.
8. Confirm your entries and save the RFC destination. Test the RFC destination using the connection test.

6.1.3 Basic Configuration of Data Replication

You must create a basic configuration for all source systems from which you want to replicate data to your SAP Marketing system. To do so, follow the instructions in section *Creating a Configuration* of the Application Operations Guide for SAP Landscape Transformation Replication Server. You find this Application Operations Guide on the SAP Help Portal at:

https://help.sap.com/sapslt ▶ *Operations* ▶ *Application Operations Guide - Replicating Data to SAP HANA* ▶

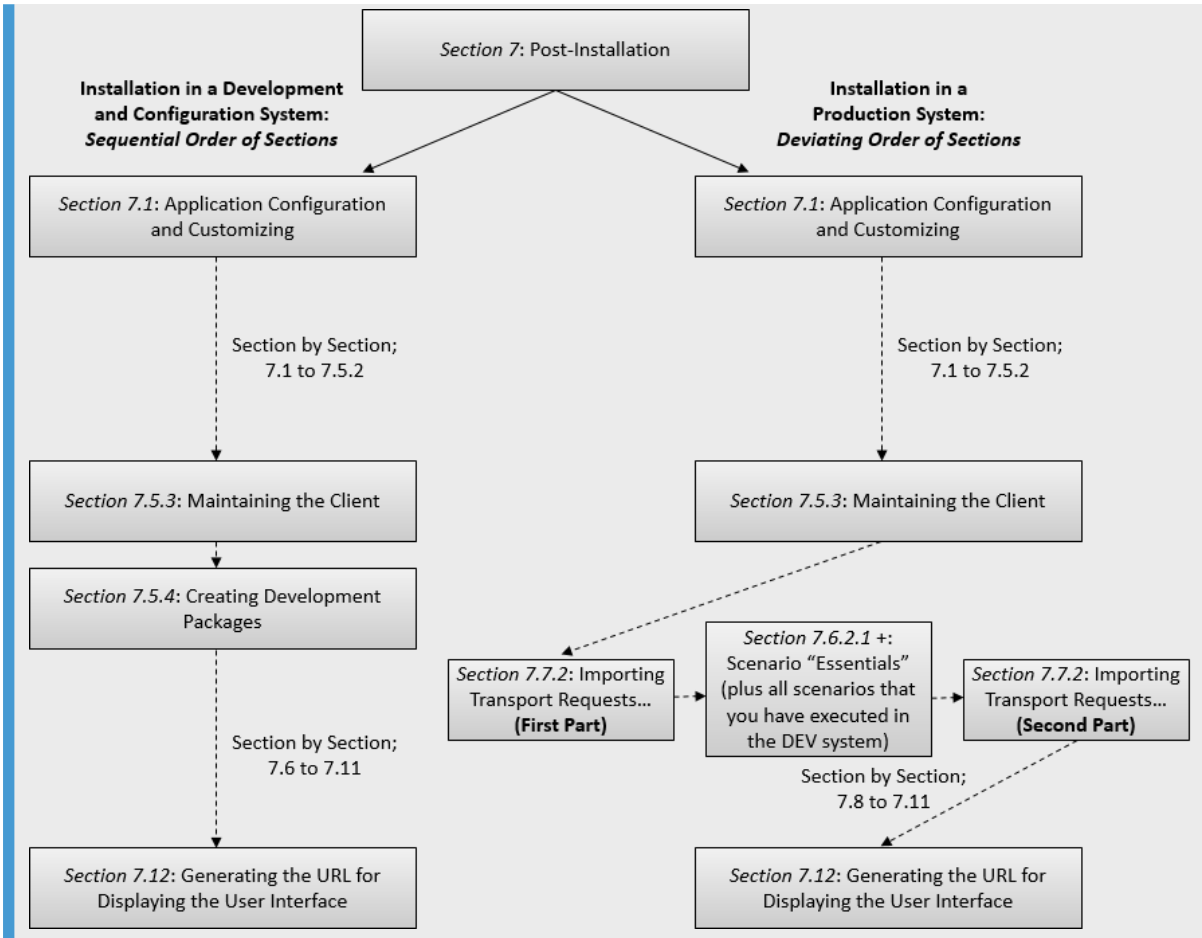
The technical configuration (see Using the Technical Configuration Cockpit [page 41]) automatically adjusts this configuration and adds the required tables (see also the *Replicated Tables* sections in the Appendix [page 171]).

7 Post-Installation

After you have installed all the components that you need to run the SAP Marketing application and have implemented all relevant SAP Notes from the RIN 1885803, carry out the following technical configuration steps. You find these steps listed in the following sections.

> ⚠ Caution
>
> - Make sure that you carry out the following post-installation steps in the same client in which you want to run the SAP Marketing application.
> - The sequence of the post-installation steps reflected by the following sections depends on the role of system, in which you execute the installation: The sequence in the development system differs from the sequence in the production system.
>   For more information, see the graphic below.

> i Note
>
> During the following post-installation process executed in your **development system**, transport requests are created, which contain generated objects and Customizing entries. While some of the requests are created automatically by the technical configuration cockpit, you need to create other requests manually.
>
> After testing, the transport requests are imported into the **production system** in a specific sequence (see Applying Technical Configuration Artifacts to Production System [page 56]).
>
> When you carry out the installation in the production system, the technical configuration cockpit automatically skips the tasks that no longer need to be carried out, due to the import of transport requests from the development system.



Post-Installation Process Flow for Development and Production Systems (the section numbers refer to the PDF output of this guide)

7.1 Application Configuration and Customizing

7.1.1 Initial Customizing Adjustment

With the installation of SAP Marketing (see Installation of SAP S/4HANA Foundation and SAP Marketing [page 20]), Customizing is installed only in client 000 of your AS ABAP system. To ensure the availability of all relevant Customizing in your productive client, we recommend to create this client via client copy from client 000. During the client copy process, select a copy role, which ensures that Customizing is copied. Note that all application data is erased during the copy procedure.

> **i** Note
>
> Ensure that the SAP Marketing add-on is installed before executing the client copy. If the SAP Marketing add-on is not installed the Customizing to be copied is not available.

For more information, see Client Copier on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *Application Server ABAP Infrastructure* ▶ *Administration of Application Server ABAP* ▶ *Change and Transport System* ▶ *BC - Client Copy and Transport (BC-CTS-CCO)* ▶ *Client Copier* ▶

7.2 Configuring the SAP HANA Database

7.2.1 SAP HANA User for Technical Configuration

During the technical configuration of SAP Marketing, several actions must be executed on the SAP HANA database which require different authorizations. To ensure that all of these authorizations are available, run the script below in the tenant database. The executed script creates a user with sufficient authorization for carrying out the SAP Marketing technical configuration on the SAP HANA database.

In addition, you must enable the script server for the tenant database.

> **i** Note
>
> The SAP HANA authorizations required during business usage are granted to the AS ABAP user (`SAP<SID>`).
>
> You can deactivate the user after successful completion of the technical configuration for the installation of SAP Marketing. You must reactivate the user again when performing technical configuration such as upgrade activities.

Creating the SAP HANA User

Ensure that you run the script in the **tenant database** of your SAP HANA applicance. Proceed as follows:

1. Log on to the SAP HANA studio with the `SYSTEM` user.
2. Open the *SQL console*.
3. Copy the script below into the *SQL console*. If there are more than one, choose the correct database connection, which is the tenant database connection.
4. Choose *Execute (F8)*.
5. Check the log to see if all steps were carried out successfully.

> **i** Note
>
> - If you want to copy and paste the SQL statements below, ensure that all blank characters are copied accurately.
> - After running the script, you must ensure the following:
>   - Check if every single statement is successfully executed.

- Log off and log back on again in order to change the initial password.

```
CREATE USER TC_USER PASSWORD <Your chosen password>;
ALTER USER TC_USER DISABLE PASSWORD LIFETIME;

-- object privileges
GRANT EXECUTE ON "GRANT_ACTIVATED_ROLE" TO TC_USER WITH GRANT OPTION;
GRANT EXECUTE ON "REVOKE_ACTIVATED_ROLE" TO TC_USER WITH GRANT OPTION;
GRANT EXECUTE ON "GRANT_PRIVILEGE_ON_ACTIVATED_CONTENT" TO TC_USER WITH GRANT
OPTION;
GRANT EXECUTE ON "REVOKE_PRIVILEGE_ON_ACTIVATED_CONTENT" TO TC_USER WITH GRANT
OPTION;
GRANT EXECUTE ON "GRANT_APPLICATION_PRIVILEGE" TO TC_USER WITH GRANT OPTION;
GRANT EXECUTE ON "REVOKE_APPLICATION_PRIVILEGE" TO TC_USER WITH GRANT OPTION;
GRANT EXECUTE ON "GRANT_SCHEMA_PRIVILEGE_ON_ACTIVATED_CONTENT" TO TC_USER WITH
GRANT OPTION;
GRANT EXECUTE ON "REVOKE_SCHEMA_PRIVILEGE_ON_ACTIVATED_CONTENT" TO TC_USER WITH
GRANT OPTION;
GRANT SELECT ON SCHEMA "_SYS_REPO" TO TC_USER WITH GRANT OPTION;
GRANT UPDATE, SELECT ON "_SYS_XS"."SQL_CONNECTIONS" TO TC_USER;

-- system privileges
GRANT "CREATE R SCRIPT" TO TC_USER WITH ADMIN OPTION;
GRANT "CREATE STRUCTURED PRIVILEGE" TO TC_USER WITH ADMIN OPTION;
GRANT "CREATE SCHEMA" TO TC_USER WITH ADMIN OPTION;
GRANT "ROLE ADMIN" TO TC_USER WITH ADMIN OPTION;
GRANT "DATA ADMIN" TO TC_USER WITH ADMIN OPTION;
GRANT "USER ADMIN" TO TC_USER WITH ADMIN OPTION;
GRANT "WORKLOAD ADMIN" TO TC_USER;

-- XS appl privileges
CALL
_SYS_REPO.GRANT_ACTIVATED_ROLE('sap.hana.xs.admin.roles::RuntimeConfAdministrator
', 'TC_USER');
CALL
_SYS_REPO.GRANT_ACTIVATED_ROLE('sap.hana.xs.admin.roles::SQLCCAdministrator',
'TC_USER');
```

7.2.2 Enabling the Script Server for the Tenant Database

As administrator of the **system** database (`SYSTEMDB`), execute the following SQL statement:

```
ALTER DATABASE <SID of your SAP Marketing Tenant Database>
ADD 'scriptserver'
```

For more information about adding a service to the tenant database via SQL statement, see section Add or Remove Services in a Tenant Database of the SAP HANA Administration Guide on the SAP Help Portal at:

http://help.sap.com/hana_platform **Select the required version in the "Version" field** ▶ *Administration* ▶ *SAP HANA Administration Guide* ▶ *System Administration* ▶ *Managing Tenant Databases* ▶ *Monitoring and Managing Tenant Databases* ▶ *Add or Remove Services in a Tenant Database* ▶

7.3 Profile Parameter Settings

SAP Marketing requires several profile parameter settings, for example, to set up HTTPS connections.

After you have set the required profile parameters, restart your system to make the parameter changes effective.

7.3.1 Configuring HTTPS

We recommend to realize the communication of the SAP Web Dispatcher (see subsection *Integrated SAP Web Dispatcher* in section Up-to-Date Installation Using Maintenance Planner [page 20]) with the AS ABAP system via HTTPS.

To prepare the system for HTTPS communication, log on with the User for Application Setup [page 36], go to transaction `RZ10`, and configure an HTTPS port in the instance profile of the system.

The following example shows how these parameters may be set:

> **Example**
>
> ```
> icm/server_port_1 = PROT=HTTPS, PORT=443$$
> ```

For more information, see section ICM Parameter Reference of the ABAP platform documentation on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *Application Server ABAP - Infrastructure* ▶ *Components of Application Server ABAP* ▶ *Internet Communication Manager (ICM)* ▶ *Administration of the ICM* ▶

7.3.2 Configuring the Secure Sockets Layer Protocol

To secure HTTP connections to and from the AS ABAP system you use the Secure Sockets Layer (SSL) protocol.

To configure SSL, follow the instructions of section Configuring AS ABAP to Support TLS of the ABAP platform documentation on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *Securing the ABAP Platform* ▶ *Security Concepts and Tools* ▶ *Network and Transport Layer Security* ▶ *Transport Layer Security on the AS ABAP* ▶

> **Note**
>
> After following the procedures in Configuring AS ABAP to Support TLS, add the SSL server certificate that you have created to the trusted certificate list for the Standard SSL and Anonymous SSL Client PSE in transaction `STRUST`. This allows the AS ABAP to communicate with itself via HTTPS.

→ Tip

You can check whether the SAP Cryptographic Library software is already installed in your system by doing the following:

1. Go to transaction `STRUST`.
2. Choose *Environment* > *Display SSF_Version*. If the system response shows that the `SAPCRYPTOLIB` is installed, then you can skip the installation step for the Cryptographic Library in the documentation cited above.

7.4 Configuring the SAP Web Dispatcher

SAP Marketing comprises both ABAP-based applications and applications based on SAP HANA extended application services, classic model (SAP HANA XS Classic). For this reason, SAP Marketing requires an SAP Web Dispatcher due to the same origin policy of browsers. In addition, the SAP Web Dispatcher is required to display and use the Web Assistant, an integrated help system that provides context sensitive user assistance.

To configure the SAP Web Dispatcher you must set up a few communication channels. To do so, proceed as follows.

Communication Between SAP Web Dispatcher and Clients

To configure the communication between clients (for example, your browser) and the SAP Web Dispatcher, follow the instructions under http://help.sap.com/fiori_implementation > *Installation and Upgrade* > *SAP Fiori: Setup and Configuration* > *Configuration of SAP Fiori Infrastructure* > *Communication Channels* > *SAP Web Dispatcher: Setup of Communication* > *Configuring Communication Channel between Clients and SAP Web Dispatcher*.

(Configuring Communication Channel between Clients and SAP Web Dispatcher)

As a result, your SAP Web Dispatcher will support HTTPS connections. Keep your HTTPS port in mind.

Communication Between SAP Web Dispatcher and AS ABAP

To configure the communication between the SAP Web Dispatcher and the SAP Marketing AS ABAP server, follow the instructions in the following documentation sections:

- *Defining Routing Rules for SAP Web Dispatcher and ABAP Front End*
- *Defining Routing Rules for SAP Web Dispatcher and ABAP Back End*
- *Configuring SAP Web Dispatcher and ABAP Servers for X.509-Based Logon (Optional)*

You find these sections on the SAP Help Portal under:

http://help.sap.com/fiori_implementation ▶ *Installation and Upgrade* ▶ *SAP Fiori: Setup and Configuration* ▶ *Configuration of SAP Fiori Infrastructure* ▶ *Communication Channels* ▶ *SAP Web Dispatcher: Setup of Communication* ▶

(SAP Web Dispatcher: Setup of Communication)

Your SAP Marketing server is the AS ABAP front-end and back-end server.

Communication Between SAP Web Dispatcher and SAP HANA XS Classic

To set up communication between the SAP Web Dispatcher and SAP HANA extended application services, classic model, follow the instructions under http://help.sap.com/fiori_implementation ▶ *Installation and Upgrade* ▶ *Setup of SAP Fiori System Landscape* ▶ *Setup of SAP Fiori System Landscape with SAP HANA XS* ▶

(Setup of SAP Fiori System Landscape with SAP HANA XS)

> **i Note**
>
> The communication paths for communication between the SAP Web Dispatcher and the SAP HANA Extended Application Services must be disjunct to the paths for communication between the SAP Web Dispatcher and the SAP Marketing AS ABAP server.

When you define the routing rules between SAP Web Dispatcher and SAP HANA Extended Application Services, add `/sap/hana-app` and `/sap/ui5` as a routing rule.

During configuration a number of changes are made to the SAP Web Dispatcher profile. The following list shows a sample profile after configuration.

Example

> **i Note**
>
> The example does not ensure the proper run of the SAP Web Dispatcher in your system. Adapt your settings according to your specific system requirements.

> **Sample Code**

```
SAPSYSTEMNAME = WEB
SAPSYSTEM = 02
INSTANCE_NAME = W02
DIR_CT_RUN = $(DIR_EXE_ROOT)$(DIR_SEP)$(OS_UNICODE)$(DIR_SEP)linuxx86_64
DIR_EXECUTABLE = $(DIR_CT_RUN)
DIR_PROFILE = $(DIR_INSTALL)/profile
_PF = $(DIR_PROFILE)/WEB_W02_mo-29b02f1eb
SETENV_00 = DIR_LIBRARY=$(DIR_LIBRARY)
SETENV_01 = LD_LIBRARY_PATH=$(DIR_LIBRARY):%(LD_LIBRARY_PATH)
SETENV_02 = SHLIB_PATH=$(DIR_LIBRARY):%(SHLIB_PATH)
SETENV_03 = LIBPATH=$(DIR_LIBRARY):%(LIBPATH)
SETENV_04 = PATH=$(DIR_EXECUTABLE):%(PATH)
#-----------------------------------------------------------------------
# Accessibility of Message Server
#-----------------------------------------------------------------------
```

```
rdisp/mshost = mo-29b02f1eb
ms/http_port = 8100
#-----------------------------------------------------------------------
# Configuration for medium scenario
#-----------------------------------------------------------------------
icm/max_conn = 500
icm/max_sockets = 1024
icm/req_queue_len = 500
icm/min_threads = 10
icm/max_threads = 50
mpi/total_size_MB = 80
#-----------------------------------------------------------------------
# SAP Web Dispatcher Ports
#-----------------------------------------------------------------------
icm/server_port_0 = PROT=HTTP,HOST=mo-29b02f1eb,PORT=81$$
icm/server_port_1 = PROT=HTTPS,HOST=mo-29b02f1eb,PORT=82$$
icm/HTTP/admin_0 = PREFIX=/sap/admin,DOCROOT=$(DIR_DATA)$(DIR_SEP)
icmandir,AUTHFILE=$(icm/authfile),PORT=81$$;82$$
#-----------------------------------------------------------------------
# Start Web Dispatcher
#-----------------------------------------------------------------------
_WD = wd.sap$(SAPSYSTEMNAME)_$(INSTANCE_NAME)
Execute_00 = local rm -f $(_WD)
Execute_01 = local ln -s -f $(DIR_EXECUTABLE)/sapwebdisp$(FT_EXE) $(_WD)
Start_Program_00 = local $(_WD) pf=$(_PF)
SETENV_05 = SECUDIR=$(DIR_INSTANCE)/sec
wdisp/ping_protocol = https
wdisp/group_info_protocol = https
wdisp/url_map_protocol = https
ssl/ssl_lib = /usr/sap/WEB/SYS/exe/nuc/linuxx86_64/libsapcrypto.so
ssl/server_pse = /usr/sap/WEB/W02/sec/sapssls.pse
icm/HTTPS/verify_client = 0
ssl/client_pse = /usr/sap/WEB/W02/sec/sapssls.pse
wdisp/ssl_encrypt = 2
wdisp/ssl_auth = 2
wdisp/ssl_cred = /usr/sap/WEB/W02/sec/sapssls.pse
icm/HTTPS/forward_ccert_as_header = true
wdisp/system_conflict_resolution = 1
wdisp/add_client_protocol_header = 1
wdisp/handle_webdisp_ap_header = 1
wdisp/add_xforwardedfor_header = true
#-----------------------------------------------------------------------
#Forwarding Rule to AS ABAP
#-----------------------------------------------------------------------
wdisp/system_0 = SID=NW1, NR=01, MSHOST=mo-29b02f1eb.mo.sap.corp,
MSPORT=8100, SRCURL=/sap/opu;/sap/bc;/sap/public;/sap/es;/sap/cuan;/sap/
ushell_config
#-----------------------------------------------------------------------
#Forwarding Rule to SAP HANA XS
#-----------------------------------------------------------------------
wdisp/system_2 = SID=HNA, EXTSRV=https://mo-02d2d957f.mo.sap.corp:4300,
SRCURL=/sap/hba;/sap/hana;/sap/hana-app;/sap/ui5;/sap/ead;/sap/bi
#-----------------------------------------------------------------------
#Forwarding Rule to Content Server
#-----------------------------------------------------------------------
wdisp/system_<number> = SID=<SID1>, EXTSRV=https://cp.hana.ondemand.com,
SRCURL=/sap/dfa/help/, SRCSRV=*:*, STANDARD_COOKIE_FILTER=OFF
#-----------------------------------------------------------------------
#Forwarding Rule to Script Server
#-----------------------------------------------------------------------
wdisp/system_<number> = SID=<SID2>, EXTSRV=https://xray.hana.ondemand.com,
SRCURL=/resources/sap/dfa/help/, SRCSRV=*:*, STANDARD_COOKIE_FILTER=OFF
```

Considering Documentation-Relevant Parameters

If you want to make context-sensitive user assistance available in the SAP Fiori launchpad, you must configure the SAP Web Dispatcher.

1. Adjust the SAP Web Dispatcher profile file.
   In the `sapwebdisp_pf.txt` file, add the following parameters:
   - For the User Assistance Content Platform:
     `wdisp/system_<number> = SID=<SID1>, EXTSRV=https://cp.hana.ondemand.com, SRCURL=/sap/dfa/help/, SRCSRV=*:*, PROXY=<your proxy>:<your proxy port>, STANDARD_COOKIE_FILTER=OFF`
   - For the User Assistant script server:
     `wdisp/system_<number> = SID=<SID2>, EXTSRV=https://xray.hana.ondemand.com, SRCURL=/resources/sap/dfa/help/, SRCSRV=*:*, PROXY=<your proxy>:<your proxy port>, STANDARD_COOKIE_FILTER=OFF`

   > **i Note**
   >
   > - Make sure that the numbers following `wdisp/system_` are smaller than the numbers that you use for all your application server. The rules for the context-sensitive user assistance need to come before the rules for the application servers.
   > - Make sure that the SIDs are not the same as your system IDs.

2. Activate the usage of the modification handler:
   `icm/HTTP/mod_0 = PREFIX=/, FILE=$(DIR_PROFILE)/redirect.txt`
   For more information about the profile parameter, see section icm/HTTP/mod_<xx> of the ABAP platform documentation on the SAP Help Portal at:
   https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *Application Server ABAP - Infrastructure* ▶ *Components of Application Server ABAP* ▶ *SAP Web Dispatcher* ▶ *Administration of the SAP Web Dispatcher* ▶ *SAP Web Dispatcher Parameters - Reference* ▶
3. Adjust the SAP Web Dispatcher redirect file:
   In the `redirect.txt` file, add the following parameters:

   > **Code Syntax**
   >
   > ```
   > # User Assistance Content Platform - rewrite rule
   > if %{SID} = <SID1>
   > begin
   > SetHeader HOST cp.hana.ondemand.com
   > RegRewriteRawUrl ^/sap/dfa/help/(.*) /dps/$1
   > end
   > # Script Server - rewrite rule
   > if %{SID} = <SID2>
   > begin
   > SetHeader HOST xray.hana.ondemand.com
   > RegRewriteRawUrl ^/resources/sap/dfa/help/(.*) /xRayControls/
   > resources/sap/dfa/help/$1
   > end
   > ```

   > **i Note**
   >
   > Make sure that the SIDs in the `redirect.txt` file are the same as in the `sapwebdisp_cf.txt` file.

Restart of SAP Web Dispatcher

After you have made these changes, restart your SAP Web Dispatcher.

7.5 Prerequisites in AS ABAP System

Before you carry out the technical configuration, you need to do the following:

- Allow system changes to the relevant clients
- Create development packages (development and configuration system only)

7.5.1 User for Application Setup

For the technical configuration of SAP Marketing, system settings must be changed and application setup steps must be performed. You therefore need an application user that can carry out the following tasks:

- Change **client settings**.
- Create a **development package**.
- Start the **technical configuration** in the *Technical Configuration Cockpit*, which sets up the application environment that is, for example, relevant for the activation of ICF services.
- Set profile **parameters**.

To ensure an error-free configuration procedure, the user in the production client of your AS ABAP system needs the following set of roles.

Role	You need to
`Z_RT_GW_USER`	Create the role, then assign it to the application setup user.
`SAP_MARKETING_TECHNICAL_CONF`	Assign it to the application setup user
`SAP_CUSTOMER_ANALYTICS_ADMIN`	Assign it to the application setup user.
`SAP_BC_CTS_ADMIN`	Assign it to the application setup user.
`SAP_BC_SIW_DEV`	Assign it to the application setup user.
`SAP_BC_SEC_AUTH_ADMIN`	Assign it to the application setup user.
`SAP_BC_WEBSERVICE_ADMIN_TEC`	Change the role, then assign it to the application setup user.
`SAP_BC_DB_ADMIN`	Change the role, then assign it to the application setup user.
`SAP_BC_BASIS_ADMIN`	Change the role, then assign it to the application setup user.

In the following, you find information about how to create a specific user with the required roles.

Proceed as follows:

Create Role Z_RT_GW_USER

In order to start external services, you first need to create a new single role and clear your cache:

1. Go to transaction `PFCG` and create a new role.
2. Choose the *Change Authorization Data* pushbutton in the *Edit Authorization Data and Generate Profiles* section on the *Authorizations* tab.
3. When entering the *Change Role: Authorizations* screen you are provided with a list of templates. Select the following template: `/IWFND/RT_GW_USER`. Choose *Adopt References*.
4. You see a yellow light for the *Cross-application Authorization Objects* node. Drill down to *Check at Start of External Services* > *Check at Start of External Services* by expanding the corresponding nodes.
5. Open *Program, transaction or function* in edit mode. In the dialog box that appears, select `TADIR Service` and then choose the *Full Authorization* pushbutton. Save your entries.
6. Choose the *+ Manually* pushbutton, add the `S_USER_GRP` authorization object, and choose *Continue*.
7. Under the *Basis: Administration* node, expand the *User Master Maintenance: User Groups* (`S_USER_GRP`))node.
8. Set the following values for the *User Master Maintenance: User Groups* (`S_USER_GRP`) authorization object:
    1. Open *Activity* (`ACTVT`) in edit mode and choose the *Full authorization* pushbutton. Save your entries.
    2. Open *User group in user master maintenance* (`CLASS`) in edit mode and choose the *Full authorization* pushbutton. Save your entries.
9. Choose the *+ Manually* pushbutton, add the `/UI2/CHIP` authorization object, and choose *Continue*.
10. Under the *Basis: Administration* node, expand the *Page Building Service: CHIP* node.
11. Set the following values for the *Page Building Service: CHIP* (`/UI2/CHIP`) authorization object:
    1. Open *Web Dynpro ABAP: CHIP ID* (`/UI2/CHIP`) in edit mode and set the value to `X-SAP-UI2*`. Save your entries.
    2. Open *Activity* (`ACTVT`) in edit mode and check the value `06` (*Delete*). Save your entries.
12. Generate a profile for the authorizations.

Change Standard Roles

Make changes to the following roles:

- Role `SAP_BC_WEBSERVICE_ADMIN_TEC`:
    1. Call up role `SAP_BC_WEBSERVICE_ADMIN_TEC` in transaction `PFCG` in change mode.
    2. Switch to the *Authorizations* tab and choose the *Change Authorization Data* pushbutton under *Edit Authorization Data and Generate Profiles* .
    3. Expand node *Basis: Administration*, then node *SOAP Runtime: Web Service Provider Configuration* (authorization object `S_SRT_CF_P`). In field *Activity*, add the value **`01`** (*Create*).
    4. Save the changes and generate the profile.

- Role SAP_BC_DB_ADMIN must be enhanced by the authorization for table access:
  1. Call up role SAP_BC_DB_ADMIN in transaction PFCG in change mode.
  2. Switch to the *Authorizations* tab and select the *Change Authorization Data* pushbutton under *Edit Authorization Data and Generate Profiles* .
  3. Expand the *Basis: Administration* node, then expand the *Table Access via Generic Standard Tools* node (authorization object S_TABU_NAM). In field *Activity*, add the values **02** (*Change*) and **03** (*Display*).
  4. Regenerate the profile. Check if a user comparison is required.
- Role SAP_BC_BASIS_ADMIN must be enhanced by the authorization to access the *Trust Manager* for SSL setup purposes:
  1. Call up role SAP_BC_BASIS_ADMIN in transaction PFCG in change mode.
  2. Switch to the *Authorizations* tab and choose the *Change Authorization Data* pushbutton under *Edit Authorization Data and Generate Profiles*.
  3. Expand the *Cross-application Authorization Objects* node, then expand the *Transaction Code Check at Transaction Start* node.
  4. Choose the *+ Manually* pushbutton. Enter the authorization object S_TCODE and choose *Execute*.
  5. Now choose the *Edit* pushbutton next to the transaction code you just created.
  6. In field *'From'*, enter **STRUST**, then save.
  7. Regenerate the profile. Check if a user comparison is required.

> **i Note**
>
> The role changes mentioned above need to be available in all relevant systems such as development, quality, and production systems. You can add the changed roles to a transport request and transport them through your system landscape.

Create a User for Application Setup and Assign the Relevant Roles

Before you assign a single role to a user you have to ensure that its role profile is generated.

To do this, call up the role in transaction PFCG in change mode, switch to the *Authorizations* tab and choose the *Change Authorization Data* pushbutton under *Maintain Authorization Data and Generate Profiles*. Then choose the pushbutton *Generate*.

For more information about profile generation, see section Generating Authorization Profiles of the ABAP platform documentation on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *Securing the ABAP Platform* ▶ *Security Concepts and Tools* ▶ *Identity Management* ▶ *User and Role Administration of Application Server ABAP* ▶ *Configuration of User and Role Administration* ▶ *Role Administration* ▶ *Role Administration Functions* ▶

> **i Note**
>
> Remember to also generate profiles for the single roles included in composite role SAP_MARKETING_TECHNICAL_CONF as well as for all other roles listed below under step 2.

Now, create a user for application setup and assign the following roles.

1. Go to transaction `SU01` to create a new user of type *Dialog* (see tab *Logon Data* on the *Maintain User* screen).
2. Assign the following roles
   - `Z_RT_GW_USER`
   - `SAP_MARKETING_TECHNICAL_CONF` (composite role)
   - `SAP_CUSTOMER_ANALYTICS_ADMIN`
   - `SAP_BC_CTS_ADMIN`
   - `SAP_BC_SIW_DEV`
   - `SAP_BC_WEBSERVICE_ADMIN_TEC`
   - `SAP_BC_DB_ADMIN`
   - `SAP_BC_BASIS_ADMIN`
   - `SAP_BC_SEC_AUTH_ADMIN`

You can lock the users after successful configuration of SAP Marketing. The user is needed again when you carry out an upgrade of SAP Marketing.

7.5.2 User for Technical Jobs

In addition to the user for application setup, which you have created in the previous step (see User for Application Setup [page 36]), you need a user that executes technical jobs in the technical configuration for SAP Marketing. The scenarios included in the technical configuration (see Section "Scenarios" [page 43]) such as the *Essentials* scenario schedule required technical jobs automatically. The technical user required for running these jobs automatically can be your existing batch user or the DDIC user shipped by SAP.

Technical Background

Technical jobs include technical job definitions (transaction `SJOBREPO`), which contain the meta data of the technical job. In a first step, the task list behind a technical configuration scenario sets the required technical job definition in scope. In a second step, the runtime component of the job repository schedules the scoped technical job definitions as a technical job.

DDIC User or Your Batch User?

By default, the DDIC user is used for the regular execution of the technical jobs. As a prerequisite, the DDIC user must exist, so do **not delete the DDIC user** or its profiles.

If you want to execute the technical background jobs of SAP Marketing by your own existing batch user instead, you must ensure that the batch user has the profile `SAP_CEI_BATCH_PROGRAMS`. In addition, you must assign your batch user in program `R_JR_UTIL_1` (function *Set Default Step User*).

For more information about technical jobs, see SAP Note 2190119 - (*Background information about S/4HANA technical job repository*).

7.5.3 Maintaining the Client

SAP Marketing uses Operational Data Provisioning (ODP) for the access of SAP HANA content. For the configuration of ODP within your development and configuration system, you must allow system changes on the relevant clients. To do so, proceed as follows:

1. Log on to the system with the user that you have created in section User for Application Setup [page 36].
2. Execute transaction `SCC4` for client maintenance. Ensure that a logical system is assigned to the client that will be used for SAP Marketing.
   For more information on logical system assignment, see section Setting Up Logical Systems of the ABAP platform documentation on the SAP Help Portal at:
   https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *Securing the ABAP Platform* ▶ *Security Concepts and Tools* ▶ *Identity Management* ▶ *User and Role Administration of Application Server ABAP* ▶ *Configuration of User and Role Administration* ▶ *Central User Administration* ▶ *Setting Up Central User Administration* ▶
3. Set the field *Cross-Client Object Changes* to *No changes to cross-client Customizing objects*.

Then, ensure that the system changes become effective in the BW namespaces:

1. Go to transaction `SE03`.
2. Choose ▶ *Administration* ▶ *Set System Change Option* ▶. Set the *Global* setting to modifiable.
3. Set the attribute *Modifiable* for the namespaces `/BIC/` and `/BI0/`.
4. Set your own namespaces to *Modifiable* by setting component `LOCAL` and customer name spaces to *Modifiable*.

For more information, see section Setting the System Change Option of the ABAP platform documentation on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *Administrating the ABAP Platform* ▶ *Administration Concepts and Tools* ▶ *Administration of Application Server ABAP* ▶ *Change and Transport System* ▶ *Transport Organizer (BC-CTS-ORG)* ▶ *Requirements for Working with the Transport Organizer* ▶

For general information, see section Namespaces and Naming Conventions (BC-CTS-NAM) of the ABAP platform documentation on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *Administrating the ABAP Platform* ▶ *Administration Concepts and Tools* ▶ *Administration of Application Server ABAP* ▶ *Change and Transport System* ▶

In your productive system, you must also ensure that system changes to software component `LOCAL` are allowed:

1. Execute transaction `SE03`.
2. Choose ▶ *Administration* ▶ *Set System Change Option* ▶. Set the *Global Setting* to *Modifiable* in order to be able to set component `LOCAL` to modifiable.
3. Set the component `LOCAL` to *Modifiable*. All other components and name spaces can be set to *Not modifiable*.

7.5.4 Creating Development Packages

You can skip this step if your system is a production system that is supplied with transports from a development and configuration system.

If your system is a development and configuration system, you need to create a separate development package for the following content:

- Generated OData services

The development request need to be transported through your system landscape.

To create the development package, proceed as follows:

1. Log on to the system with the user for application setup that you have created in section User for Application Setup [page 36].
2. Create a workbench request for transports to the productive system (see Releasing Transport Requests in Development System [page 56]).
3. Execute transaction `SE80` and choose the entry *Package* in the dropdown box to the left. Enter a name for the new package for generated OData services, then press the enter key. In the following dialog box, confirm that you want to create a new package. Enter a short description and a transport layer. Confirm your entries.
4. Repeat step 3, this time creating a package for activated BI content.

7.6 Using the Technical Configuration Cockpit

SAP Marketing requires several technical configuration steps that need to be carried out after installation.

> **i Note**
>
> We recommend that you first complete the technical configuration in your development and configuration system, then in the productive system.

The technical configuration cockpit is an application that helps you to carry out the bulk of technical steps.

> **i Note**
>
> Before you start the technical configuration cockpit for the very first time **in a closed system such as a productive system**, the required runtime objects are stored locally, ensure the following settings in your system:
>
> - In transaction `SE03`, under node *Administration* of the *Transport Organizer Tools* tree, double-click *Set System Change Option*. Ensure that the *Global Setting* field as well as the software component *Local Developments (No Automatic Transport)* (`LOCAL`) are set to *Modifiable*.
> - In transaction `SCC4`, double-click the client, in which you want to execute the technical configuration cockpit. Ensure that the *Changes and Transports for Client-Specific Objects* are **not** set to *No changes allowed*. In addition, ensure that *Cross-Client Object Changes* are set to *Changes to repository and cross-client customizing allowed*.
>
> You can change these settings according to your requirements after the very first start of the technical configuration cockpit.

To start the technical configuration cockpit, run transaction `CUAN_TECHNICAL_CONF` with the user for application setup (see section User for Application Setup [page 36]) in your AS ABAP system. First, you have to provide the fully qualified domain main and the port of your SAP Web Dispatcher (see section Configuring the SAP Web Dispatcher [page 32]).

The technical configuration cockpit consists of clickable tiles that are divided into separate sections, which are described in the chapters below.

> **i Note**
>
> To speed up the post-installation process and to avoid errors, we strongly recommend that you use the technical configuration cockpit.

If you are not able to use the technical configuration cockpit due to, for example, authorization restrictions, you can fall back on the expert mode (see section Technical Configuration - Expert Mode [page 171]). In this case, you will need to carry out all steps in the back end, with much less tool assistance.

7.6.1 Section "Overview"

In this section, you are provided with information about your AS ABAP back-end system.

- *SAP Marketing Product Version* provides information about the installed software components and their versions. In addition, you can check whether the installed component versions are compatible with the current release of SAP Marketing, and whether an upgrade is required.
- *Users Online* provides information about the number of logged on users. Based on this information, you can decide whether to start your configuration activities while other activities may be still ongoing in the system.
- *Systems Connected* includes a graphical representation of the most relevant components currently connected in your system landscape, such as SAP Web Dispatcher, or an SAP ERP system. It also indicates the status of the connections and includes other connection information such as server name and port. Erroneous system connections are indicated with red numbers on the tile (*3/7* in red with the status *Action Required*, for example, means that only three of seven connections work properly).
  Note that some components and connections are added during the scenario configuration, depending on your functional scope and integration options.
- **Tiles with SAP Note Information**
  You are provided with the following tiles offering information about SAP Notes to be implemented:
  - *Mandatory Notes for Essentials Scenario* provides information about the SAP Notes to be implemented **before** executing the *Essentials* scenario, and about their current implementation status. Open SAP Notes that are still to be implemented are indicated with red numbers on the tile (*3/7* in red with the status *Action Required*, for example, means that only three of seven mandatory SAP Notes are implemented).
  - *SAP Marketing Application Notes* provides information about optional SAP Notes related to the various SAP Marketing applications or integrations. If you have an application or integration, to which a note refers, in scope, you must implement the note after you have completed the installation procedure (see section SAP Notes for Installation and Upgrade [page 170]). The number on the tile indicates the number of available SAP Notes.

  The SAP Note information of both tiles is derived from the Release Information Note (RIN), which you can access directly from within the tiles. You can download the relevant SAP Notes into your system. Implement the SAP Notes using transaction `SNOTE` in your AS ABAP back-end system.

- *Scenario Check* provides information about the current technical configuration status of your SAP Marketing system and corresponding solutions in case the check detects errors. Is the system ready for use or does it require additional adaptations or corrections to be carried out? The check starts automatically when the technical configuration cockpit is launched. It refers to and displays scenarios that have been executed minimum one time and covers the following scenarios: *Essentials*, *ERP Integration*, and *CRM Integration*. The following check statusses are possible:
  - *Check Successful*
    If the scenario check is successful the system is ready for use with no additional adaptations.
  - *Solutions Available*
    If solutions are available the check detected errors in at least one of the already executed scenarios and offers more information on the check's detail screen.

  On the details screen of the check, you are provided with the *Check* and the *Solve* views:
  - On the *Check* view, you are provided with information about the check result and the latest check date for each scenario. In addition, you can drill down into the check results for different configuration tasks using the *Show Details* pushbutton.
  - The *Solve* view offers detailed solutions with step by step descriptions for configuration tasks with errors.

  The *Run Check* pushbutton allows you to re-execute the scenario check, for example, to update the check result after you fixed an error or executed an additional scenario.

  > **i** Note
  >
  > Be prepared that re-executing the check can take up to a few minutes.

7.6.2 Section "Scenarios"

In this section, you are provided with the available technical configuration scenarios. With the scenarios, the cockpit follows an additive approach dividing the technical configuration into smaller executable parts: the basic configuration (scenario *Essentials*), which is mandatory, and additional configuration that is optional and depends on your scope.

You can execute any optional scenario at any time, either directly after the execution of *Essentials*, or at a later point in time.

Every scenario consists of a description, the *Progress* section, and the *Parameters* section.

The *Progress* section is visible only once the configuration check or the configuration run has been started. It includes clickable icons representing a task of the task list behind the scenario. Clicking the icon provides you with more information about task and its configuration status.

In the *Parameters* section you have to provide the required input. The parameter fields are explained below in the dedicated scenario descriptions for each scenario.

Once you provided the parameter values for a scenario, you choose the *Check Configuration* pushbutton first, to let the system check your input. If the check is completed successfully, you choose the *Run Configuration* pushbutton to execute the technical configuration scenario.

> **i** Note
>
> You can run every configuration multipe times by choosing the *Run Configuration* pushbutton.

The following scenarios are available:

- *Essentials*
- *ERP Integration*
- *CRM Integration*
- *HANA Rules Framework*
- *Campaign Management*
- *Lead Management with Cloud for Customer Integration*
- *Recommendation*

7.6.2.1 Scenario "Essentials"

> **i** Note
>
> This scenario is mandatory for the setup of SAP Marketing and must be executed before any other scenario. The scenario enables a basic configuration that allows the display of the SAP Marketing user interface without any integration to other systems once all following steps (of section *Post-Installation*) are carried out.

The following is an extract of the steps that are automatically carried out by *Essentials*:

- The execution of **task list** `CUAN_BASE_CONFIG` is automatically triggered.
- **Users** needed for post-installation steps are created automatically (where possible)
- **Workbench and Customizing requests** are created (for development systems):

Customizing Requests	○ *Common Customizing Activities*
Workbench Requests	○ *Common Workbench Objects*

> **i** Note
>
> The transport requests must be released manually and imported in the production system in a predefined sequence. For details, see Releasing Transport Requests in Development System [page 56].

- **OData services** are activated (for development systems).
- **Background jobs** are scheduled and executed.
  In transaction `SJOBREPO`, you can check, which jobs are delivered with SAP Marketing. The name of the relevant job definitions is `SAP_CUAN_<*>`, while job definitions and job names are identical. In column *JD Status* (Job Definition Status), you can check whether a job definition is scheduled in a task list. By double-clicking a job definition, you can see the meta data of a job such as frequency or name of the corresponding program.
  In transaction `SM37`, you can check which jobs are scheduled or executed. In addition, you can change the default frequency of regular background jobs.
- **Full text indexes** are generated.

You must provide values for the following parameters in *Essentials*:

- *Role of System*:
  For this field, you have the following options:
  - *Dev. System*: If you run the technical configuration in a development or configuration system (such as an integration system), the system creates objects according to your settings in the wizard and writes them to a transport request.
  - *Prod. System*: If you run the technical configuration in a production system (such as a consolidation system), the system does not create any objects according to your settings in the wizard, but the system is capable to import objects via a transport request from a development or configuration system.
  - *Local System*: If you run the technical configuration in another system (such as a demo system), the system creates objects according to your configuration settings, but does **not** write them to a transport request.

  > ⚠ Caution
  >
  > Note that changing the *Role of System* entry is not possible anymore once you have started the technical configuration.
  >
  > For example, if you configured the system as a demo system you cannot convert it into a development or production system. These system types would need to be created from scratch.

  > ℹ Note
  >
  > Ensure that the selected system type matches with the corresponding entries in transaction `SCC4` (field *Client role* and related entries):
  >
  > - If you select *Dev. System* in field *Role of System*, the entry in the *Client role* field (transaction `SCC4`) must be other than *Production*.
  > - If you select *Prod. System* in field *Role of System*, the entry in the *Client role* field (transaction `SCC4`) must be other than *Customizing*.

- *User for SAP HANA Database Connection*:
  In this field, you enter the SAP HANA user that you created in section SAP HANA User for Technical Configuration [page 29]. The user enables executing changes, for example, granting privileges to other users, in the SAP HANA database during the configuration of the system. By default, the user is `TC_USER`. As you need the user also for an upgrade of SAP Marketing, we recommend to deactivate the user after technical configuration rather than deleting it.
- *Password*:
  In this field, you enter the password of the SAP HANA user that you created in section SAP HANA User for Technical Configuration [page 29]. The password is stored in the secure store. As you need the user and password also for an upgrade of SAP Marketing, we recommend to document the password outside the system.
- *Fully Qualified Domain Name*:
  In this field, you indicate the domain name of the installed and configured SAP Web Dispatcher (see section Configuring the SAP Web Dispatcher [page 32]) for your system in the following format: `<3rd-level-label>.<2nd-level-label>.<Top-Level-Domain>.<root-label>`, for example, `mywebdispatcher.wdf.sap.corp`.
  If you already specified the domain name in transaction `CUAN_TECHNICAL_CONF` before initially opening the technical configuration cockpit, the field is already prefilled, and you can skip this step.

- *Port*:
  In this field, you indicate the port of the installed and configured SAP Web Dispatcher (see section Configuring the SAP Web Dispatcher [page 32]), for example, `10100`.
  If you already specified the port in transaction `CUAN_TECHNICAL_CONF` before initially opening the technical configuration cockpit, the field is already prefilled, and you can skip this step.
- *OData Service Package*:
  This field is only available if you selected *Dev. System* in the *Role of System* field (see above).
  Enter the package that you created for OData service generation in section Creating Development Packages [page 41].

7.6.2.2 Scenario "ERP Integration"

You have the option to integrate SAP Marketing with your existing SAP ERP system to use your SAP ERP data such as accounts and contacts within SAP Marketing. In this case, the SAP ERP data is either reused (in case of co-deployment of SAP ERP with SAP Marketing on the same SAP HANA database), or replicated to your SAP Marketing system using the SAP Landscape Transformation Replication Server (SAP LT). For more information, see Data Replication [page 24].

For the optional integration with SAP ERP, you must specify the following parameters:

- *SAP ERP Deployment*:
  By default, the parameter is set to *No Integration*. Choose one of the following alternatives for the business data integration with SAP ERP:
  - *Reuse of Original Suite Schema*: You can co-deploy SAP ERP and SAP Marketing on the same SAP HANA database.
  - *Use of Replicated Suite Schema*: You can replicate the required business data from the SAP ERP system into the SAP HANA database of SAP Marketing.

  Before you run the scenario, create the RFC destinations to the SAP ERP client.
- *SAP ERP Source Data Client*
  Enter the source client number of the SAP ERP system.
- *RFC Destination to SAP ERP System*
  Enter the name of the RFC destination to your SAP ERP source client.

If you use the option to co-deploy SAP Marketing on the same database SAP HANA database as your SAP ERP system, specify the following parameter:

- *SAP ERP Schema*
  Enter the name of your original ERP schema.

If you use the option of replicating the SAP ERP business data, specify the following parameters:

- *RFC Destination to LT System* for your SLT instance
- *SAP LT Configuration Name* as specified within your SLT configuration
- *SAP LT HANA Target Host*
  Enter the host ID as specified within your SLT configuration.
- *SAP LT HANA Target Host Inst.*
  Enter the instance number as specified within your SLT configuration.
- Select the option *One Time Initial Data Load Only* if you want to replicate the business data once for an initial load. As a result, any changes in the source system are not reflected in your replicated business data.

7.6.2.3 Scenario "CRM Integration"

You have the option to integrate SAP Marketing with your existing SAP CRM system to use your SAP CRM data such as accounts and contacts within SAP Marketing. In this case, the SAP CRM data is either reused (in case of co-deployment of SAP CRM with SAP Marketing on the same SAP HANA database), or replicated to your SAP Marketing system using the SAP Landscape Transformation Replication Server (SAP LT). For more information, see Data Replication [page 24].

For the optional integration with SAP CRM, you must specify the following parameters:

- *SAP CRM Deployment*
  By default, the parameter is set to *No Integration*. Choose one of the following alternatives for the business data integration with SAP CRM:
  - *Reuse of Original Suite Schema*: You can co-deploy SAP CRM and SAP Marketing on the same SAP HANA database.
  - *Use of Replicated Suite Schema*: You can replicate the required business data from the SAP CRM system into the SAP HANA database of SAP Marketing.

  Before you run the scenario, create the RFC destination to the SAP CRM client, and specify the HTTPS connection to the SAP CRM source system:
- *SAP CRM Source Data Client*
  Enter the source client number of the SAP CRM system
- *RFC Destination to SAP CRM System*
  Enter the name of the RFC destination to your SAP CRM source client.
- Specify the following for the *HTTPS Connection to SAP CRM Source System*:
  - *Fully Qualified Host Name*
  - *HTTPS Port*

If you use the option to co-deploy SAP Marketing on the same database SAP HANA database as your SAP CRM system, specify the following parameter:

- *SAP CRM Schema*
  Enter the name of your original CRM schema.

If you use the option of replicating the SAP CRM business data, specify the following parameters:

- *RFC Destination to LT System* for your SLT instance
- *SAP LT Configuration Name* as specified within your SLT configuration
- *SAP LT HANA Target Host*
  Enter the host ID as specified within your SLT configuration.
- *SAP LT HANA Target Host Inst.*
  Enter the instance number as specified within your SLT configuration.
- Select the option *One-Time Initial Data Load Only* if you want to replicate the business data once for an initial load. As a result, any changes in the source system are not reflected in your replicated business data.

For more information about the integration with SAP CRM, see SAP CRM Business Transactions and SAP Marketing Interactions [page 81].

7.6.2.4 Scenario "HANA Rules Framework"

The SAP HANA rules framework (HRF) allows you to manage and automate business decisions based on rules and rule services. HRF is availabe as a SAP HANA deployment unit, which uses SAP HANA extended application services, classic model (SAP HANA XS Classic).

Within SAP Marketing, HRF is used for the following options:

- **Scoring Based on SAP HANA Rules Framework in SAP Marketing**:
  HRF helps you to manage your heuristic scoring models in the *Score Builder* app.
  For more information, see Scoring Based on SAP HANA Rules Framework (HRF) [page 70].

  > **i** Note
  >
  > HRF for *Score Builder* will be deprecated in one of the future releases.

- **Suppression Rules**:
  HRF helps you to manage the rules by which you can control whether and how often a campaign interacts with contacts in the *Suppression Rules* app.
  For more information, see Setting Up Suppression Rules [page 157].

  > **i** Note
  >
  > The *Suppression Rules* app will be deprecated in one of the future releases.

If you want to use one of the options above, proceed as follows:

Prerequisites

Prior to execute the scenario *HANA Rules Framework* in the technical configuration cockpit, you must carry out the following steps:

- **Installing the SAP HANA Rules Framework**
  You must install the SAP HANA rules framework separately on the specific tenant database of the SAP HANA appliance. For the required version of HRF, see the release information note (RIN) for SAP Marketing, 1885803. For the installation procedure, see the SAP HANA Rules Framework on XS Classic - Installation and Upgrade Guide on the SAP Help Portal at:
  https://help.sap.com/hrf10 **Select the required version in the "Version" field** *Installation and Upgrade*.

  > **i** Note
  >
  > Since you have already installed SAP HANA, you can skip section Installing/Updating the SAP HANA Appliance Software in this guide. The relevant sections are the following:
  >
  > - Downloading the Software
  > - Deploying the SAP HANA Rules Framework Software Component
  >
  > The additional sections about the HRF configuration can be skipped as they are automatically covered by the execution of the technical configuration scenario (see below, subsection *Executing the Scenario "HANA Rules Framework"*).

- **Ensuring Activation of the SAP HANA XS Classic Engine**
  DataActivate the XS Classic engine on the tenant database because the access to the HRF components on the database (for example, from the user interface) is realized via the SAP HANA XS Classic server. To do so, follow the instructions in section Add or Remove Services in a Tenant Database of the SAP HANA Administration Guide on the SAP Help Portal at:
  http://help.sap.com/hana_platform **Select the required version in the "Version" field** ▶ *Administration* ▶ *SAP HANA Administration Guide* ▶ *System Administration* ▶ *Managing Tenant Databases* ▶ *Creating and Configuring Tenant Databases* ▶ *Monitoring and Managing Tenant Databases* ▶ *Add or Remove Services in a Tenant Database* ▶
- **Configuring Access to Tenant Database**
  Set up the internal SAP Web Dispatcher, included in SAP HANA, to enable the correct routing of HTTP(S) requests from the user interface to the HRF components on the tenant database via the SAP HANA XS Classic server. To do so, follow the instructions in section Configure HTTP(S) Access to Tenant Databases via SAP HANA XS Classic of the SAP HANA Tenant Databases Operations Guide on the SAP Help Portal at:
  http://help.sap.com/hana_platform **Select the required version in the "Version" field** ▶ *Administration* ▶ *SAP HANA Administration Guide* ▶ *Application Run-Time Services* ▶ *Maintaining the SAP HANA XS Classic Model Run Time* ▶ *Maintaining HTTP Access to SAP HANA* ▶ *Configure HTTP(S) Access to Tenant Databases via SAP HANA XS Classic* ▶
- **Configuring SSL for SAP HANA XS Classic Engine**
  Set up secure communication between Web-based clients and SAP HANA extended application services, classic model.
  For information how to establish the secure communication, see the following instructions in the SAP HANA documentation:
  - Section Secure Communication Between SAP HANA XS Classic and HTTP Clients of the SAP HANA Security Guide at:
    http://help.sap.com/hana_platform **Select the required version in the "Version" field** ▶ *Security* ▶ *SAP HANA Security Guide* ▶ *SAP HANA Network and Communication Security* ▶ *Securing Data Communication* ▶ *Secure Communication Between SAP HANA XS Classic and HTTP Clients* ▶
  - Section Configure HTTPS (SSL) for Client Application Access of the SAP HANA Administration Guide under:
    http://help.sap.com/hana_platform **Select the required version in the "Version" field** ▶ *Administration* ▶ *SAP HANA Administration Guide* ▶ *Application Run-Time Services* ▶ *Maintaining the SAP HANA XS Classic Model Run Time* ▶ *Maintaining HTTP Access to SAP HANA* ▶ *Configure HTTPS (SSL) for Client Application Access* ▶

  You must establish a trust relationship between your AS ABAP server and your SAP HANA database later on. For this reason, you either export the certificate of your SAP HANA server or the Certificate Authority (CA) root certificate, which has been used to sign the SAP HANA server certificate. Provide the certificate to the AS ABAP administrator who performs the SSL setup of the AS ABAP system.

> **i Note**
>
> If you use the tenant database, which has been prepared with the installation of the SAP HANA database, the SAP HANA XS Classic engine should be active, the access to the HRF components on the tenant database should be enabled, and the SSL for the XS Classic engine should be configured.
>
> In this case, you do not have to **execute** but only to **verify** the steps mentioned under the last three bullet points above.

→ Recommendation

You can display and copy the certificates of the SAP HANA server to the file by connecting your internet browser to the address *https://<host name of SAP HANA server>:43<instance number>*, and choosing the lock symbol in the address bar.

For more information, see SAP Note 1094342.

Executing the Scenario "HANA Rules Framework"

For the use of HRF, you must specify the following parameters:

- *HANA Fully Qual. Hostname*: Enter the name including domain details of your SAP HANA extended application services, classic model (SAP HANA XS Classic).
- *HANA XS HTTPS Port Number*: Enter the SSL port number of your SAP HANA XS Classic.

7.6.2.5 Scenario "Campaign Management"

The applications belonging to *Campaign Management* allow the efficient planning and execution of marketing campaigns, which aim to increase the merchandise sales of individual products or the company as a whole, and to increase the customer retention to the company.

The main features include the creation of marketing campaigns and their execution using various communication channels such as emails or text message.

i Note

The *Campaign Management* applications are available only if *SAP Marketing Acquisition* is active.

If you want to use the *Campaign Management*, proceed as follows:

Executing the Scenario "Campaign Management"

For the use of the *Campaign Management* applications, you must specify the following parameters:

- *SAP Web Dispatcher Settings for Tracking and Bouncing*
  Enter the *Fully Qualified Domain Name*, and the corresponding *Port* of the SAP Web Dispatcher you use to enable the tracking for messages.
- *SAP Mobile Services for Sending Text Messages*
  If you want to use the option *Enable Text Messaging Integration*, make sure you have an SAP SMS 365 account available. In addition, specify the following:
  - *User* for your account
  - *Password* for your account

- *Path Prefix*: Part of the URL made available by your provider that identifies the web service for your account. For example, in the URL `https://sms-pp.sapmobileservices.com/cmn/<accountid>/<accountid>.sms`, the path prefix is `/cmn/<accountid>/<accountid>.sms`.

- *SAP Mobile Services for Sending Email Messages*
  Choose the option *Enable Mobile Service Integration* to enable sending emails using SAP Mobile Service. Make sure you have an SAP Mobile Service account available. Specify the *User*, and the *Password* for the SAP Mobile Service account. In addition, specify the path prefix (part of the URL that identifies the web service for your account).
- *Amazon Services for Sending Email Messages*
  If you want to use the option *Enable Amazon Email Integration*, make sure you have created an Amazon web services (AWS) account for using the Amazon Simple Email Service (Amazon SES). You can create access keys using the AWS Management Console. To use the option specify the following parameters:
  - *Amazon Access Key ID*, and *Amazon Secret Access Key* for your account
  - Define a name for the *Amazon Feedback Queue*. Configure the Amazon email service to collect all bounces and complaints in a queue on the Amazon Queue Service. Make sure the feedback queue name matches the queue name that is set up on Amazon's side. The feedback queue path is the last individual part of the queue URL at Amazon. For example, in the queue URL `https://sqs.eu-west-1.amazonaws.com/NNN/ABC`, the feedback queue path is `/NNN/ABC`.
- *Firebase for Sending Mobile Push Notifications*
  Choose the option *Firebase Integration* to enable the creation of mobile campaigns to send marketing offers and messages to mobile devices as push notifications using Firebase Cloud Messaging. As a prerequisite, you have a valid Firebase account, created a corresponding project, and received the Firebase API key.
  Specify this key in the *Firebase Key* fields. If the Firebase key is longer than 255 characters, split the key in two parts and enter it accordingly in the two key fields.
- *Configuration for Data Buffer*
  The option *Enable Data Buffer Settings* sets up a data buffer servlet application, which you can deploy in any Web application server. The servlet application prevents you from any loss of your contacts' interaction data in case of a downtime of your AS ABAP system (for example, during system upgrades). In particular, the advantages of the data buffer are the following:
  - In case of a system downtime, all inbound interaction requests are buffered in the data buffer servlet application. Once the system is back, a pull report, which is scheduled every minute, pulls the buffered interactions and creates the interactions in the AS ABAP system.
  - In case of a system downtime, the redirection of trackable links do not fail for you contacts, as these redirections are served by the data buffer servlet application.
  - The data buffer prevents you from denial of service attacks as anonymous requests are not served by the public ICF node, but by the servlet application.
  - The data buffer can prevent your URLs of being tampered if the HMAC validation is active (see below) as tampered URLs will not pass the validation, thus will not be processed.

  Settings
  - **RFC Destination**
    You create an RFC destination establishing a connection between your AS ABAP system and the system hosting the servlet application. You can either create a new RFC destination or use an already existing RFC destination by indicating the corresponding *RFC Destination Name*, *User*, *Password*, and *Host*.
  - **Change Link Tracking Settings**
    If you use a data buffer, the interactions created when a customer clicks a trackable redirect link in an email, are not sent to your AS ABAP system but to your data buffer servlet application. As the servlet

application is installed on your Web application server, you must indicate the host and port information of this server for your trackable links in fields *Host for Link Tracking* and *Port*.

- **Change Mobile Ch. Tracking**
  This option is not enabled in SAP Marketing.

For more information about the data buffer configuration, see the SAP Marketing Data Buffer Configuration Guide.

- *HMAC Validation Settings*
  The *Activate HMAC Validation* option (HMAC = hash-based message authentication code) sets up a validation check for your interactions. The check verifies that the interactions came from the stated sender and have not been changed.
  By default, the *Mandatory Validation Start* date is set to the current date. If you want to adapt this date, for example, to also validate interactions from earlier mails from your customers, you can enter the required date in format `YYYMMDD`. Note that URLs, which do not comply with HMAC validation, are rejected after the specified date.
- *Digital Asset Management*
  The integration with Digital Asset Management allows you to search for, and to insert images into messages. Choose an option depending on the external system you use. For the option *Open Text*, specify the *User*, and the *Password*.
  When you choose one of the options an empty RFC destination (HTTP connection to external server) is created:
  - RFC for *Product Content Management*: `CEI_ME_DAM_HYBRIS`
  - RFC for *Open Text*: `CEI_ME_DAM_OPENTEXT`

  Maintain the RFC destination according to requirements of the external system you use, for example, specifying target host, service number, logon. Use backend transaction *RFC Destinations* (`SM59`) to maintain the RFC destination.

7.6.2.6 Scenario "Lead Management with Cloud for Customer Integration"

This scenario covers the technical configuration for the usage of the following applications or features:

- **Lead Management**
  Lead Management integrates the business process between marketing and direct or indirect sales channels, to drive higher-value opportunities through improved demand creation, execution, and opportunity management. It comprises all measures a company takes to convert potential buyers and interested persons to real buyers.
  For more information, see section Leads and Accounts in the application help for SAP Marketing on the SAP Help Portal at:
  https://help.sap.com/mkt-op ▶ *Application Help* ▶ *SAP Marketing* ▶ *SAP Marketing Applications* ▶ *Lead Management* ▶
  The *Lead Management* business group in SAP Marketing includes the following applications:
  - *Lead Dashboard*
  - *Score Builder*
  - *Lead Stages*
  - *Transfer Leads*

- **Call Center Integration with SAP Cloud for Customer**
  In *SAP Marketing Acquisition*, you are provided with the option to trigger SAP Cloud for Customer call qualifications to the SAP Cloud for Customer system directly from a campaign in your SAP Marketing system. For more information, see Setting Up Call Center Integration with SAP Cloud for Customer [page 163].

The following prerequisites and dependencies apply for the *Lead Management* applications and for the Call Center Integration with SAP Cloud for Customer:

Application/Integration	Prerequisite
Lead Dashboard	• *SAP Analytics Cloud* must be installed and configured (see section Integration with SAP Analytics Cloud (1SO) in the Integration Guide for SAP Marketing on the SAP Help Portal at: https://help.sap.com/mkt-op ▶ *Integration* ▶ *Integration Guide* ▶) • SSL for SAP HANA XS Classic Engine must be configured (see section *Configuring SSL for SAP HANA XS Classic Engine* under *Prerequisites* in section Scenario "HANA Rules Framework" [page 48])
Score Builder	• Technical configuration scenario *HANA Rules Framework* must be executed (see section Scenario "HANA Rules Framework" [page 48]) **i Note** The *HANA Rules Framework* will be deprecated in one of the future releases.
Lead Stages	• *Lead Management* indicator in technical configuration scenario *Lead Management with Cloud for Customer Integration* must be selected
Transfer Leads	• SAP Cloud for Customer must be installed and configured (see section *Setting Up Integration with SAP Cloud for Customer* below) • *Lead Management* and *C4C Integration* indicators in technical configuration scenario *Lead Management with Cloud for Customer Integration* must be selected
Call Center Integration with SAP Cloud for Customer	• SAP Cloud for Customer must be installed and configured (see section *Setting Up Integration with SAP Cloud for Customer* below) • *C4C Integration* indicator in technical configuration scenario *Lead Management with Cloud for Customer Integration* must be selected

Setting Up Integration with SAP Cloud for Customer

If you want to use the *Transfer Leads* application or the Call Center Integration with SAP Cloud for Customer, you must set up the integration with SAP Cloud for Customer before you execute the *Lead Management with Cloud for Customer Integration* scenario.

To do so, proceed as follows:

The integration of SAP Cloud for Customer is based on an integration system. You have two options concerning your integration system:

- *SAP Process Integration* (PI), an on premise solution
  The minimum required release is SAP PI 7.3 with OData adapter `PIADAPTERS02_7-20012293.SCA`.
- *SAP Cloud Platform Integration*, a cloud solution

For more information, see the corresponding integration guide on SAP Help Portal at:

Integration with SAP Marketing

(https://help.sap.com/c4c_re ▶ *Integration* > *View All* > *Prepackaged Integration with SAP Marketing* ◀)

For information about how to set up the *SAP Process Integration* system, see Integrating SAP Cloud for Customer with SAP Marketing using SAP Process Integration.

For information about how to set up the *SAP Cloud Platform Integration* system, see Integrating SAP Cloud for Customer with SAP Marketing using SAP Cloud Platform Integration.

Web Services Reliable Messaging

Web Services Reliable Messaging (WS-ReliableMessaging) describes a protocol that allows messages to be delivered reliably between distributed applications in the presence of software component, system, or network failures.

To be able to use Web services with WS-ReliableMessaging, you must configure the Web service runtime. In each productive client and in client 000, execute the technical setup in transaction `SRT_ADMIN` of your SAP Marketing back-end system.

For information about how to configure the Web service runtime, see section Configuring the Web Service Runtime of the ABAP platform documentation on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* > *ABAP Platform* > *Developing on the ABAP Platform* > *Development Concepts and Tools ABAP* > *Application Development on AS ABAP* > *ABAP Workbench - Classic* > *ABAP Workbench Tools* > *ABAP Web Services* > *Operating Web Services* ◀

Executing the Scenario "Lead Management with Cloud for Customer Integration"

For the use of the *Lead Management with Cloud for Customer Integration*, you must specify the following parameters:

- *Lead Management*
  Select this indicator to activate *Lead Management* applications along with the corresponding SAP HANA content and BC sets in your system.
- *C4C Integration Configuration*
  This parameter controls the configuration of the SAP Cloud for Customer in your system. Select this indicator to set up the RFC destination to SAP Cloud for Customer and logical ports to *SAP Process Integration* (PI) and *SAP Cloud Platform Integration* (CPI).

Set the following parameters:

- *Host Name of C4C:*
  Fully qualified domain name of your SAP Cloud for Customer system (UI front end) for UI navigation. Example: `myUiServer.ondemand.com`.
- *Port for C4C:*
  Enter the port number of your SAP Cloud for Customer system (UI front end). Example: *443* (This is the default https port).
- *Proxy Server (optional):*
  Fully qualified domain name of your proxy server for the PI/CPI communication. Use these parameters if you require a proxy server to allow network connections to servers outside of your network.
- *Proxy Port (optional):*
  Port number of your proxy server for the PI/CPI communication.
- *Proxy User (optional):*
  If required, replace the default by the service port number of your target host.
- *Proxy User Password (optional):*
  Password for the proxy server user for the PI/CPI communication.
- If you want to replicate campaign information from SAP Marketing to SAP Cloud for Customer, select the *Activate Campaign Transfer* checkbox.
  Once selected, you have to provide the following additional parameter:
  - *URL Access Path for Campaign:*
    Service path of the PI/CPI server for communicating campaigns.
    - *Example for PI systems:* `/XISOAPAdapter/MessageServlet?channel=:<yMKT system name>_<client>:<yMKT system name>_SOAP_CampaignReplicationNotification_Out`
    - *Example for CPI systems:* /cxf/yMKT/C4C/CampaignReplicationNotification_<yMKT system name><client>
- *URL Access Path for Lead:*
  Service path of the PI/CPI server for communicating leads.
  - *Example for PI systems:* `/XISOAPAdapter/MessageServlet?channel=:<yMKT system name>_<client>:<yMKT system name>_SOAP_LeadReplRequest_Out`
  - *Example for CPI systems:* /cxf/yMKT/C4C/LeadReplicationRequest_Out_<yMKT system name><client>
- *URL Access Path for Activity:*
  Service path of the PI/CPI server for communicating activities.
  - *Example for PI systems:* `/XISOAPAdapter/MessageServlet?channel=:<yMKT system name>_<client>:<yMKT system name>_SOAP_ActivityReplication_Out`
  - *Example for CPI systems:* /cxf/yMKT/C4C/ActivityReplicationOut_<yMKT system name><client>
- *Host Name of PI/CPI:*
  Fully qualified domain name of your PI/CPI server.
- *Port of PI/CPI:*
  Port number of your PI/CPI server.
- *PI/CPI User:*
  User of the PI/CPI server.
- *PI/CPI Password:*
  Password of the PI/CPI user.

7.6.2.7 Scenario "Recommendation"

The applications belonging to *Recommendation* allow business analysts and marketing experts to create recommendation models that provide consumers with relevant recommendations in real time, simultaneously across multiple sales channels. Recommendation models leverage algorithms and SAP HANA to query and retrieve recommendations from sales or business event data.

> **i** Note
>
> The *Recommendation* applications are available only if *SAP Marketing Recommendation* is active.

If you want to use *Recommendation*, proceed as follows:

Executing the Scenario "Recommendation"

For the use of the *Recommendation* applications, you must execute the scenario **without** specifying any of the available parameters. Note that the parameters are obsolete.

7.7 Applying Technical Configuration Artifacts to Production System

In your development and configuration system, the *Essentials* scenario in the technical configuration cockpit automatically creates transport requests with repository and Customizing objects (see Scenario "Essentials" [page 44]).

To make the artifacts - created during technical configuration in the development system - available in the production system, you must carry out the following two steps:

- In the development and configuration system, release the transport requests.
- In the production system, import the transport requests in a specific sequence and execute the technical configuration

7.7.1 Releasing Transport Requests in Development System

To release the transport requests in your **development system**, proceed as follows:

1. Log on to the **development** system with the User for Application Setup [page 36].
2. Go to transaction `SE09` and release and transport the following requests in the following sequence:
    1. Workbench Request created manually for the development packages (see Creating Development Packages [page 41]).
    2. Customizing Request: *Common Customizing Activities*

3. Workbench Request: *Common Workbench Objects*

7.7.2 Importing Transport Requests and Executing Technical Configuration in Production System

After you have carried out the technical configuration and released the relevant transport requests in your development system, you need to import the requests and execute the technical configuration of the *Essentials* scenario in the **production system**.

Proceed as follows in the **production system**:

1. Log on to the **production** system with the User for Application Setup [page 36].
2. Go to transaction `STMS_IMPORT` and import the requests listed above in the specified sequence:
   1. Workbench Request created manually for the development packages (see Creating Development Packages [page 41]).
   2. Customizing Request: *Common Customizing Activities*
   3. Workbench Request: *Common Workbench Objects*
3. Execute the *Essentials* scenario in the technical configuration cockpit in the **production system** (see section Scenario "Essentials" [page 44]).

> **i Note**
>
> When importing the transports into the production system, ensure that the client-specific Customizing is transported to the client, in which you execute the technical configuration.

7.8 Initial Setup of SAP Fiori

Set up the administrator role as well as the end user role for SAP Fiori by following the instructions described in the following two sections of the ABAP platform documentation on the SAP Help Portal at:

- Protecting Access to Launchpad Designer at:
  https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *UI Technologies* ▶ *SAP Fiori Launchpad* ▶ *Administration Guide* ▶ *Initial Setup of the Launchpad* ▶ *Initial Setup of the Launchpad Designer* ▶
- Configuring Roles with Launchpad Start Authorizations at:
  https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *UI Technologies* ▶ *SAP Fiori Launchpad* ▶ *Administration Guide* ▶ *Initial Setup of the Launchpad* ▶ *Configuring Authorization Roles* ▶ *Configuring Roles with Launchpad Start Authorizations* ▶

Now go to to transaction `PFCG`, create a new role (for example **`ZCHIP_FOUNDATION`**) and add the following authorizations

Authorization Object	Web Dynpro ABAP	Activity
/UI2/CHIP	X-SAP-UI2-CHIP*	03
/UI2/CHIP	X-SAP-UI2-PAGE*	03,16
S_PB_CHIP	X-SAP-UI2-CHIP*	03

Authorization Object	Activity	Package	Object Name	Object Type	Authorization Group ABAP / 4 Program
S_DEVELOP	03	*	X-SAP-UI2-CHIP*	*	*
S_DEVELOP	03, 16	*	X-SAP-UI2-PAGE*	*	*
S_DEVELOP	03	/UI2/SERVICES_PB_UTIL_700	/UI2/*	WDCC	*

Authorization Object	Activity	Request Type
S_TRANSPRT	03	*

Generate the profile. Now assign the new role to all your business and administration users.

7.9 Displaying the SAP Online Documentation

SAP currently provides an HTML-based solution for the online documentation, including the Application Help, the Web Assistant, Glossary, Implementation Guide (IMG), and Release Notes. You can display the documentation with a JavaScript-compatible Web browser on all front-end platforms supported by SAP.

To ensure the display of the online documentation in SAP Marketing, you must do the following:

1. You have assigned the SAP Fiori catalog SAP_CEC_BC_MKT_COM_OP to a PFCG role.
2. **Considering documentation-relevant parameters in your SAP Web Dispatcher configuration**
   If you want to make context-sensitive user assistance available in the SAP Fiori launchpad, you must configure the SAP Web Dispatcher. You have already executed the relevant steps, which are included in the previous chapter about SAP Web Dispatcher configuration, see section *Considering Documentation-Relevant Parameters* in Configuring the SAP Web Dispatcher [page 32].
3. **Enabling context-sensitive user assistance in your AS ABAP system**
   You need to do these settings in the AS ABAP system which you use to create your system configuration setting. After you have done the settings, you save them, create a transport for them, and transport them to your productive system(s).

Proceed as follows:

1. Open transaction `SR13`.
2. Select the tab *PlainHtmlHttp*.
3. Choose *New Entry*. Enter the following values:

Name	Value to Be Entered
Variant	Enter a name for the variant (any name).
Platform	Select the platform relevant for your implementation, for example, **NONE**.
Area	Select *XML Documentation*. This will display as *XML_DOCU* in the table.
Server Name	Enter **https://help.sap.com/http.svc/ahp2/**
Path	Enter **SAP_MARKETING/1909.YMKT**
Language	Select the language you need.
Default	Select **one** entry as default per platform.

4. Repeat step 3 for each relevant platform and language.
5. Save your changes and create a transport.

4. Setting up the User Assistance Plugin

7.10 Defining a Virus Scan Profile

In order to adhere to security standards, we recommend that you use a virus scanner. The scanner performs checks in various SAP Marketing applications. For example, the scanner checks the HTML code of emails in *SAP Marketing Acquisition*.

To use a virus scanner with the SAP Marketing system, you must activate and set up the virus scan interface by maintaining the corresponding profile in Customizing of the virus scanning. During this process, you set up the default behavior. SAP also provides standard profiles.SAP Marketing uses the standard virus scan profile `/SIHTTP/HTTP_UPLOAD`.

For detailed information about the virus scanner setup procedure, see section SAP Virus Scan Interface of the ABAP platform documentation on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *Securing the ABAP Platform* ▶ *Secure Programming* ▶ *Secure Programming - ABAP* ▶ *Secure Programming* ▶ *SAP Virus Scan Interface* ▶

You can switch on, or switch off the virus scanner in SAP Gateway using the corresponding activity in the *SAP Customizing Implementation Guide* (transaction `SPRO`) under ▶ *SAP NetWeaver* ▶ *Application Server* ▶ *System Administration* ▶ *Virus Scan Interface* ▶.

> **i Note**
>
> SAP strongly recommends to keep the virus scan switched on.

> **i Note**
>
> Make sure that you complete this Customizing step as part of the installation process.

7.11 Generating Authorization Profiles for the User Interface

In SAP Marketing several composite roles are provided that give you access to the SAP Marketing applications. These composite roles include all single roles that are necessary to run the corresponding solution.

The following table lists the available composite roles by business roles:

Business Role	Composite Role Name	Description
Marketing Experts	SAP_MARKETING_EXPERT	General access to SAP Marketing
	SAP_MARKETING_SEGMENTATION	Access to applications belonging to *Segmentation*
	SAP_MARKETING_CAMPAIGNS	Access to applications belonging to *Acquisition*
	SAP_MARKETING_SPEND_MGMT_PROG	Access to applications belonging to *Planning*
	SAP_MARKETING_RECOMMEND_EXPERT	Access to applications belonging to *Recommendations*
	SAP_MARKETING_INSIGHT	Access to applications belonging to *Insight*
	SAP_MARKETING_DATA_MANAGEMENT	Access to applications belonging to *Data Management*
Marketing Managers	SAP_MARKETING_MANAGER	General access to SAP Marketing
	SAP_MARKETING_PLANNING	Access to *Planning*
Marketing Executives	SAP_MARKETING_EXECUT_DASHBOARD	General Access to SAP Marketing
Business Analysts	SAP_MARKETING_RECOMMENDATION	Access to applications belonging to *Recommendations*
Administrator - Marketing	SAP_MARKETING_BUS_ADMIN_USER	Access to applications for key user and administrative tasks

Installation / Upgrade Team Members	SAP_MARKETING_TECHNICAL_CONF	Contains all roles needed to run the technical configuration tasks of the installation and upgrade process
User Administrator - Marketing	SAP_MARKETING_USER_ADMIN	Access for user administrators
Sales Representative	SAP_SALES_REP_MKT_INFO	Access to applications for sales representatives
Analytics Specialist	SAP_MARKETING_ANA_SPECIALIST	Access to applications for analytics specialists

To initially generate an authorization profile in your AS ABAP system and assign it to a user, you have to copy the required composite role including the single roles (depending on your purchased SAP Marketing solutions) and configure the copies of all roles according to your requirements.

1. Log on to your AS ABAP system and go to transaction PFCG.
2. For example, if you purchased the *Segmentation* price list component, enter SAP_MARKETING_SEGMENTATION in the *Role* field and choose the *Copy* pushbutton.
   A dialog box appears.
3. Enter a self-defined name for your role and choose the *Copy all* pushbutton.
4. In the following dialog box, choose the *Yes* pushbutton to copy the related single roles and assign them to the composite role.
5. In the following dialog box, select all single roles. Enter suitable names for each role in the *New Role* column.
6. Back on the *Role Maintenance* screen, choose the *Change* pushbutton.
7. Choose the *Roles* tab, and access the first new role by double-clicking it.
8. Choose the *Authorizations* tab, switch to *Edit* mode, and choose the *Propose Profile Name* pushbutton in the *Information About Authorization Profile* section.
   The system enters a profile name and a profile text.
9. Choose the *Change Authorization Data* pushbutton in the *Edit Authorization Data and Generate Profiles* section.
10. On the *Change Role: Authorizations* screen, maintain authorizations to suit your requirements.
11. To generate the authorization profile, choose the *Generate* menu option from the *Authorizations* menu or choose the *Generate* pushbutton.
12. Repeat step 7 to 11 for all new roles in your composite role.

> **i Note**
>
> If you create a copy of another composite role (as you purchased more than one SAP Marketing solution), be aware that some of the included single roles may already have been copied.

> **i Note**
>
> These steps do not apply to roles for which a profile cannot be generated because they do not contain any authorization data, for example, business catalog roles such as SAP_CEI_KUA_FLP.

13. All required authorizations roles are described in section Roles and Authorizations of the Security Guide for SAP Marketing on the SAP Help Portal at:
    https://help.sap.com/mkt-op ▶ *Security* ▶
14. Assign your copied composite role to the users in transaction `SU01`.

> **i** Note
>
> If you purchase additional licenses, you need to adapt your roles accordingly.

7.12 Generating the URL for Displaying the User Interface

> **⚠** Caution
>
> All previous steps have to be completed successfully before you can start with this step.

You create a start URL and distribute it to all potential end users as follows: `https://<fully qualified domain name of your SAP Web Dispatcher>:<HTTPS Port of SAP Web Dispatcher>/sap/bc/ui5_ui5/ui2/ushell/shells/abap/FioriLaunchpad.html?sap-client=<Client>#Shell-home`

From the AS ABAP system, you can launch the user interface using transaction `START_CEI`.

Logout Screen for the SAP Fiori Launchpad

By default, the SAP Marketing front-end system redirects you to a standard page, when you log out of the system.

If you want your users who log out of the system to be redirected to another page such as the SAP Fiori default log in page, follow the instructions described in section Configure a Sign-Out Screen for the SAP Fiori Launchpad (Optional) of the ABAP platform documentation on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *UI Technologies* ▶ *SAP Fiori Launchpad* ▶ *Administration Guide* ▶ *Configuring the Launchpad* ▶ *Configuring Sign-Out (Logout)* ▶

Configuring the Launchpad in Customizing

If you want to adapt the launchpad configuration, for example, to prevent business users from changing the application by creating an own personalization or from showing or hiding business groups, you can do so by setting parameters in Customizing on the front-end server. For more information, see section Setting Parameters in SAP Fiori Customizing of the ABAP platform documentation on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *UI Technologies* ▶ *SAP Fiori Launchpad* ▶ *Administration Guide* ▶ *Configuring the Launchpad* ▶

For general information about about the levels of the launchpad, see section Configuring the Launchpad of the ABAP platform documentation on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *UI Technologies* ▶ *SAP Fiori Launchpad* ▶ *Administration Guide* ▶

8 General Configuration Settings in SAP Marketing

8.1 Setting up Integration with SAP Jam

You have the option to integrate various parts of SAP Marketing with the collaboration platform SAP Jam. The integration with SAP Jam is available for the following licenses and applications:

- **Data Management** (*Sentiment Engagement*):
  You can use SAP Jam as a data source for *Sentiment Engagement*, which allows you to filter, analyze, and process posts from SAP Jam. In addition, you can create SAP Jam groups directly from the *Sentiment Engagement* user interface.
- **Acquisition:**
  - *Campaign Management*:
    You can store campaign-related information in corresponding SAP Jam groups to support online communication such as discussions with other sales people about your campaign.
  - *Campaign Management (Paid Search)*:
    You can share paid search campaign data with an existing group on SAP Jam to collaborate with other marketing experts. The post on SAP Jam will include a link to the specific paid search campaign you are sharing and the external marketing campaign associated with it.
- **Planning** (*Budget Plans*):
  You can share planning data with an existing group on SAP Jam to collaborate with other marketing managers. The post on SAP Jam will include a link to the *Budget Plans* application.
- In addition, you must set up the integration with SAP Jam if you want to use the share function which is available in some SAP Fiori applications. This function allows the user to send posts to the feed of any SAP Jam group.

To set up the integration with SAP Jam, you need to carry out the following steps:

- Set up the connection with SAP Jam:
  - For a description of how to connect SAP Jam with AS ABAP systems, see section Configuration of the ABAP platform documentation on the SAP Help Portal at:
    https://help.sap.com/mkt-op ▶ *SAP S/4HANA Foundation 1909* ▶ *ABAP Platform* ▶ *UI Technologies* ▶ *Social Media Integration* ▶ *Information for Administrators* ▶
  - You find the relevant steps in the SAP NetWeaver implementation guide (IMG) (transaction `SPRO`) under ▶ *SAP NetWeaver* ▶ *UI Technologies* ▶ *SAP Jam Integration* ▶.
- Carry out the customizing steps specified under SAP Marketing: ▶ *General Settings* ▶ *Integration* ▶ *Define Settings for Integration of SAP Jam* ▶.
- In addition, for the use in *Sentiment Engagement*, you have to carry out the Customizing steps specified under SAP Marketing: ▶ *Contacts and Profiles* ▶ *Sentiment Engagement* ▶.

> **i Note**
>
> You can only access the *Collaboration* menu path if you have activated the business function `BC_SRV_STW_03` (*Enable Social Media ABAP Integration 3*) in customizing under *Activate Business Functions* > *ENTERPRISE_BUSINESS_FUNCTIONS*.

8.2 Configuring Manager-Related Tasks

The following functions and apps are available to managers:

- Workflow for the marketing approval process with the the apps *Marketing Approvals* and *Manage Workflows*

8.2.1 Configuring Workflow

The following manager-related applications improve the approval process for marketing campaigns by a workflow-based approach:

- *Marketing Approvals*
- *Manage Workflows*

Both applications are located in the *Marketing Manager - Quick Launch* business group.

Marketing Approvals

To set up the *Marketing Approvals* application, you need to carry out the following steps:

Enable Workflow

To ensure the workflow is enabled, go to transaction `SWU3` in your SAP Marketing system and execute the automatic workflow Customizing. To do so, follow the instructions in section Automatic Workflow Customizing of the ABAP platform documentation on the SAP Help Portal at:

https://help.sap.com/mkt-op > *SAP S/4HANA Foundation 1909* > *ABAP Platform* > *Application Server ABAP - Infrastructure* > *Other Services* > *Services for Application Developers* > *SAP Business Workflow* > *SAP Business Workflow: Reference Documentation* > *Workflow System Administration*

Activate Workflows in Customizing

In Customizing for SAP Marketing under *General Settings* > *Activate Workflow for Business Objects*, choose the business object for which you want to activate workflows, and select the *Active* checkbox.

Assign Users to Roles

To enable marketing managers to use the *Marketing Approvals* application, you need to assign your copies of the following PFCG roles to the corresponding AS ABAP users:

- `SAP_CEI_PLG_FLP` (business catalog role, no copy is required, you can assign the delivered standard role)
- `SAP_CEI_MKT_APPROVAL` (back-end role; included in composite role `SAP_MARKETING_MANAGER`)
- `SAP_CEI_HOME` (for personalization purposes)

In addition, you must follow the instructions in SAP Note 2568271, which is intended for SAP S/4HANA but also applies for SAP Marketing. Once you have completed SAP Note 2568271, you assign a copy of the back-end role `SAP_CEI_MKT_BATCH_APPROVAL` to the workflow batch user `SAP_WFRT` to execute the user decision in the *Marketing Approvals* app.

Deactivate Task Filter

To be able to see approval requests in the *Marketing Approvals* app, in the *Enable Task Filter* activity in Customizing for *SAP NetWeaver* under *SAP Gateway Service Enablement* > *Content* > *Workflow Settings*, the task filter must always be deactivated.

Email Configuration

SAPconnect is required for sending notifications for workflow. For more information about configuring SAPconnect, see sections SAPconnect (BC-SRV-COM) and Quick Guide to SMTP Configuration of the ABAP platform documentation on the SAP Help Portal at:

https://help.sap.com/mkt-op *SAP S/4HANA Foundation 1909* > *ABAP Platform* > *Application Server ABAP - Infrastructure* > *Other Services* > *Services for Business Users* > *SAPconnect (BC-SRV-COM)*

Notification Configuration

Notification channel configuration is required for receiving notifications in the SAP Fiori launchpad. For more information, see section Notification Channel Configuration of the ABAP platform documentation on the SAP Help Portal at

https://help.sap.com/mkt-op *SAP S/4HANA Foundation 1909* > *ABAP Platform* > *Developing on the ABAP Platform* > *Development Concepts and Tools* > *SAP Gateway Foundation (SAP_GWFND)* > *Notification Channel*

Language Handling

To display marketing approval requests in a language other than English, you must carry out the corresponding Customizing settings described in SAP Note 2732277.

Manage Workflows

To enable marketing managers to use *Manage Workflows*, assign your copies of the following PFCG roles to the corresponding AS ABAP users.

- `SAP_CEI_PLG_FLP` (business catalog role; no copy required - you can assign the delivered standard role)
- `SAP_CEI_WORKFLOW_EDITOR` (back-end role; included in composite role `SAP_MARKETING_MANAGER`)

- `SAP_CEI_HOME` (for personalization purposes)

9 Configuring Data Management

This section is relevant for all SAP Marketing applications.

With *SAP Marketing Data Management*, you can analyze contact data from various sources (such as SAP ERP, SAP CRM as well as external data sources such as social media) in order to gain a deeper insight into your contacts' sentiments and interests. Based on this information, you can create contact target groups and identify follow-up actions.

9.1 Sentiment Engagement (Optional)

Sentiment Engagement allows you to filter, analyze, and process data that has been harvested from external data sources such as social networks.

> **i** Note
>
> The use of information originating from social networks and other data sources must be checked in the individual case against the background of all applicable laws and regulations (e.g. on data protection) and individual rules (e.g. for the relevant data source). SAP does not accept any liability for the use of the application by its customers.

Since the setup requirements for collecting external data will always vary greatly depending between individual customers and countries, data harvesting is not part of the *SAP Marketing Data Management* application.

9.1.1 Setting up Data Harvesting

Prerequisites

In order to set up Sentiment Engagement, you need to carry out the steps below.

Ensure that the following Customizing entries have been made under *Contacts and Profiles* in SAP Marketing:

- *Interaction Contacts* > *Define Settings for Social Media Integration*
  Enter the social media channel codes that you want to use in the *Sentiment Engagement* application (for example, **FB**).
- *Interactions* > *Define Communication Media*
  Enter the communication media that you need (for example, **FB**).

  > **i** Note
  >
  > Every communication medium that you want to use in the *Sentiment Engagement* application must correspond to a social media channel code.

- *Interactions* > *Define Interaction Types*
  Select the *Text Anlys* checkbox for all interaction types that you want to use in the *Sentiment Engagement* application.
- *Interactions* > *Assign Interaction Types and Communication Media to Channels*
  Assign the communication media that you have created to the interaction types that are selected for the text analysis.

Importing Social Posts

You first have to import the data that you want to analyze to your SAP Marketing system. Social posts are imported as interactions of interaction type `SOCIAL_POSTING`. In addition, social posts of any other interaction type are displayed in Sentiment Engagement if the text analysis is selected in Customizing for these interaction types (see the corresponding Customizing setting above).

The import is realized using one of the following data upload interfaces:

- OData service `CUAN_IMPORT_SRV`
- RFC function module `CUAN_CE_INTERACTIONS_POST` or `CUAN_CE_INTERACTIONS_POST_FLAT`
- Web service `CUANPOSTINTERACTIONS`

The regular background job `CUAN_IA_TA_EXTR_DELTA` that is scheduled during technical configuration ensures that the imported interactions are updated by sentiments and tags according to the results of *SAP HANA Text Analysis*.

For more information about the import of interactions, search for *Interactions* in the table of integration services in section Integration APIs of the Integration Guide on the SAP Help Portal at:

https://help.sap.com/mkt-op > *Integration*

9.1.2 Setting up SMTP for Post Groups (Send Email to Me)

As a prerequisite for the usage of the post group action *Send Email to Me* (see the corresponding Customizing path below), you must set up the SMTP configuration for SAPconnect. To do so, proceed as follows:

1. Make the configuration settings for email exchange between your AS ABAP system and any SMTP (Simple Mail Transfer Protocol) mail server. For more information, see section Quick Guide to SMTP Configuration of the ABAP platform documentation on the SAP Help Portal at:
   https://help.sap.com/mkt-op > *SAP S/4HANA Foundation 1909* > *ABAP Platform* > *Application Server ABAP - Infrastructure* > *Other Services* > *Services for Business Users* > *SAPconnect (BC-SRV-COM)*
2. Make the required settings in Customizing for SAP Marketing under *Contacts and Profiles* > *Sentiment Engagement* > *Create Action ID for Post Groups*. The `EMAIL2ME` (*Send Email to Me*) action must be active.

9.2 Scoring

Scores are calculated KPIs that help your end users to make assumptions about the future actions and decisions of an account, a contact, consumer, or prospect. Scores are displayed in a separate facet of the fact sheets on the user interface and can be used within *Segmentation*.

9.2.1 Scoring Including SAP Predictive Analytics

SAP Predictive Analytics allows for an automated training of predictive models, which reduces the effort of the business analyst, and provides best results.

To enable the usage of *SAP Predictive Analytics* as an implementation method, an installation of *SAP Automated Predictive Library (APL)* on SAP HANA is required. The integration setup of *SAP Predictive Analytics* with SAP Marketing is not part of the SAP Marketing delivery.

If you have installed SAP HANA SPS09 or higher, you can use the *APL* for an easier and more convenient setup installation.

For details on how to install the APL, see the SAP HANA Automated Predictive Library Reference Guide on the SAP Help Portal at:

https://help.sap.com/viewer/p/apl ▶ *Development* ▶.

9.2.2 Scoring Based on SAP HANA Rules Framework (HRF)

You have the option of integrating the SAP HANA rules framework (HRF) to help manage your heuristic scoring models. With this feature, your business analysts can create heuristic scoring models by defining the score calculation directly on the user interface in the *Score Builder* app using an intuitive rules expression language.

A prerequisite for using this option is an installed and configured HRF. If you did not install and configure HRF before, follow the instructions in section Scenario "HANA Rules Framework" [page 48].

> **i** Note
>
> The *HANA Rules Framework* will be deprecated in one of the future releases.

9.2.3 Predictive Model Training Based on [nu]-Support Vector Machine (R)

If you want to use [nu]-Support Vector Machine (R) for the training of a predictive model, you need to integrate R with the SAP HANA database. For more information about how to enable the embedding of R code in the SAP HANA database, see the SAP HANA R Integration Guide on the SAP Help Portal at:

https://help.sap.com/hana_platform **Select the required version in the "Version" field** ▶ *Reference* ▶ *View All* ▶ *SAP HANA R Integration Guide* ▶

9.3 Web Shop Personalization Based on Customer Segments

You can integrate SAP Marketing with release 5.3 or higher of SAP Commerce, to personalize your Web shop based on customer segments. You do this by defining tactical customer segments in *Segmentation*, which leads to a personalized shopping experience in SAP Commerce.

The Web shop designer who works in the SAP Commerce design environment calls up a list of campaigns resulting from the customer segments defined in *Segmentation*. The designer implements the personalization for the Web shop, which can range from layout and featured products to promotional pricing, for example.

This feature is enabled via the OData service `CUAN_COMMON_SRV`: The SAP Commerce content management system (*WCMS Cockpit*) calls the SAP Marketing system during design time via this service to search for customer segments and, therefore, campaigns that are available for assignment to customer segment rules.

During runtime, that is when a user logs on to the SAP Commerce platform, the SAP Commerce system calls the SAP Marketing system via the OData service to establish which campaign and, therefore, to which customer segment the login user is assigned. With this information the corresponding customer segment rules as defined in *WCMS Cockpit* are derived and the web shop is personalized accordingly.

In order to use the appropriate level of authorization when accessing information in SAP Marketing from the SAP Commerce system, we recommend that you carry out the following steps:

1. Copy the single role `SAP_CEI_ECOMMERCE_INTEGRATION` using transaction `PFCG`.
2. Assign the new copied role to the technical user specified for accessing SAP Marketing from the SAP Commerce system.

The integration setup of the SAP Commerce system with SAP Marketing is not part of the SAP Marketing delivery. You can implement the setup on a project basis.

For more information, see the SAP Commerce documentation at:

https://wiki.hybris.com/display/release5/SAP+hybris+Marketing+Integration (for integration with release 5.x of SAP Commerce)

https://help.hybris.com/6.7.0/hcd/8c48fea886691014a66bb78985584870.html (for integration with release 6.7 of SAP Commerce)

9.4 Customer Journey Insight

Customer Journey Insight allows you to view customer journeys. A journey is a sequence of events performed by a customer over time through various media, such as social, Web and phone, for example, clicked ads, opened emails, and confirmed Web searches. Marketing managers can explore journeys that lead to a certain event performed by a customer, such as a buy, an abandoned shopping cart, or a conversion.

You can view customer journey data, such as all customers taking the same journey, the number of times a specific journey is taken, and the top journeys by percentage. You can filter customer journeys based on date range, touchpoints, top journey percentage, events, interaction types, target group, and granularity.

In addition, you are provided with the option to create target groups of identified contacts for further processing in campaigns or promotion activities.

9.4.1 Setting up Customer Journey Insight

Before you start with the configuration for *Customer Journey Insight*, ensure that you have carried out the steps described in the following section:

- Initial Setup of SAP Fiori [page 57]

To set up *Customer Journey Insight*, carry out the following steps:

1. Carry out the Customizing steps specified under SAP Marketing under ▶ *Contacts and Profiles* ◀. Ensure that you make all the required settings for interaction contacts, origins of contact ID, communication media, interaction types, interaction channels, and that you assign the interaction types and communication media to channels. Specifically, these need to be done in the following customizing steps:
   - ▶ *Contacts and Profiles* ▶ *Interaction Contacts* ▶ *Define Origins of Contact ID* ◀
   - ▶ *Contacts and Profiles* ▶ *Interactions* ▶ *Define Communication Media* ◀
   - ▶ *Contacts and Profiles* ▶ *Interactions* ▶ *Define Interaction Types* ◀
   - ▶ *Contacts and Profiles* ▶ *Interactions* ▶ *Define Interaction Channels* ◀
   - ▶ *Contacts and Profiles* ▶ *Interactions* ▶ *Assign Interaction Types and Communication Media to Channels* ◀
2. Define interaction interests on the user interface, in the *Interaction Interests* application within the *Business Administration* business group.
3. Upload the necessary data including interactions and interaction contacts. Ensure that there are some interaction contacts and interactions available in your system, otherwise the chart will be empty.
4. Define events on the user interface, in the *Customer Journey Events* application within the *Business Administration* business group (see Setting up Customer Journey Events [page 73]).
   Enter the events and assign the interactions you want to use to these events. Save your entries.
5. To enable users to use *Customer Journey Insight*, assign your copies of the following `PFCG` roles to AS ABAP users:
   - `SAP_CEI_SCI_FLP` (business catalog role)
   - `SAP_CEI_TG_INI` (for creating, filtering and viewing target groups; included in composite role `SAP_MARKETING_DATA_MANAGEMENT`)

- SAP_CEI_CJI (for accessing *Customer Journey Insight*; included in composite role SAP_MARKETING_DATA_MANAGEMENT)
- SAP_CEI_CJI_EVENTS (for accessing *Customer Journey Events*; included in composite role SAP_MARKETING_BUS_ADMIN_USER)
- SAP_CEI_HOME (for personalization purposes)

9.4.2 Setting up Customer Journey Events

Customer Journey Events, located in the *Business Administration* business group, allows business administrators to define events for customer journeys. An event can be any outcome of a customer journey, such as a buy, an abandoned shopping cart, or a conversion.

To enable business administrators to use *Customer Journey Events*, assign your copies of the following PFCG roles to the corresponding AS ABAP users:

- SAP_CEI_KUA_FLP (business catalog role)
- SAP_MARKETING_BUS_ADMIN_USER (for accessing all applications for key user and administrative activities)
- SAP_CEI_CJI_EVENTS (for accessing *Customer Journey Events*; included in composite role SAP_MARKETING_BUS_ADMIN_USER)

> **i Note**
>
> Ensure that the OData service CUAN_ODATA_CJI_SRV is added to your copy of role SAP_CEI_CJI_EVENTS. For a description of how to add an OData service manually, see section *Adding an OData Service to a Role* in chapter New OData Services in Single Roles of the Upgrade Guide for SAP Marketing on the SAP Help Portal at:
>
> https://help.sap.com/mkt-op ▶ *Installation and Upgrade* ▶ *Upgrade Guide* ▶ *General Adapations in SAP Marketing* ▶ *Adaptations of Roles and Authorizations* ▶

- SAP_CEI_HOME (for personalization purposes)

9.5 Setting up Applications for Data Import

The following applications are available in the *Import Data* business group and allow you to import data for analytic purposes in the *Marketing Executive Dashboard*:

- *Import Data for Analytics* allows you to upload KPI data records.
- *Brands* allows you to add and edit brands, as well as to import brand data from a comma-separated value (CSV) file.
- *Competitors* allows you to import competitor data such as the competitor's market share via CSV upload.
- *Audiences* allows you to import audience data such as a group or a segment of customers via CSV upload.

Assign Users to Roles

To enable administrators in marketing to upload analytic data, you have to assign their AS ABAP users to your copy of the following roles:

For *Import Data for Analytics*:

- `SAP_CEI_KUA_FLP` (business catalog role; no copy required - you can assign the delivered standard role)
- `SAP_CEI_IMPORT_ANALYTICS` (back-end role; included in composite role `SAP_MARKETING_BUS_ADMIN_USER`)
- `SAP_CEI_HOME` (for personalization purposes)

For *Brands*:

- `SAP_CEI_KUA_FLP` (business catalog role; no copy required - you can assign the delivered standard role)
- `SAP_CEI_BRANDS` (back-end role; included in composite role `SAP_MARKETING_BUS_ADMIN_USER`)
- `SAP_CEI_HOME` (for personalization purposes)

For *Competitors*:

- `SAP_CEI_KUA_FLP` (business catalog role; no copy required - you can assign the delivered standard role)
- `SAP_CEI_COMPETITORS` (back-end role; included in composite role `SAP_MARKETING_BUS_ADMIN_USER`)
- `SAP_CEI_HOME` (for personalization purposes)

For *Audiences*:

- `SAP_CEI_KUA_FLP` (business catalog role; no copy required - you can assign the delivered standard role)
- `SAP_CEI_AUDIENCES` (back-end role; included in composite role `SAP_MARKETING_BUS_ADMIN_USER`)
- `SAP_CEI_HOME` (for personalization purposes)

9.6 Setting up Application "Business User"

The application *Business User* in the *Business Administration* business group allows marketing user administrators to create business users in the SAP Marketing system, for example, business users in the context of the *Marketing Executive Dashboard* (see Setup for SAP Marketing Business Users [page 81]). The user administrator can only use this app, if his or her user is assigned to your copy of the following roles:

- `SAP_CEI_USER_HANDLING` (back-end role; included in composite role `SAP_MARKETING_USER_ADMIN`)
- `SAP_CEI_HOME` (for personalization purposes)

9.7 Setting up Application "Digital Accounts"

With the *Digital Accounts* application in the *Marketing Data* business group, marketing experts can view and analyze the followers of social media accounts of their companies.

> **i Note**
>
> Currently, the only social network supported by *Digital Accounts* is WeChat, a social network mainly used in China. For the use of *Digital Accounts*, you must also apply the settings described in section Configuring WeChat Integration [page 167].

Customizing Activities and Business Add-Ins

The Customizing activities and BAdIs for the *Digital Accounts* app are located in Customizing for SAP Marketing under *Contacts and Profiles* > *Digital Accounts*.

- **Customizing Activity "Define Digital Account Types"**
  You decide what types of digital accounts can be configured in *Digital Accounts*.
- **Business Add-In "Acquiring Access Token"**
  Due to business requirements, you may have multiple servers that receive various types of messages from the same digital account. If you allow each server to request the access token that is required for calling APIs for the digital account, trouble will arise due to conflicting access tokens.
  Instead, you should use one of them as a primary server, which is responsible for getting and storing the access token. If the server that you have configured for the integration of the digital account and SAP Marketing is not the primary server, then you need to implement this BAdI to get the access token from the primary server.

Assign PFCG Role to Users

To set up the *Digital Accounts* application, assign your copy of the following role to the AS ABAP users of your marketing experts in transaction `PFCG` of your SAP Marketing back-end system:

- `SAP_CEI_DIGITAL_ACCOUNTS` (back-end role; included in composite role `SAP_MARKETING_EXPERT`)

9.8 Marketing Locations

Marketing Locations allows you to maintain information about marketing locations. You can store information such as location name, location address, coordinates, phone number, web address, email and location picture. You can also upload location data using the *Import Data* application in the *Import Data* business group.

Access to Map Provider

You can also view marketing locations on a map. As a prerequisite, the user's browser needs access to the internet domain *here.com*, which provides the map data. Note that only locations with a valid latitude and longitude are shown on the map.

Consider the implications of communicating with servers outside your firewall.

For more information, see the Security Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Security* ▶

9.8.1 Setting up Marketing Locations

To set up *Marketing Locations*, make the settings in the following activities in Customizing for SAP Marketing under ▶ *Contacts and Profiles* ▶ *Marketing Locations* ▶:

- *Define Origins of Marketing Location ID*
- *Define Marketing Location Types*

To enable users for *Marketing Locations*, assign your copies of the following PFCG roles to the corresponding AS ABAP users:

- `SAP_CEI_SCI_FLP` (business catalog role)
- `SAP_CEI_MARKETING_LOCATION` (for accessing *Marketing Locations*; included in composite role `SAP_MARKETING_DATA_MANAGEMENT`)

Uploading Marketing Location Data

To add marketing locations to SAP Marketing, you must import marketing location data from a comma-separated value (CSV) file using the *Import Data* application in the *Import Data* business group.

For more information about importing marketing locations, see section Import Data (CSV) in the application help for SAP Marketing on SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Application Help* ▶ *SAP Marketing* ▶ *SAP Marketing Applications* ▶

To access the *Import Data* application, the user must be assigned a copy of the `SAP_MARKETING_BUS_ADMIN_USER` role.

For more information, see the Security Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Security* ▶

9.9 Google Analytics Integration (Optional)

The integration with Google Analytics allows you to do the following:

- Enrich sales order interactions of type `SALES_ORDER` with Google Analytics data.
  You can enrich a sales order interaction with its source campaign and device category information. For more information, see the report *Interactions: Enrich Sales Orders with Google Analytics Data* (`CUAN_GA_ENRICH_IA`).

- Create interactions with Web Tracking data from Google Analytics.
  You create query configurations that identify the set of web hits data that you want to retrieve from Google Analytics. You define mapping values that identify how to map the data retrieved from Google to the interaction data in SAP Marketing. For more information, see Creating Query Configurations for Google Analytics.
- Create interactions with Web Tracking data from Google BigQuery.
  You create query configurations that identify the set of web hits data that you want to retrieve from Google BigQuery. You use standard SQL statements to map data retrieved from Google BigQuery to the interaction data in SAP Marketing. For more information, see Creating Query Configurations for Google BigQuery.

> **i** Note
>
> You can set up one or more of the scenarios, depending on your needs.

Configuration Settings

For a complete description of the configuration settings required for the integration scenario, see the corresponding integration guide, Integrating SAP Marketing with Google Analytics via SAP Cloud Platform Integration.

Integration Package

For more information about the *Google Analytics Integration with SAP Marketing Cloud/SAP Marketing* integration package, see https://api.sap.com/shell/discover/contentpackage/SAPHybrisMarketingGoogleAnalyticsIntegration.

9.10 Marketing Agencies

Marketing Agencies allows you to maintain information about agencies, that are dedicated to creating, planning, and handling advertising and other forms of marketing activities for its clients. You can store information such as agency name, agency address, phone number, Web address, email address, and agency picture.

Additionally, you can do the following:

- **Assign marketing areas**
  You can assign marketing areas to a marketing agency to identify which marketing areas are relevant for the marketing agency.
- **View campaigns**
  You can view and navigate to campaigns from a marketing area, when the agency has been added to the campaign in the *Collaboration* tab.

9.10.1 Setting up Marketing Agencies

To authorize users for *Marketing Agencies*, assign your copies of the following `PFCG` role to the corresponding AS ABAP users:

- `SAP_CEI_BCR_AGC_OP` (for accessing *Marketing Agencies*; included in composite role `SAP_MARKETING_SPEND_MGMT_PROG`)

9.11 Setting Up the Use of Agreements

The API OData Service *Agreements* (`API_MKT_AGREEMENT_SRV`) allows you to load customer agreements (including terms) into SAP Marketing. An agreement can be any kind of customer contract that comprises specific services. This API includes the option to update agreements from different source systems.

For more information about how to use the API, see section Agreements in the Integration Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Integration* ▶ *Integration Guide* ▶

Prerequisites

As a prerequisite to use the API OData Service *Agreements*, you must execute the following activities in Customizing for SAP Marketing (transaction `SPRO`) under ▶ *SAP Marketing* ▶ *Contacts and Profiles* ▶ *Agreements* ▶:

- In **Define Agreement Origin**, you can define various originating systems for an agreement. The origin of an agreement is the operative system where an agreement is originally maintained.
- In **Define Agreement Type**, you can define different types of agreements, which can be used to segment customers holding agreements.
- In **Define Agreement Payment Frequency**, you can define names and IDs for various payment frequencies, in order to see how often the customer makes a payment.
- In **Define Agreement Cancellation Reason**, you can define reasons for the cancellation of an agreement.
- In **Define Agreement Cancellation Condition**, you can define and name the cancellation condition of an agreement.

Additional Options

- You can use the attributes of agreements as filter elements in the *Segmentation Modelling* app in *Segmentation* business group. As a prerequisite, these agreement attributes must be made visible in the

Segmentation Configuration app in the *Segmentation and Campaign Configuration* business group. To do so, proceed as follows:

1. In the *Segmentation Configuration* app, choose the *Segmentation Objects and Attributes* tile.
2. To use the agreement attributes as filters for **contacts** in *Segmentation Modelling*, select segmentation object *Contacts (SCI 11SP8)* (`SAP_CONTACT_ENGAGEMENT_11SP8`).
3. In the *Assigned Data Sources* section, select *SAP_CONTACT_INTERACTIONS* in the *Data Source Alias* column, and choose *Edit*.
4. In the next view on the *Attributes* tab, choose *Edit*.
5. Select the *Visible as Attribute* checkbox for all those attributes that have the entries *Agreement* or *Agreement Terms* in the *Group* column.

   > **i Note**
   >
   > To ensure that you cover all available agreement attributes, you can enter **`Agreement`** in the *Search* field.

6. Save your entries.
7. To use the agreement attributes as filters for **consumers** in *Segmentation Modelling*, repeat steps 3 to 6 for segmentation object *Consumers (SCI 11SP8)* (`SAP_CONTACT_EGM_CONSUMER_11SP8`). The data source alias *SAP_CONTACT_INTERACTIONS* remains the same.
8. If you use own customer segmentation objects with the assigned data source *SAP_CONTACT_INTERACTIONS*, repeat steps 3 to 6 for these segmentation objects if you want to use the agreement attributes as filters in *Segmentation Modelling*.

- In the SAP Marketing back-end system, you are provided with a status report (`CUAN_AGR_UPDATE_CURRENT_STATUS`) that allows you to update the current status of an agreement (see transaction `SA38`). The current status is dependent on the agreement status that comes from the originating system and on the agreement term that is valid at the current time. The report should be running on a regular basis. SAP recommends to schedule the report to run it as a periodic background job. For more information, see the documentation attached to the report.

10 Configuring Insight

The settings described in this section are only relevant if you want to run *SAP Marketing Insight*.

10.1 Configuring SAP Analytics Cloud

The following applications within SAP Marketing are based on *SAP Analytics Cloud*:

Marketing Executive Dashboard

This application is available for marketing executives in the *Marketing Executive* business group.

The *Marketing Executive Dashboard* contains key performance indicators (KPI), which allow marketing executives to review the success of marketing investments, and gain an overview of KPI attainment and marketing performance benchmarks.

You are provided with a range of KPIs for the *Marketing Executive Dashboard*. For an overview of the available KPIs, see Marketing Executive Dashboard and subsequent chapters.

> **i** Note
>
> - The KPIs are delivered as templates. You might need to adjust them to better meet your business requirements.
> - The KPIs, and the descriptions of the measures and dimensions are only available in English.

Lead Dashboard

This application is available for marketing experts in the *Lead Management* business group.

The *Lead Dashboard* app allows marketing experts to review the success of the lead management process, and provides them with a comprehensive overview of Key Performance Indicator (KPI) attainment and lead management performance benchmarks.

> **i** Note
>
> As a prerequisite for the use of the *Marketing Executive Dashboard* as well as the *Lead Dashboard*, you must integrate *SAP Analytics Cloud*. For a description of the integration, see section Integration with SAP Analytics Cloud (1SO) in the Integration Guide for SAP Marketing on the SAP Help Portal at:
>
> https://help.sap.com/mkt-op ▶ *Integration* ▶ *Integration Guide* ▶

10.1.1 Setup for SAP Marketing Business Users

To create marketing users for SAP Marketing, you are provided with the application *Business User* (see Setting up Application "Business User" [page 74]). To create marketing users that are allowed to access the *Marketing Executive Dashboard* or the *Lead Dashboard*, proceed as follows:

1. For the *Marketing Executive Dashboard*, copy the composite role `SAP_MARKETING_EXECUT_DASHBOARD` and its single roles to customer roles.
2. For the *Lead Dashboard*, copy one of the following composite roles and the included single roles to customer roles:
   - `SAP_MARKETING_INSIGHT`
   - `SAP_MARKETING_EXPERT`
3. Create a user for SAP Marketing *Business User*, and assign your copy of role `SAP_CEI_USER_HANDLING`.

> **i Note**
>
> You can also create marketing users for SAP Marketing using transaction `SU01` in the SAP Marketing AS ABAP system.

10.1.2 Creation of SAP Marketing Business Users

To create a business user within SAP Marketing, follow these steps:

1. Open SAP Marketing through the following URL: `https://<webdispatcher_host>:<webdispatcher_port/sap/bc/ui5_ui5/ui2/ushell/shells/abap/FioriLaunchpad.html?sap-client=<Client>#Shell-home`.
2. Log on with the user for SAP Marketing *Business User Administration* from section Setup for SAP Marketing Business Users [page 81].
3. Open the *Business User Administration* application and create SAP Marketing business users. Assign your copy of composite role `SAP_MARKETING_EXECUT_DASHBOARD` or `SAP_MARKETING_INSIGHT`, respectively (see section Setup for SAP Marketing Business Users [page 81]).
4. When the SAP Marketing business users open SAP Marketing, they find the dashboard as follows:
   - The *Marketing Executive Dashboard* within business group *Marketing - Executive Dashboard*
   - The *Lead Dashboard* within business group *Lead Management*

10.2 SAP CRM Business Transactions and SAP Marketing Interactions

If you use SAP CRM as a source system, you can create activities directly in the SAP CRM source system from your SAP Marketing system. In addition, you can create interactions in SAP Marketing from replicated CRM business transactions that you already have in SAP Marketing.

To create CRM business transactions from SAP Marketing, you use the enhancement spot `CUAN_CRM_CREATE_1O` (*Trigger Creation of CRM Activity*) to implement the BAdI

`CUAN_CRM_CREATE_ONEORDER_ACT` (*Create Business Transactions*). This BAdI includes a standard implementation.

If you want to enhance the standard implementation, create your own implementation on the basis of the standard. In addition, consider SAP Note 1784897.

To create interactions in SAP Marketing from existing CRM business transactions, you use the report `CUAN_IA_EXTR_FROM_CRM` and the transaction *Full Extraction of CRM Data as Interactions* (`CUAN_CRM_IA_UPD`).

For more information, see the document Integrating SAP Marketing with SAP CRM.

11 Configuring Segmentation

The settings described in this section are only relevant if you want to run *SAP Marketing Segmentation*.

11.1 Dialog Work Processes

To achieve optimal performance, *SAP Marketing Segmentation* parallelizes requests in the ABAP application server as well as in the SAP HANA database. Therefore you must configure a suitable number of dialog work processes. The number of dialog work processes depends on the number of frequent *SAP Marketing Segmentation* users. A frequent user works, for example, every day for several hours in the system. The minimum number of processes that the application requires is 25.

To configure the number of dialog work processes, follow the description in SAP Note 39412.

→ Recommendation

SAP recommends the following number of dialog work processes per number of frequent users:

Frequent Users	≤ 10	25	50	75
Dialog Work Processes	25	30	65	90

11.2 Geospatial Segmentation (Optional)

This function allows viewing the distribution of geolocations on a map (for example, the distribution of customers in a region) and creating new segments based on areas defined on a map (radius or polygon).

If you want to use this function with any segmentation profile, you need to ensure that your attribute universe provides the necessary geolocation information. For details, see section Setting up the Geospatial Segmentation and Map Preview of the Extensibility Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Development* ▶

Access to Map Provider

To use geospatial segmentation, you need both map visualization and geocoding services.

Access to Map Provider with Default Configuration

SAP ships a default configuration, which uses *here.com* for map visualization and geocoding. You can use this default configuration if it fits your legal and functional requirements.

> **i** Note
>
> SAP only provides the interfaces and configuration options which allow you to connect the map visualization and geocoding services. The usage of here.com is not part of your end-user license agreement with SAP. It is your responsibility to check and/or adapt the default configuration.

If you keep the default configuration, you need to check the following:

Map Visualization

The user's browser will need access to the internet domain *here.com*. The domain provides the map data that is used in the geospatial segmentation option. Check, whether the users in question have access to this domain and consider the implications of communicating with servers outside your firewall.

For more information, see section Communication Destinations of the Security Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Security* ▶ *Security Guide* ▶ *Network and Communication Security* ▶

Access to Map Provider with Custom Configuration

You can change the configuration using *SAP Visual Business*. For more information, see the corresponding documentation on the SAP Help Portal at:

https://help.sap.com/viewer/p/SAP_VISUAL_BUSINESS_2.1

To change the default configuration, go to *Customizing Mode* by selecting ▶ *Personalization* ▶ *Start Customizing Mode* ▶ on the segmentation UI.

In the *Console* view, enter the following:

- `sap.hpa.gseg.gen.Config(function (c) {c. setGeoService ("sap.hpa.gseg.gen.VbService");c.saveAllBagAttrValues();})` to change the configuration for the geocoding service
- `sap.hpa.gseg.gen.Config(function (c) {c.setGeoMap("sap.hpa.gseg.controls.VbMap");c.saveAllBagAttrValues();})` to change the configuration for the map visualization

You can now change the configuration for the geocoding service in Customizing for *Visual Business* (transaction `SPRO`): ▶ *SAP NetWeaver* ▶ *UI Technologies* ▶ *SAP Visual Business* ▶ *Maintain Application Definitions* ▶. The relevant application name is `GSEG_GEOSPATIAL`.

In case you want to go back to the default configuration, enter the following in the *Console* view:

- `sap.hpa.gseg.gen.Config(function (c) {c.setGeoService("sap.hpa.gseg.gen.NokiaService");c.saveAllBagAttrValues();})` for geocoding services
- `sap.hpa.gseg.gen.Config(function (c) {c.setGeoMap("sap.hpa.gseg.controls.NokiaMap");c.saveAllBagAttrValues();})` for map visualization.

11.3 Geospatial Segmentation with Baidu Maps

You are provided with the option to integrate Baidu Maps into Segmentation to segment contacts in China by geographic location in a visualized way.

For a detailed description of this integration, see section Integration with Baidu Maps for Geospatial Segmentation of the Integration Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Integration* ▶

12 Configuring Recommendation

The settings described in this section are only relevant if you want to run *SAP Marketing Recommendation*.

With *SAP Marketing Recommendation* you can build different product recommendation model types from various sources (such as *SAP ERP*, *SAP Marketing Data Management*, as well as external data sources such as social media) in order to provide a recommendation. This recommendation can be consumed by various applications such as a web shop or an interaction contact.

In addition, *Recommendation* includes the Offer Management applications *Manage Offers*, and *Manage Coupons*.

For more information about performance and load balance, see SAP Note 2264072.

> **i Note**
>
> As a prerequisite for the use of the *Recommendation* applications, you must have executed the technical configuration scenario *Recommendation* (see section Scenario "Recommendation" [page 56]).

12.1 Post-Installation Steps

12.1.1 Adapting Customer Channels for New Integration Scenarios

Customer channels for which SAP does not provide an integration scenario must be adapted to consume recommendations models using one of the following:

- Remote Function Call (RFC)
- OData service

For more information, see section Recommendation of the Extensibility Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Development* ▶ *Extensibility Guide* ▶ *SAP Marketing Recommendation* ▶

12.1.2 Configuring Offer Management and Coupons

Offer Management provides you with the following applications:

- The app *Manage Offers* allows you to create, release, and put offers on hold. During creation, you define a validity period and define the offer content.
  In addition, you can use an interface to generate offers from external systems.

While the actual offer content is prepared in *Manage Offers*, marketing experts can create and manage models, and maintain offer recommendation scenarios in the *Manage Recommendations* app. For more information, see the Manage Recommendations in the application help for SAP Marketing on the SAP Help Portal.

- The app *Manage Coupons* allows you to create and release coupons. The coupon itself can be used within the app *Manage Offers*.

> **i Note**
>
> Before you start configuring Offer Management, ensure that you have carried out the steps described in section Initial Setup of SAP Fiori [page 57].

12.1.2.1 Setting up Application "Manage Offers"

To set up the *Manage Offers* application, assign your copy of the following role to the AS ABAP users of your marketing managers or experts:

- `SAP_CEI_OFFER_APP` (back-end role; included in composite role `SAP_MARKETING_RECOMMEND_EXPERT`)

> **i Note**
>
> The standard role `SAP_CEI_OFFER_APP` includes an authorization check at instance level for marketing areas. The marketing areas are defined in Customizing for SAP Marketing under *Planning* > *General Settings* > *Define Marketing Areas*. If a user assigned to a copy of `SAP_CEI_OFFER_APP` tries to access an object instance for a particular marketing area, the system checks whether they are allowed to access that area.

In addition, you have to assign your copies of the following roles to the AS ABAP users of your marketing experts:

- `SAP_CEI_ROF_FLP` (business catalog role; no copy required - you can assign the delivered standard role)
- `SAP_CEI_HOME` (for personalization purposes)

Enabling the OData API for E-Commerce Integration

To display suitable offers to customers, the public OData API `CUAN_OFFER_DISCOVERY_SRV` can be used to make offers available in an e-commerce scenario, for example in the SAP Commerce Web shop.

For more information about the OData API, see section Discover Offers of the Integration Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op *Integration* > *Integration Guide* > *Integration Services*

To enable the OData API for e-commerce integration, you need to assign the technical AS ABAP user that is used to communicate between the e-commerce suite, such as SAP Commerce, and the SAP Marketing back-end system to the following role:

- SAP_CEI_OFFER_PUBLIC_API

Enabling the OData API for Offer Import

You are provided with the public OData API CUAN_OFFER_IMPORT_SRV to import offers from any third-party system to your SAP Marketing system. To enable the OData API for offer import, you need to assign the technical AS ABAP user that is used to communicate between the legacy system and the SAP Marketing back-end system to the following role:

- SAP_CEI_OFFER_IMPORT_API

For more information about the public OData API CUAN_OFFER_IMPORT_SRV, see section Import Offers of the Integration Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op *Integration* > *Integration Guide* > *Integration Services*

12.1.2.2 Setting up Application "Manage Coupons"

The *Manage Coupons* app controls a single code and manages relations between the coupon code and contacts during business processes.

To set up the *Manage Coupons* app, assign your copies of the following roles to the AS ABAP users of your marketing experts:

- SAP_CEI_COUPONS (back-end role; included in composite role SAP_MARKETING_RECOMMEND_EXPERT)
- SAP_CEI_ROF_FLP (business catalog role; no copy required - you can assign the delivered standard rolee)

Enabling the OData API for Interactions of Type OFFER_REDEMPTION

You are provided with the public OData API CUAN_IMPORT_SRV to import interactions from any third-party system to your SAP Marketing system. To enable the OData API for interaction import, you need to assign the technical AS ABAP user that is used to communicate between the legacy system and the SAP Marketing back-end system to the following role:

- SAP_CEI_ECOMMERCE_INTEGRATION (back-end role including all required authorizations to call external services. You can copy and adapt this role according to your requirements.)

For more information about role SAP_CEI_ECOMMERCE_INTEGRATION, see section Roles and Authorizations in the Security Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op *Security*

For more information about the OData API `CUAN_IMPORT_SRV`, see section Compound Import Service in the Integration Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Integration* ▶

13 Configuring Planning

The settings described in this section are only relevant if you want to run *SAP Marketing Planning*.

The following apps belong to *SAP Marketing Planning*:

- With the *Budget Plans* app, marketing managers can plan budgets, programs, and spends.
- With spend management (which is the *Spend* tab of a campaign in the *Campaigns* application), marketing experts can plan campaigns and spends in a simple and intuitive way.
- With the *Programs* app, marketing managers can view programs and the corresponding campaigns that are assigned to the programs, and assign and remove campaigns to programs.
- With the *Marketing Plans* app, marketing managers and marketing experts can group marketing objects, such as programs and campaigns, into marketing plans for a marketing area and calendar year.
- With the *Marketing Calendar* app, marketing managers and marketing experts can have a complete overview of ongoing and planned marketing activities.

Required Customizing Settings

In the following, you find the required Customizing settings that for you have to carry out for the use of the planning applications. The settings are listed per app.

Application for Which Settings Apply	Settings
Budget Plans	If custom dimensions are going to be used for budget planning, define them in Customizing for SAP Marketing under *Planning* > *Budget Planning* > *Define Custom Dimensions*.
Budget Plans	If you defined custom dimensions, add or import custom dimension values in the system from a comma-separated value (CSV) file in the *Custom Dimension Values* application. For more information, see Custom Dimension Values.
Budget Plans	If brand is going to be used as a dimension for budget planning, add or import brands in the system from a CSV file in the *Brands* application. For more information, see Brands.

Application for Which Settings Apply	Settings
Budget Plans	If country is going to be used as a dimension for budget planning, define countries in Customizing for *SAP NetWeaver* under *General settings* > *Set Countries*.
Budget Plans	If region is going to be used as a dimension for budget planning, assign regions to countries in Customizing for *SAP NetWeaver* under *General settings* > *Set Countries* > *Insert Regions*.
Budget Plans	If market is going to be used as a dimension for budget planning, make the required settings in Customizing for SAP Marketing under *Planning* > *General Settings* > *Define Markets*.
Budget Plans	If audience is going to be used as a dimension for budget planning, you have defined audiences in the *Audiences* application. For more information, see Audiences.

Application for Which Settings Apply	Settings
Budget Plans *Programs* *Campaigns*	If planning is going to be done for different media types, make the required settings in Customizing for SAP Marketing under *General Settings* > *Define Media Types*. In the Customizing activity, you can also define icons for media types. If you want to use images for media types, you can define them in the *Manage Images* application. For more information, see the extensibility guide on SAP Help Portal at http://help.sap.com/mkt-op *Development*. If a budget plan uses a planning model for which media type is enabled, and no images or icons are defined for the media types, the media type descriptions are shown in the axis of the chart. If only an image is defined for a media type, the image is shown in the axis of the chart. If only an icon is defined for a media type, the icon is shown in the axis of the chart. If both an image and an icon are defined for a media type, only the image is shown in the axis of the chart. **i Note** It is not mandatory to use media type for campaigns. However, if budget is planned for different media types, it is mandatory that all campaigns that are assigned to programs and are funded by that budget have media type assigned. Otherwise, if such campaigns have actual spend data, the actual spend cannot be shown in budget planning. We recommend that you create a media type, such as other or miscellaneous, and assign it to campaigns so that actual spend data for this media type can be shown in budget planning.

Application for Which Settings Apply	Settings
Budget Plans *Programs* *Marketing Plans*	Make the required settings in Customizing for SAP Marketing under ▶ *Planning* > *General Settings* > *Define Marketing Areas*.
Budget Plans	To define planning models that are going to be used for budget planning, make the required settings in Customizing for SAP Marketing under ▶ *Planning* > *Budget Planning* > *Define Planning Models*.
Budget Plans	If you want to restrict the values that can be used for budget plans in budget planning, create dimension relationships and select the values of the dimensions that can be used in the *Dimension Relationships* application. For more information, see Dimension Relationships.
Budget Plans	To set up user authorization for budget planning, do the following: 1. Make the required settings in Customizing for SAP Marketing under ▶ *Planning* > *Budget Planning* > *Define Areas of Responsibility*. 2. Assign marketing areas and areas of responsibility to roles and then assign users to the roles using the *Role Maintenance* (`PFCG`) transaction.
Budget Plans *Programs* *Marketing Plans* *Quick Campaign Spend* *Detailed Campaign Spend*	To define the default currency that is going to be used for planning, make the required settings in Customizing for SAP Marketing under ▶ *Planning* > *General Settings* > *Set Currency*.

Application for Which Settings Apply	Settings
Budget Plans *Programs* *Marketing Plans* *Quick Campaign Spend* *Detailed Campaign Spend*	To set up all the currencies that you are going to use for planning and their exchange rates, make the required settings in Customizing for SAP NetWeaver ▶ *General Settings* ▶ *Currencies*.
Budget Plans *Programs* *Marketing Plans* *Quick Campaign Spend* *Detailed Campaign Spend*	If you defined custom dimensions or if you want to change the labels for the standard dimensions or measures, make the required settings in Customizing for SAP Marketing under ▶ *Planning* ▶ *General Settings* ▶ *Define Labels for Dimensions and Measures*.
Budget Plans *Programs* *Marketing Plans* *Detailed Campaign Spend*	To define the actual spend data you want to display in planning, make the required settings in Customizing for SAP Marketing under ▶ *Planning* ▶ *General Settings* ▶ *Define Settings for Actual Spend and Ad Serving Cost*.
Quick Campaign Spend *Detailed Campaign Spend*	Define spend types in Customizing for SAP Marketing under ▶ *Planning* ▶ *Spend Management* ▶ *Define Spend Types*.
Marketing Plans *Programs* *Campaigns*	To activate workflow for marketing plans, programs, and campaigns, make the required settings in Customizing for SAP Marketing under ▶ *General Settings* ▶ *Activate Workflow for Business Objects*.
Marketing Plans	If you want to change the labels for the statuses for marketing plans, make the required settings in Customizing for SAP Marketing under ▶ *Planning* ▶ *General Settings* ▶ *Define Labels for Statuses in Marketing Plans*.

Application for Which Settings Apply	Settings
Marketing Plans	If you want to change the labels for the status buttons for marketing plans, make the required settings in Customizing for SAP Marketing under *Planning* > *General Settings* > *Define Labels for Status Buttons in Marketing Plans*.
Programs	If you want to change the labels for the statuses for programs, make the required settings in Customizing for SAP Marketing under *Planning* > *General Settings* > *Define Labels for Statuses in Programs*.
Programs	If you want to change the labels for the status buttons for programs, make the required settings in Customizing for SAP Marketing under *Planning* > *General Settings* > *Define Labels for Status Buttons in Programs*.
Programs *Marketing Plans*	If you want to have a log with the changes made by users to business objects, make the required settings in Customizing for SAP Marketing under *General Settings* > *Activate Change Log for Business Objects*.
Marketing Plans	If you want to be able to create snapshots for marketing plans, make the required settings in Customizing for SAP Marketing under *General Settings* > *Activate Snapshots for Business Objects*.

> **i Note**
>
> *Marketing Calendar* does not yet support multiple currencies.
>
> When configuring currencies, note that *Budget Plans*, *Programs*, and the applications belonging to spend management only support rates of type M.

13.1 Setting up "Budget Plans"

> **i** Note
>
> Before you start with the configuration for *Budget Plans*, ensure that you have performed the steps described in the following section:
>
> - Initial Setup of SAP Fiori [page 57]

To allow marketing managers to plan a budget according to their organization's requirements, you configure how budget planning is performed by defining a planning model and setting up the authorization for budget planning in Customizing for SAP Marketing (see below). A planning model has a hierarchical structure that can have both standard and custom dimensions for which budget can be planned. Dimensions can be as follows:

- Standard dimensions:
  - Brand
  - Market
  - Country
  - Region
  - Audience
- Custom dimensions:
  Other dimensions for which marketing managers can plan budget. Custom dimensions are defined in Customizing for SAP Marketing (see subsection *Required Customizing Settings* of section Configuring Planning [page 90] (in the table, search for **`Budget Plans`**).

When you define a planning model, you assign a dimension to a level in the hierarchy. You must have at least two levels in your planning model. A budget is allocated to the dimension at the first level of the hierarchy. The marketing manager plans a budget for the dimensions at the other levels of the hierarchy.

For more information, see section Budget Planning in the application help for SAP Marketing on SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Application Help* ▶ *SAP Marketing* ▶ *SAP Marketing Applications* ▶ *Planning* ▶

Customizing Settings

For the Customizing settings to be carried out for running *Budget Plans*, see subsection *Required Customizing Settings* of section Configuring Planning [page 90] (in the table, search for **`Budget Plans`**).

Uploading Data for "Budget Plans"

If the planning model you have defined includes brand information, you need to upload brands in the system. You upload brand data from a comma-separated value (CSV) file using the *Import Data* application in the *Import Data* business group.

For more information, see section Import Data (CSV) in the application help for SAP Marketing on the SAP Help Portal.

To access the *Import Data* application, the user must be assigned a copy of the following role:

- `SAP_MARKETING_BUS_ADMIN_USER`

For more information, see the Security Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Security* ▶

If you want to use custom dimensions, you proceed as follows:

1. Define the custom dimensions in Customizing for SAP Marketing under ▶ *Planning* ▶ *Budget Planning* ▶ *Define Custom Dimensions* ▶. You can define a maximum of 10 custom dimensions. The technical object name for each dimension is `CUAN_CUSTOM_DIMENSION_`(SAP technical ID of custom dimension from 01 to 10). The mapping from the dimension ID and the technical ID is done automatically. For example, you have defined a custom dimension with the ID *MyDimension*. It will be mapped to the technical ID `CUAN_CUSTOM_DIMENSION_01`.
2. Assign the custom dimensions to the planning model dimensions in Customizing for SAP Marketing under ▶ *Planning* ▶ *Budget Planning* ▶ *Define Planning Model* ▶.
3. Upload the custom dimension values in the system from a CSV file using the *Import Data* application in the *Import Data* business group.

To access the *Import Data* application, the user must be assigned a copy of the following composite role:

- `SAP_MARKETING_BUS_ADMIN_USER`

For more information, see the Security Guide for SAP Marketing on the SAP Help Portal.

Setting up the Authorization for "Budget Plans"

Budget planning, programs, and marketing spend management use marketing areas for authorization. In addition, budget planning and programs use areas of responsibility. It is mandatory to set the marketing area and area of responsibility for each user. For more information, see Authorization Examples for Budget Planning, Programs, and Marketing Spend Management in the application help for SAP Marketing in the appplication help.

1. Define the marketing areas in Customizing for SAP Marketing under ▶ *General Settings* ▶ *Define Marketing Areas* ▶.
2. Define the areas of responsibility in Customizing for SAP Marketing under ▶ *Planning* ▶ *Budget Planning* ▶ *Define Areas of Responsibility* ▶.
   For more information, see section Areas of Responsibility *Areas of Resonsibility* in the application help.
3. Assign areas of responsibility to users in transaction `PFCG`.

4. The users must be assigned a copy of the `SAP_CEI_AMP` role with the following start authorization settings:

Authorization Object	Object Name (`HPA_OBJ`)	Activity (`ACTVT`)
`HPA_OBJECT`	`CUAN_BUDGET_PLANNING`	○ **02** (Change) ○ **03** (Display)

5. Assign instance authorization to users as follows:

Authorization Object	Object Name (`HPA_OBJ`)	Area of Responsibility ID (`RSPAREA_ID`)	Activity (`ACTVT`)
`HPA_RSP_AR`	`CUAN_BUDGET_PLANNING`	Area of responsibility ID as defined in Customizing for SAP Marketing under *Planning* > *Budget Planning* > *Define Areas of Responsibility*	**02** (Change)

For more information about the authorization object, see the Security Guide for SAP Marketing on the SAP Help Portal.

Setting Up the Map Visualization

The *Budget Plans* application does not come with a pre-configured map. To set up your map, follow the steps in the SCN blog on SAP Visual Business:

http://scn.sap.com/docs/DOC-59547

For more information, see the SAP Visual Business documentation on the SAP Help Portal at:

http://help.sap.com/visualbusiness21

13.2 Setting up "Marketing Plans"

The *Marketing Plans* application allows you as a marketing manager or marketing expert to group marketing objects, such as programs and campaigns, into marketing plans for a marketing area and calendar year. The application provides visibility on budget and spend for marketing activities.

To set up *Marketing Plans*, you must ensure that the corresponding delivered Customizing is copied from client 000 to the productive client of your SAP Marketing AS ABAP system. This copy should usually be executed during the post-installation, see section Initial Customizing Adjustment [page 28].

For the concrete Customizing settings to be carried out for *Marketing Plans*, see subsection *Required Customizing Settings* of section Configuring Planning [page 90] (in the table, search for **`Marketing Plans`**).

For general information, see section Marketing Plans in the application help for SAP Marketing on SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Application Help* ▶ *SAP Marketing* ▶ *SAP Marketing Applications* ▶ *Planning* ▶

13.3 Setting up "Programs"

Programs are containers for marketing activities. Marketing managers propose how much to be spent on marketing activities.

To set up *Programs*, you must ensure that the corresponding delivered Customizing is copied from client 000 to the productive client of your SAP Marketing AS ABAP system. This copy should usually be executed during the post-installation, see section Initial Customizing Adjustment [page 28].

For the concrete Customizing settings to be carried out for *Programs*, see subsection *Required Customizing Settings* of section Configuring Planning [page 90] (in the table, search for **`Programs`**).

For general information, see section Programs in the application help for SAP Marketing on SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Application Help* ▶ *SAP Marketing* ▶ *SAP Marketing Applications* ▶ *Planning* ▶

Setting Up the Authorization for Programs

A user can assign a funding source to a program from any plan based on the area of responsibility and marketing area to which the user is assigned.

1. The users must be assigned a copy of the `SAP_CEI_PROGRAM` role.
2. Assign the authorization for funding assignment as follows:

Authorization Object	Object Name (`HPA_OBJ`)	Area of Responsibility ID (`RSPAREA_ID`)	Activity (`ACTVT`)
`HPA_RSP_AR`	`CUAN_BUDGET_PLANNING`	Area of responsibility ID as defined in Customizing for *SAP Marketing* under ▶ *Planning* ▶ *Budget Planning* ▶ *Define Areas of Responsibility* ▶	○ **`03`** (Display)

For more information about the authorization object, see the Security Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Security* ▶

13.4 Setting up Spend Management

Before you start with the configuration of spend management (which is the *Spend* tab of a campaign in the *Campaigns* application), ensure that you have carried out steps described in section Initial Setup of SAP Fiori [page 57].

To set up spend management, you need to carry out the following steps:

Set up Spend Types

1. In Customizing, under SAP Marketing, go to *Planning* > *Spend Management* > *Define Spend Types*.
2. Enter the spend types you want to use.
3. Save and close the transaction.

Assign Users to Roles for Spend Management

To enable marketing managers/experts to use the *Spend* tab of a campaign in the *Campaigns* application, you need to assign your copies of the following `PFCG` roles to their AS ABAP users:

- One of the following business catalog roles (no copy required - you can assign the delivered standard role):
  - For managers: `SAP_CEI_PLG_FLP`
  - For experts: `SAP_CEI_SMP_FLP`
- For managers: `SAP_CEI_MSM_SM_APP` (back-end role; included in composite role `SAP_MARKETING_PLANNING`)
- For experts: `SAP_CEI_MSM_SM_APP` (backend role; included in composite role `SAP_MARKETING_SPEND_MGMT_PROG`)
- `SAP_CEI_HOME` (for personalization purposes)

Activate SAP ERP PS Integration for Cost Collection

- To enable cost tracking for marketing spends in SAP ERP, activate one of the BAdI implementations of the *BAdI: Outbound System Integration for Cost References* in Customizing under SAP Marketing: *Planning* > *Spend Management*.
- If you have activated multiple BAdI implementations, we recommend that you use filter options to distinguish between different campaign categories so that for one campaign category one implementation is processed. With this option, you can create project WBS elements in different systems and avoid to generate multiple projects and WBS elements for the same campaign.
  If you activated the BAdI implementation *Marketing Spends Actuals - Create Projects and WBS Elements (ES)*, which is based on Enterprise Services, you have also to establish a logical port. For more information, see also the documentation of the Customizing activity *BAdI: Outbound System Integration for Cost References*.

As a prerequisite you have maintained a logical port in the target SAP ERP system using the *SOA Manager*. In the transaction `SOAMANAGER` under *Service Administration* > *Web Service Configuration* you have configured the following services as SSL (https) connection and with the same service and binding name `CUAN_MSM_PROJECT`:

- `ProjectERPCreateRequestConfirmation_In_V1` (internal name `ECC_PROJECTERPCRTRC1`)
- `ProjectERPByIDQueryResponse_In_V1` (internal Name `ECC_PROJECTERPIDQR1`)
- `ProjectERPUpdateRequestConfirmation_In` (internal name `ECC_PROJECTUPDRC`)

As a next step run task list `CUAN_MSM_SETUP_PS_INTEGRATION` as follows:

1. Log on to your SAP Marketing AS ABAP system with the application setup user. For more information, see User for Application Setup [page 36].
2. Go to transaction `STC01`.
3. Execute task list `CUAN_MSM_SETUP_PS_INTEGRATION`.

Assign Marketing Area to Project Profile

1. In Customizing, under SAP Marketing, go to *Planning* > *Spend Management* > *Assign Marketing Area to Project Profile*. (Defined in SAP ERP Customizing under *Project System* > *Structures* > *Operative Structures* > *Work Breakdown Structure (WBS)* > *Create Project Profile*
2. Enter a *Project Profile ID* from SAP ERP PS to which you would like to assign a *Marketing Area*.
3. Select the *Project Profile ID* and select the *Folder* `Assign Marketing Area`
4. Choose *New Entries* to assign a new *Marketing Area*.

Maintain Project and WBS Element Prefix for SAP ERP

1. In Customizing, under SAP Marketing, go to *Planning* > *Spend Management* > *Maintain Project and WBS Element Prefix for ERP*.
2. Create a first entry and enter **`Prefix for ERP Project`** as well as **`WBS Prefix`**. (Defined in SAP ERP Customizing under *Project System* > *Structures* > *Operative Structures* > *Work Breakdown Structure (WBS)* > *Project Coding Mask* > *Define Project Coding Mask*. These prefixes must not have any masks assigned in SAP ERP.

Upload Actual and Committed Spend from External System

You can use one of the following ways to upload actual and committed spend:

- Using a report.
  Go to transaction `SE38` (*Program Execution*) and run program `CUAN_MSM_UPLOAD_ACTUAL`. You upload actual and committed spend from a file. For more information about the required file format, see the report documentation.

- Using the `CUAN_ACTUAL_IMPORT_SRV` OData service.
  For detailed information about how to use the OData service for the upload of actual spend, see section Actual and Committed Spend of the Integration Guide for SAP Marketing on the SAP Help Portal at:
  https://help.sap.com/mkt-op *Integration* > *Integration Guide* > *Integration Services*
- Using a CSV file in the *Import Data* application within the *Import Data* business group.
  To access the *Import Data* application, the user must be assigned a copy of the role `SAP_MARKETING_BUS_ADMIN_USER`.

The report, as well as the OData service, and the import using the CSV file, log either a success or an error message. The log is displayed once the report is executed. You can also find all log messages using the transaction *Analyze Application Log* (`SLG1`) transaction, entering the parameters `CUAN_IMPORT` as an object and `CUAN_ACTUAL_IMPORT` as a subobject.

13.5 Setting up "Marketing Calendar"

Marketing Calendar is an application that marketing managers and experts can use to see an overview of all marketing-related activities for which they are responsible during selected time ranges. The focus here is on aggregated KPIs and how they are influenced by marketing activities in the corresponding time context.

Marketing Calendar aggregates and displays data from different SAP Marketing applications. To use the full functionality (all charts in the *Marketing Calendar* app show data), the following solutions should be enabled:

- Segmentation
- Planning

In addition, you are provided with the *Subscribe to Campaign Calendar* function. This calendar service for subscription can be used with native calendar applications on devices that support the ICS format. The calendar events contain detailed information about the corresponding campaigns.

Before you start with the configuration *Marketing Calendar*, ensure that you have carried out steps described in section Initial Setup of SAP Fiori [page 57].

To set up the *Marketing Calendar* app, carry out the following steps:

1. To enable marketing managers/experts to use the *Marketing Calendar* app, you need to assign your copies of the following PFCG roles to their AS ABAP users:
   - One of the following business catalog roles (no copy required - you can assign the delivered standard role):
     - For managers: `SAP_CEI_PLG_FLP`
     - For experts: `SAP_CEI_SMP_FLP`
   - `SAP_CEI_MKT_CAL_APP` (back-end role; included in composite role `SAP_MARKETING_MANAGER` for managers and in composite role `SAP_MARKETING_SPEND_MGMT_PROG` for experts)
   - `SAP_CEI_HOME` (for personalization purposes)

   > **i Note**
   >
   > The standard role `SAP_CEI_MKT_CAL_APP` includes an authorization check at instance level for marketing areas. The marketing areas are defined in customizing under SAP Marketing under *Planning* > *General Settings* > *Define Marketing Areas*. If a user assigned to a copy of

> `SAP_CEI_MKT_CAL_APP` tries to access an object instance for a particular marketing area, the system checks whether they are allowed to access that area.

2. Configure your ABAP system to access the SAP Web Dispatcher as follows:
   1. Log on to your SAP Marketing system with the user for application setup.
   2. Call up transaction `SE16` and enter table `HTTPURLLOC`.
   3. Press *Create Entries*.
   4. Create an entry with the following parameters:
      - *SORT KEY:* `MCAL`
      - *PROTOCOL:* `HTTPS`
      - *APPLICATN:* `/SAP/CUAN/CUAN_MKTCAL_ICS`
      - *HOST:* Enter the fully qualified domain name of your SAP Web Dispatcher that matches the *Common Name* in your SSL certificate.
      - *PORT:* Enter the HTTPS port.
      - Save your entry.
   5. Create an entry with the following parameters:
      - *SORT KEY:* `NAVT`
      - *PROTOCOL:* `HTTPS`
      - *APPLICATN:* `/SAP/BC/UI5_UI5/SAP/CUAN_NAV_TO`
      - *HOST:* Enter the fully qualified domain name of your SAP Web Dispatcher that matches the *Common Name* in your SSL certificate.
      - *PORT:* Enter the HTTPS port.
      - Save your entry.
   6. Integrate the marketing calendar as an internet calendar into your calendar application (supporting the ICS format). For more information about this step, see the documentation of your calendar application.
      You can use the *Subscribe to Campaign Calendar* function to transfer campaigns to your calendar application. This works with all calendar applications (such as Microsoft Outlook) that support ICS format. If you select this function, a mail opens in your email program containing a link which you can copy and use once in your calendar application. The campaigns that are matching the filter criteria applied in the marketing calendar (before running the *Subscribe* function) are then transferred to your calendar application.
3. Configure SAP Visual Business by following the steps in the SAP Visual Business installation guide on the SAP Help Portal at:
   http://help.sap.com/visualbusiness21 ▶ *Installation and Upgrade* ▶ *Installation and Configuration Guide* ▶

> **i Note**
>
> There is also an SCN blog on the subject:
>
> http://scn.sap.com/docs/DOC-59547

14 Configuring Acquisition

The settings described in this section are only relevant if you want to run *SAP Marketing Acquisition*.

> **i** Note
>
> To install *Acquisition*, you must first install *Segmentation* (see Configuring Segmentation [page 83]).

A prerequisite for configuring *Acquisition* is the corresponding technical configuration. If you have not executed the technical configuration for *Acquisition* yet, follow the instructions in section Scenario "Campaign Management" [page 50].

14.1 Configuring Campaigns

The configuration of campaigns requires a few manual steps that are described in this section.

14.1.1 Prerequisites

Define Interaction Interests

If required, you have defined the necessary interests on the user interface in the *Manage Interests* application in the *Business Administration* business group.

Configuring the SAP Web Dispatcher

Mandatory Prerequisite for Open and Link Tracking in Email Campaigns

> **⚠** Caution
>
> To be able to run email campaigns, you mandatorily must configure a Web dispatcher. This Web dispatcher must run on a host that is accessible anonymously from the Internet. The Web dispatcher is responsible for routing HTTP requests corresponding to email opened and link click through events to the SAP Marketing backend.
>
> The following section describes details about the configuration of the SAP Web Dispatcher.

For the tracking services to run as required, define a routing rule for the tracking and bounce ICF services `/sap/public/cuan/link` and `/sap/public/cuan/bounce`. They need to be routed to the ABAP backend servers where the corresponding ICF services run.

For the tracking services to run as required, extend the SAP Web Dispatcher profile of your publicly accessible web dispatcher as follows:

1. Enter the port number to be used to access the SAP Web Dispatcher for the tracking services: `icm/server_port_<port_enum> = PROT=HTTPS,PORT=43<xx>, VCLIENT=0`
   - `<port_enum>` is used to enumerate the port number entries in the profile. It determines the order in which these entries are searched for. As soon as the first valid entry is found, the web dispatcher stops searching and uses that entry.
   - `<xx>` defines the last digits of the port number used.
2. Enter the system and URL of the backend system running the tracking services: `wdisp/system_<sys_enum> = SID=<SID>, EXTSRV=https://<hostname>:<port>, SRCSRV=*:<port_number>`
   - `<sys_enum>` is used to enumerate the system entries in the profile. It determines the order in which these entries are searched for. As soon as the first valid entry is found, the web dispatcher stops searching and uses that entry.
   - `<SID>` defines the ID of the SAP system that the services are running on.
   - `<host_name>` and `<port>` define the host name and port that must be used to access the tracking services.
   - `<port_number>` defines the complete port number defined above in the entry `icm/server_port_<port_enum>`

> ⚠ Caution
>
> For the tracking services it is essential that you disable the client verification at the SAP Web Dispatcher.
>
> - **Disabling client verification for all ports**
>   The following code line in the sample profile disables client verification for all ports: `icm/HTTPS/verify_client = 0`
> - **Disabling client verification for a specific port**
>   If certain application parts require client authentication, you can disable the client verification at port level. This is done by adding `VCLIENT=0` to the code line that specifies the SAP Web Dispatcher port in question.
>   In the sample profile, for example, you would have to make the following changes:
>   - Take out the following code line from section 'Start Web Dispatcher': `icm/HTTPS/verify_client = 0`
>   - Change the following code line in section 'SAP Web Dispatcher Ports' from: `icm/server_port_1 = PROT=HTTPS,HOST=mo-29b02f1eb,PORT=82$$` to: `icm/server_port_1 = PROT=HTTPS,HOST=mo-29b02f1eb,PORT=82$$, VCLIENT=0`

14.1.2 Setting Up Service Provider for Emails and Text Messages

In the following you will find information about how to conduct your system for SAP Marketing with the required service providers, such as SAP Digital Interconnect (formerly known as SAP Mobile Services), for sending out emails and text messages directly out of the system.

Read the following chapters to set up the connection with an email or text message provider.

> **i Note**
>
> A system of SAP Marketing enables you to design and organize marketing campaigns. But to reach your customers, you also need email and text message service provider who take over the data from the SAP system and finally send the text messages and emails.
>
> This service provider must be able to send **mass emails and text messages** for **marketing campaigns**, and should also collect bounces and unsubscribes. These providers are also called **marketing service providers (MSPs)**.
>
> Don't mix them up with your email and cell phone providers for normal communication.

when you create marketing campaigns for test purposes. With the entries you avoid to send test emails and test text messages to your customers.

Campaign Execution Blacklist [page 146]
With the *Campaign Execution Blacklist* app you can maintain full specified email addresses, email domains, and mobile phone numbers that shall be blacklisted for any reason within campaign actions *Send Email* or *Send Text Message*.

Handling Bounces [page 148]
Invalid contact data can result in soft and hard bounces. The system tracks the bounces and helps you with this information to optimize the reachability of your customers.

Bounces, Unsubscribes, and Complaints [page 152]
The SAP system collects records, such as bounces, unsubscribes and complaints, from the service provider using a background job. Find out more, how this influences the figures on the *Performance* tab of your campaign, as collecting bounces, unsubscribes, and complaints can take up to 20 Minutes.

Enabling Automatic Unsubscribe for Emails by Amazon [page 152]
When you want to use the unsubscribe offered by Amazon, you need to do settings at Amazon and at SAP.

Bounces and Unsubscribe for Text Messages [page 154]
When you want to use unsubscribe and bounces offered by SAP Digital Interconnect, you need a connection between your SAP system and SAP Digital Interconnect.

Enabling Complaints for Emails [page 156]
Complaints for email means that an email recipient classifies emails from dedicated senders as spam. For classifying emails as spam, the email recipient either drops the email to the spam folder of the email provider or declares the email as spam. This technology is also known as email feedback loops.

14.1.2.1 Service Provider and Available Features

The table gives you an overview about the features available for each service provider.

> **i** Note
>
> A system of SAP Marketing enables you to design and organize marketing campaigns. But to reach your customers, you also need email and text message service provider who take over the data from the SAP system and finally send the text messages and emails.
>
> This service provider must be able to send **mass emails and text messages** for **marketing campaigns**, and should also collect bounces and unsubscribes. These providers are also called **marketing service providers (MSPs)**.
>
> Don't mix them up with your email and cell phone providers for normal communication.

Feature	SAP Digital Interconnect	Amazon	Generic Interface	Alibaba
Documentation	Setting Up SAP Digital Interconnect [page 110]	Setting Up Amazon [page 130]	Setting Up a Generic Email and Text Message Interface [page 112]	Setting Up Alibaba Cloud DirectMail Service [page 135] and Setting Up Alibaba Cloud Short Message Service [page 138]
Sending Emails	Yes	Yes	Yes	Yes
Bounces for Emails	Yes	Yes	Yes	Yes
Complaints for Emails	Yes	Yes	Yes	Yes
Unsubscribe for Emails	Yes	Yes	Yes	No
Best Sending Time (for emails)	Yes	No	Yes (if supported by connected email service provider)	No
Sending Text Messages	Yes	No	Yes	Yes
Bounces for Text Messages	Yes	No	Yes	Yes
Unsubscribes for Text Messages	Yes	No	Yes	No

Related Information

Ways to Unsubscribe [page 108]

14.1.2.1.1 Ways to Unsubscribe

In the following, you learn about the possibilities to unsubscribe from emails and text messages.

Automatic Unsubscribe for Emails (List Unsubscribe)

To enable the automatic unsubscribe, you have created the required system connections for SAP Digital Interconnect and/or Amazon for unsubscribe.

For the setup, you must enter an *Email Address for Unsubscribing* in the *Sender Profiles* app and the system adds the unsubscribe information to the email header. Most email clients then show an unsubscribe button at the very top of the email.

> **i** Note
>
> For SAP Digital Interconnect, the email address is preset and can be changed.
>
> For Amazon, the email address must be added manually as the address is account-specific.

After the recipient has unsubscribed, the email client sends an email with the information back to the service provider. The SAP system collects the data from the service provider and maintains the marketing permissions (Opt-out) automatically.

In a newsletter campaign, the unsubscribe also contains the communication category. With the communication category and contact data, the unsubscribe from a newsletter can be realized and the system knows that this unsubscribe is one for a newsletter.

For more information, see:

- Opting-Out and Unsubscribing by Email
- Enabling Automatic Unsubscribe for Emails by Amazon [page 152]

Automatic Unsubscribe for Text Messages (STOP Trigger)

To enable the automatic unsubscribe for text messages, you have created the required system connections for SAP Digital Interconnect.

After the recipient has unsubscribed by sending back the word **`STOP`**, the SAP system collects the data from the service provider and maintains the marketing permissions (opt-out) automatically.

For more information, see Bounces and Unsubscribe for Text Messages [page 154].

Manual Unsubscribe for Emails

For the manual unsubscribe, you don't need any configuration, beside of adding an *Email Address for Unsubscribing* and/or a *Follow-Up Page for Unsubscribing* to the used sender profile in the *Sender Profiles* app.

Using the *Email Address for Unsubscribing* or the *Follow-Up Page for Unsubscribing* you can collect the required data and update your subscriptions and permissions (opt-out) manually in the *Contacts* app.

Easy Opting-Out and Easy Unsubscribe for Email

With this option, you add a link to the email body that triggers the unsubscribe.

The option is independent from any service provider.

For more information, see Opting-Out and Unsubscribing by Email.

Unsubscribe and Marketing Areas

The following explains in more detail how the system behaves, whether marketing areas are activated for campaign execution or not.

- **SAP Digital Interconnect: Unsubscribe from Text Messages Sending Back `STOP`**
  From text messages sent by SAP Digital Interconnect can be unsubscribed by sending back the word **`STOP`**, also when marketing areas are acitvated for campaign execution. The system uses the mobile number to determine the contacts.
  If the text message with the word **`STOP`** contains also a valid campaign ID, the marketing area of this campaign is used for the opt-out of the corresponding contact mobile number. For this scenario it is irrelevant whether the marketing areas are activated for campaign execution or not.
  Only for the case no campaign ID has been sent back with the STOP trigger:
  - If marketing area is not activated in the configuration, the system looks for all marketing areas that are assigned to sender profiles for sending text messages and creates an opt-out for **one** marketing area of the contact(s) related to the mobile number.
  - If marketing area is activated, the system looks for all marketing areas that are assigned to sender profiles for sending text messages and creates opt-outs **for each found** marketing area of the contact(s) related to the mobile number.
- **Email Unsubscribe by Amazon**
  Amazon provides an identification with which the outgoing email can be identified, and campaign, contact, and marketing area are determined.
  The system creates one opt-out (independent whether the separation is activated or not) with the data determined from the outgoing email.
- **Email Unsubscribe by SAP Digital Interconnect**
  SAP Digital Interconnect provides an identification with which the outgoing email can be identified, and campaign, contact, and marketing area are determined.
  The system creates one opt-out (independent whether the separation is activated or not) with the data determined from the outgoing email.

For more information, see the Customizing under *SAP Marketing* > *General Settings* > *Marketing Areas* > *Activate Marketing Areas for Campaign Execution*.

14.1.2.2 Setting Up SAP Digital Interconnect

With SAP Digital Interconnect as service provider, you send mass emails and text messages to your customers and inform them, for example, about your new developments. With this setup you are also enabled to get bounces and complaints for emails, and receive bounces and unsubscribes for text messages.

Context

As a preperation we recommend to read the following documents and recommendations to don't get listed as a spammer Deliverability Best Practices .

To be prepared for the onboarding for SAP Digital Interconnect as email provider, see SAP E-Mail 365 - Onboarding Guide (SAP Digital Interconnect direct customers) and fill out the form provided by SAP Digital Interconnect on this page: SAP E-Mail 365 – Provisioning Form .

> **i Note**
>
> For already existing customers: If you are changing something in the settings for your system connection after the upgrade from a lower release to release 1909 or higher, you must re-enter the following data:
>
> - Credentials

Procedure

Follow the steps below to get your service provider up and running:

1. Set up *SAP Digital Interconnect*:
   - You got *SAP Digital Interconnect* account for:
     - sending emails using http service call
     - sending text messages
     - receiving bounces and unsubscribes for text messages

     If you need more details or have questions on this solution, send an email to *SAP Digital Interconnect* mailto:sapdigitalinterconnect@sap.com.
   - To access the http service from *SAP Digital Interconnect*, you must populate the externally visible IP address of your server to *SAP Digital Interconnect* and you must know the ID, so that it can be added to the whitelist of allowed callers for your account. If you are using a proxy for sending, you must populate the external IP address of the proxy.
   - If you want to receive delivery feedback (text messages delivered to handset or delivery failed), you have to open a port in your firewall for inbound calls from the server of *SAP Digital Interconnect*. You have to provide an externally visible host name and port for this connection. This should already be set up during the system installation. For more information, see Prerequisites [page 104].
   - Check that you got a *User* and a *Password* as well as a *Host* and a *Path Prefix* from *SAP Digital Interconnect*.
2. Import SSL certificates for email and text messages from SAP Digital Interconnect using the transaction `STRUST`.
   1. Download SSL certificates from NEW SSL Certificate - For SAP Digital Interconnect Customers . Save the linked *.txt-file on your local machine.
   2. Import the certificates into the PSE using the transaction `SM59`.
   3. Set SSL to *Active* for RFC destinations `MSMAIL` and `SMSSAP`.
   4. Select the certificate list to which you uploaded the certificates.
   5. Test the `MSMAIL` and `SMSSAP` RFC destination. If you receive an HTTP response code `500` with a response body containing a JSON string, then the setup is correct.
3. Open the *Configuration of RFC Connections* (transaction code: **SM59**) and enter the credentials you got from SAP Digital Interconnect in the settings for `MSMAIL` on the *Logon & Security* tab under *Logon Procedure* > *Logon with User* > *Basic authentication* .
4. Then go to **Customzing** (transaction `SPRO`), choose *Define Provider Configuration* under *SAP Marketing* > *Campaigns* > *Campaign* , and create your required provider connection.

5. Finally maintain your sender profiles. For more information, see Sender Profiles [page 144].

Using Several Accounts

If you want to use several accounts, you must do the steps above for each account seperately. To get more information about the dependencies in the setup, see Using Several Accounts for one Service Provider [page 142].

14.1.2.3 Setting Up a Generic Email and Text Message Interface

With this generic email and text message interface, you can conduct any email or text message service provider to a system of SAP Marketing to send mass messages. With this setup, you're also enabled to get bounces.

SAP Marketing offers a generic interface that transfers the message header and body data in a JSON format.

The system calls

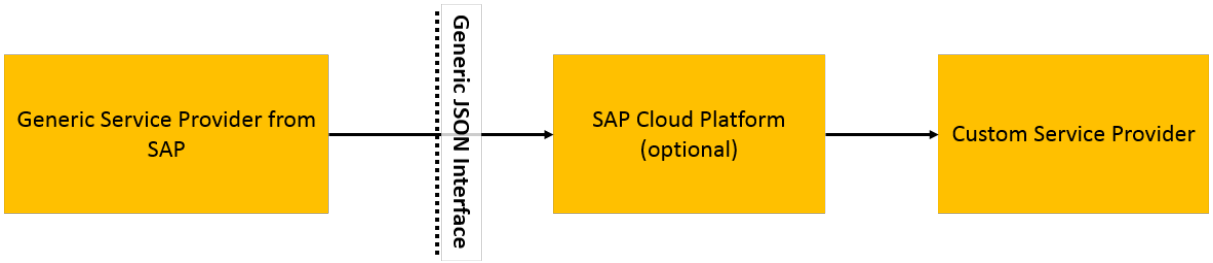
- either the service provider directly, if it supports the defined JSON interface natively,
- or an integration engine like SAP Cloud Platform to transform the message from SAP format into any kind of legacy formats. The integration engine is optional in this scenario even though it's the most likely use case.

> **i Note**
>
> A system of SAP Marketing enables you to design and organize marketing campaigns. But to reach your customers, you also need email and text message service provider who take over the data from the SAP system and finally send the text messages and emails.
>
> This service provider must be able to send **mass emails and text messages** for **marketing campaigns**, and should also collect bounces and unsubscribes. These providers are also called **marketing service providers (MSPs)**.
>
> Don't mix them up with your email and cell phone providers for normal communication.

You've prepared the following data:

- Connection data to connect SAP Marketing with SAP Cloud Platform:
  - hostname of SAP Cloud Platform
  - logon credentials such as user and password for the outbound communication to SAP Cloud Platform Instead of user and password, you can also work with certificates. You activate the certificates in the *Communication Systems* app during the setup.
- Connection data to connect SAP Cloud Platform with your service provider:
  - hostname of your service provider
  - logon credentials such as user and password

- **Optional:** Depended on the service provider, you must upload the provider's certificates to the SAP Cloud Platform. To upload the certificates on the platform, choose *Operations View* > *Manage Keystore* > *Add* > *Certificate* and upload the certificate.



Set Up

1. Open the *Configuration of RFC Connections* (transaction **SM59**) in your system and create your RFC destinations as follows:
   - For your destination, use *Type* **G**.
   - Enter the host URL and the path under *Technical Settings*.

   The generic adapter automatically adds the following parts:
   - To send email: `/send`
   - To get bounce: `/bounces`
   - To get complaints: `/complaints`
   - To get verified sender email addresses: `/verifiedSenders`
2. Create a provider configuration in Customizing under *SAP Marketing* > *Campaigns* > *Campaign* > *Define Provider Configuration*.
   Create a provider using the following details:
   - Assign a previously created RFC connection.
   - Use *Communication Medium* **EMAIL** and *Adapter* **CL_CUAN_MKT_EXEC_EMAIL_ADAPTER**.
3. Create a sender profile in Customizing under *SAP Marketing* > *Campaigns* > *Campaign* > *Define Sender Profile* and assign the created provider, as well as a valid marketing area.
   In addition, enter *Sender Address*, *Sender Name*, *Reply-To Address*, and *Reply-To Name*.

14.1.2.3.1 Generic Email and Text Message Integration

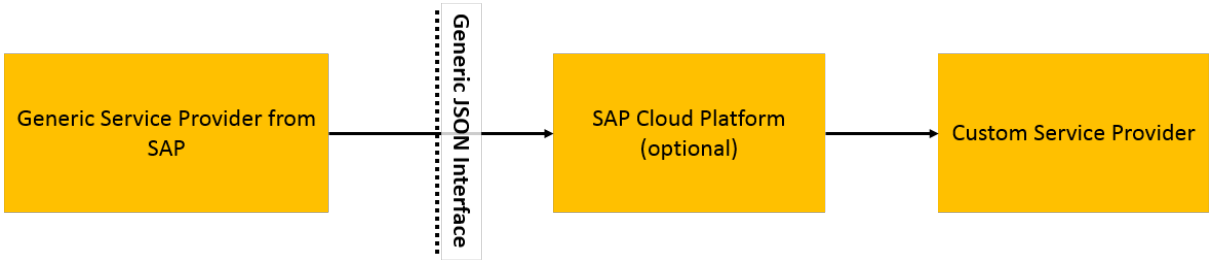
With this REST service and methods you integrate any email and text message service provider (SP) with a system of SAP Marketing. For email you use scenario ID **SAP_COM_0234** and for text message you use **SAP_COM_0258**.

Using the campaign automation, you can send emails or text messages to your customers.

The email bodies contain personalized content and trackable links. Countable interactions are, for example, email opened, link clicked, and email hard bounce. Emails are sent using a REST service to an email SP.

The text messages contain personalized content. Text messages are sent using a REST service API to an SP for text messages.

The integration is a pure outbound scenario. You require an account and license on the email or text message SP's side.



Methods for Email Integration

HTTP Method	Action	Path Enhancement (that must be the same in SAP Cloud Platform)
Send Emails *POST*	**Mandatory** method Email: Send Emails [page 115]	`/send`
Get Bounces *GET*	Email: Get Bounces [page 118]	`/bounces`
Get Complaints *GET*	Email: Get Complaints [page 120]	`/complaints`
Get Unsubscribes *GET*	Email: Get Unsubscribes [page 121]	`/unsubscribes`
Get Verified Senders *GET*	**Mandatory** method Email: Get Verified Senders [page 122]	`/verifiedSenders`

Methods for Text Message Integration

HTTP Method	Action	Path Enhancement (that must be the same in SAP Cloud Platform)
Send *POST*	Text Message: Send [page 123]	`/send`

HTTP Method	Action	Path Enhancement (that must be the same in SAP Cloud Platform)
Collect Delivery Status *GET*	Text Message: Collect Delivery Status [page 126]	`/status`
Get Unsubscribes *GET*	Text Message: Get Unsubscribes [page 128]	`/unsubscribes`

14.1.2.3.1.1 Email: Send Emails

With this method you send the emails to your email service provider (ESP).

> **i** Note
>
> This method is **mandatory** for the integration.

Request

URI: `/send`

HTTP Method: *POST*

Request Parameters

Parameter	Required	Data Type	Description
`bodyContentHTML`	Yes	String	Body Content. Format: HTML, JSON encoded
`bodyContentPlainText`	Yes	String	Body Content (for multipart or alternative email MIME). Format: Plain Text, JSON encoded
`campaignId`	No	String	*Campaign ID* of the campaign that generates this email. Can be empty for send tests in campaign content and sender profile. Helpful for support.
`listUnsubscribe`	No	String	Header for list unsubscribe in raw format. Possible entries: `mailto:<email address>`, `https::<URL>`

Parameter	Required	Data Type	Description
`outboundId`	No	String	Unique identifier of outbound message generated by SAP Marketing
`recipient`	Yes	String	Recipient (*To* field)
`recipientName`	No	String	Recipient name. Not yet supported. Format: Plain Text, JSON encoded
`replyTo`	Yes	String	Reply-To Address (*Reply-To* field)
`replyToName`	Yes	String	Reply-To Name. Format: Plain Text, JSON encoded
`sendAt`	No	String	Timestamp for scheduled sends. Format: `YYYYMMDDHHMMSS`
`sender`	Yes	String	Sender Address (*From* field)
`senderName`	Yes	String	Sender Name. Format: Plain Text, JSON encoded
`sourceSystem`	No	String	Logical System (Netweaver). Required to get corresponding bounces and complaints related to outbound messages.
`subjectContentPlainText`	Yes	String	Subject; Format: Plain Text, JSON encoded
`type`	No	String	Indicates for the middleware which integration flow for which type of ESP should be processed

Request Example

Sample Code

```
/send
HTTP method POST

Content-Type:
application/json
Encoding: UTF-8

Body:
{
    "type"                  : "email",
    "outboundId"            : "33fds34534r4",
    "campaignId"            : "123456789",
    "sourceSystem"          : "XYZCLNT100",
    "sendAt"                : "20170328080000",
    "sender"                : "john.miller@example.com",
    "senderName"            : "John Miller",
    "replyTo"               : "news@example.com",
    "replyToName"           : "SAP News",
```

```
    "recipient"                : "recipient@example.com",
    "recipientName"            : "Recipient",
    "listUnsubscribe"          : "<mailto:yyyy>, <http::zzz>"
    "subjectContentPlainText" : "Hello Recipient",
    "bodyContentHtml"          : "<b>Hello, this email body is HTML<b>",
    "bodyContentPlainText"     : "Hello, this email body is plain text"
}
```

Response

Response Parameters

Parameter	Required	Data Type	Description
`errorCategory`	No	String	Permanently appearing errors lead to a stop of the campaign execution. Retryable errors result in multiple retries to resolve the issue before the campaign stops. Throttling reduces the throughput that is generated by the backend. Possible values are `Retriable`, `Permanent`, or `Throttling`.
`errorText`	No	String	Error text is written to the log and shown to the end user. Format: Plain Text
`messageId`	Yes	String	Unique identifier for outbound message provided by ESP. Could be 'outboundId' if supported by ESP, but not necessarily.

> **Note**
>
> - The response refers only to the email sent using the connected service provider or SAP Cloud Platform. You can't get bounces, such as email address is not valid, with the response. For more information, see Email: Get Bounces [page 118].
> - Note that the success code must start with `2` followed by two digits, for example, `202`.

Response Example

Sample Code

```
Success Code 202

Content-Type:
application/json
{
    "messageId": "33fds34534r4"
}
```

Error Example

Sample Code

```
Error Codes 4xx, 5xx:
{
    "errorCategory"    : "Retriable"
    "errorText"        : "Sending messages failed and can be retried."
}
```

Sample Code

```
Error Codes 4xx, 5xx:
{
    "errorCategory"    : "Permanent"
    "errorText"        : "Messages cannot be sent."
}
```

Sample Code

```
Error Codes 4xx, 5xx:
{
    "errorCategory"    : "Throttling"
    "errorText"        : "Throughput for sending messages is too high. Sending
messages can be throttled."
}
```

14.1.2.3.1.2 Email: Get Bounces

With this method you request the bounces from your connected email service provider (ESP).

Request

URI: `/bounces`

HTTP Method: *GET*

Request Parameters

Parameter	Required	Data Type	Description
`sourceSystem`	No	String	Logical system that is required to get bounces and complaints related to outbound messages.
`startTimeUTC`	Yes	String	Timestamp to begin with query collected bounces on ESP side. Format: `YYYYMMDDHHMMSS`
`endTimeUTC`	Yes	String	Timestamp to end with query collected bounces on ESP side. Format: `YYYYMMDDHHMMSS`

Parameter	Required	Data Type	Description
page	No	Integer	Indicates the result page in case of multiple pages. Possible values are 0 to n

Request Example

```
/bounces
GET
sourceSystem=XYZCLNT100
startTimeUTC=20181115221500
endTimeUTC=20181115223000
Page=2
```

Response

Response Parameters

Parameter	Required	Data Type	Description
page	No	Integer	Indicates the result page in case of multiple pages. Possible values are 0 to n
lastPage	Yes	Boolean	Indicates the last page of the result.
bounces	Yes	JSON Array	Contains the bounce details.
messageId	No	String	Reference to outbound message, see sending interface.
recipient	Yes	String	The email address that bounced or created a complaint. Value: <email address>
type	Yes	String	Type of feedback, depending on bounce or complaint use case. Possible values are: Hard, Soft, abuse, fraud, virus, other, not-spam
timestamp	No	String	Timestamp when bounce occurred. Format: YYYYMMDDHHMMSS
errorCode	No	String	Error code for bounces. Possible entries are: DSN error code (X.Y.Z), SMTP error code (XYZ)
errorText	No	String	Error text for bounce message.

Response Example

```
{
    "page":"2",
    "lastPage":"false",
    "bounces": [
                {
                    "messageId"   : "12343243243413",
                    "recipient"   : "bounce@example.com",
                    "errorCode"   : "5.1.1.",
                    "errorText"   : "Address does not exist",
                    "Type"        : "Hard",
```

```
                    "Timestamp"    : "20181116093500"
                }
        ]
}
```

14.1.2.3.1.3 Email: Get Complaints

With this method you request the complaints from the connected email service provider (ESP).

For the parameter values please refer to Email: Get Bounces [page 118].

Request

URI: `/complaints`

HTTP Method: *GET*

Request Example

```
/complaints
GET
sourceSystem=XYZCLNT100
startTimeUTC=20180925211500
endTimeUTC=20180925213000
Page=2
```

Response

Response Example

```
{
    "page":"2",
    "lastPage":"false",
    "complaints": [
                {
                   "messageId"    : "12343243243413",
                   "recipient"    : "spam@example.com",

                   "Type"         : "abuse",
                   "Timestamp"    : "20180926093500"
                }
        ]
}
```

14.1.2.3.1.4 Email: Get Unsubscribes

With this method you request the unsubscribes from your connected email service provider (ESP).

Request

URI: `/unsubscribes`

HTTP Method: *GET*

Request Parameters

Parameter	Required	Data Type	Description
`sourceSystem`	No	String	Logical system that is required to get unsubscribes related to outbound messages.
`startTimeUTC`	No	String	Timestamp to begin with query collected unsubscribes on ESP side. Not required for bounce queue. Format: `YYYYMMDDHHMMSS`
`endTimeUTC`	No	String	Timestamp to end with query collected unsubscribes on ESP side. Not required for bounce queue. Format: `YYYYMMDDHHMMSS`
`page`	No	Integer	Indicates the result page in case of multiple pages. Possible values are `0` to `n`

Request Example

```
/unsubscribes
GET
sourceSystem=XYZCLNT100
startTimeUTC=20180815064512
endTimeUTC=20180815073422
Page=2
```

Response

Response Parameters

Parameter	Required	Data Type	Description
`page`	No	Integer	Indicates the result page in case of multiple pages. Possible values are `0` to `n`
`lastPage`	Yes	Boolean	Indicates the last page of the result.
`unsubscribes`	Yes	JSON Array	Contains the unsubscribe details.

Parameter	Required	Data Type	Description
`outboundId`	No	String	Reference to outbound message, see sending interface. Unique identifier of outbound message generated by SAP Marketing.
`messageId`	No	String	This is the ESP-specific message ID provided by the generic provider.
`recipient`	Yes	String	The email address that unsubscribed. Value: `<email address>`
`timestamp`	Yes	String	Timestamp when unsubscribe occurred. Format: `YYYYMMDDHHMMSS`

Response Example

```
{
    "page":"2",
    "lastPage":"false",
    "unsubscribes": [
                {
                   "messageId"   : "12343243243413",
                   "recipient"   : "unsubscribe@example.com"
        "timestamp"   : "20180817163255"
                }
        ]
}
```

In the SAP system, a multi-level approach is implemented and, for example, the `outboundId` is evaluated first.

But in case the `outboundId` is not provided and is, for example, initial, the `messageId` is evaluated.

And in case, the `messageId` is not provided, too, email address is evaluated (recipient).

> **i Note**
>
> Note: If one of the regarding values (`outboundId`, `messageId`) is not initial, the system takes the entries as valid.
>
> A fall back on other levels only happens when the previous level values are initial.

14.1.2.3.1.5 Email: Get Verified Senders

With this method you get the verified senders from your connected email service provider (ESP).

> **i Note**
>
> This method is **mandatory** for the integration.
>
> Only with this method implemented, you can:
>
> - maintain sender profiles
> - send test emails
> - send emails out of a campaign

→ Recommendation

We recommend to use your customer domain as `senderDomains` instead of `*`.

Request

URI: `/verifiedSenders`

HTTP Method: *GET*

Request Example

```
/verifiedSenders
GET
```

Response

Response Example

```
Response
{
    "senders"          :    [ "sender1@example.com", "sender2@example.com" ],
    "senderDomains"    :    [ "news.sap.com", "sap.com", "example.com" ]
}
```

14.1.2.3.1.6 Text Message: Send

With this method you send text messages to your connected text messaging service provider.

Request

URI: `/send`

HTTP Method: *POST*

Request Parameters

Parameter	Required	Data Type	Description
`type`	No	String	Indicates for the middleware which integration flow for which type of service provider should be processed; entry 'sms'
`outboundId`	No	String	Unique identifier of outbound message generated by SAP Marketing
`campaignId`	No	String	Campaign ID of SAP Marketing that generates this email. Can be empty for send tests in campaign content and sender profile. Helpful for support.
`sourceSystem`	No	String	Logical System (SAP NetNeaver). Required to get corresponding bounces or complaints related to outbound messages.
`sender`	Yes	String	Sender address; name or phone number
`recipient`	Yes	String	Recipient; phone number
`bodyContentPlainText`	Yes	String	Body content as plain text and JSON encoded.

Request Example

Sample Code

```
Path /send
HTTP method POST


Content-Type: application/json
Encoding: UTF-8


Body:
{
    "type"                  : "sms",
    "outboundId"            : "33fds34534r4",
    "campaignId"            : "123456789",
    "sourceSystem"          : "ANACLNT100",
    "sender"                : "SAP News",
    "recipient"             : "+49123456789",
    "bodyContentPlainText"  : "Hello, this is plain text"
}
```

Response

Response Parameters

Parameter	Required	Data Type	Description
`messageId`	Yes	String	Unique identifier for outbound message provided by service provider. Could be `outboundId` if supported by service provider.
`errorCategory`	No	String	Permanent errors lead to a stop of the campaign execution. Errors that can be fixed by a retry result in multiple retries to resolve the issue before the campaign stops. Throttling reduces the throughput that is generated by the backend. Possible values are `Retriable`, `Permanent`, or `Throttling`.
`errorText`	No	String	Error text is written to the log and shown to the end user in plain text.

> **Note**
>
> - The response refers only to the text message sent using the connected service provider or SAP Cloud Platform. You can't get bounces, such as phone number is not valid, with the response. For more information, see Text Message: Collect Delivery Status [page 126].
> - Note that the success code must start with `2` followed by two digits, for example, `202`.

Response Example

> **Sample Code**

```
Response:
Success Code 202
Content-Type: application/json


{
    "messageId": "33fds34534r4"
}
```

Error Example

> **Sample Code**

```
Error Codes 4xx, 5xx:


{
```

```
    "errorCategory"    : "Retriable"
    "errorText"        : "Internal Server Error"
}
```

14.1.2.3.1.7 Text Message: Collect Delivery Status

With this method you get back the status of your connected text messages sent.

Request

URI: `/status`

HTTP Method: *GET*

Request Parameters

Parameter	Required	Data Type	Description
`sourceSystem`	No	String	Logical System (SAP NetWeaver). Required to get corresponding bounces or complaints related to outbound messages.
`startTimeUTC`	No	String	Timestamp to begin with query collected bounces on service provider side. Not needed in case of a bounce queue; format: `YYYYMMDDHHMMSS`
`endTimeUTC`	No	String	Timestamp to end with query collected bounces on service provider side. Not needed in case of a bounce queue; format: `YYYYMMDDHHMMSS`
`page`	No	Integer	Indicates the result page in case of multiple pages; possible values: 0..n

Request Example

```
/status

GET
sourceSystem=ANACLNT100
startTimeUTC=20170912144813
endTimeUTC=20170913144813
Page=2
```

Response

Response Parameters

Parameter	Required	Data Type	Description
`page`	No	Integer	Indicates the result page in case of multiple pages. Possible values are `0` to `n`
`lastPage`	Yes	Boolean	Indicates the last page of the result.
`status`	Yes	JSON Array	Contains the bounce details.
`messageId`	No	String	Reference to outbound message, see sending interface.
`recipient`	Yes	String	The phone number that bounced or created a complaint. Value: `phone number`
`type`	Yes	String	Type of feedback, depending on bounce or complaint use case. Possible values are: `Permanent` or `Temporary`. Note that the type is mapped in the SAP system as followed: `Permanent` - hard bounce `Temporary` - soft bounce
`timestamp`	No	String	Timestamp when bounce occurred. Format: `YYYYMMDDHHMMSS`
`statusCode`	No	String	The status code that your connected service provider sends back to inform you about the delivery status. Keep in mind that • status codes can't be mapped to statuses in the SAP system and • shall not be longer than 10 charakters due to further processing.
`errorText`	No	String	Error text for bounce message.

Response Example

Sample Code

```
{
    "page": 2,
    "lastPage": false,
    "status": [
                    {
                         "messageId"   : "12343243243413",
                         "recipient"   : "+49123456789",
                         "statusCode"  : "10",
                         "statusText"  : "Number does not exist",
                         "type"        : "Permanent",
                         "timestamp"   : "20170913144813"
                    }
          ]
```

```
}
```

14.1.2.3.1.8 Text Message: Get Unsubscribes

With this method you request the unsubscribes (also known as 'Stop Trigger') from your connected text message provider.

Request

URI: `/unsubscribes`

HTTP Method: *GET*

Request Parameters

Parameter	Required	Data Type	Description
`sourceSystem`	No	String	Logical system that is required to get unsubscribes related to outbound messages.
`startTimeUTC`	Yes	String	Timestamp to begin with query collected unsubscribes on service provider side. Format: `YYYYMMDDHHMMSS`
`endTimeUTC`	Yes	String	Timestamp to end with query collected unsubscribes on ESP side. Format: `YYYYMMDDHHMMSS`
`page`	No	Integer	Indicates the result page in case of multiple pages; possible values: 0..n

Request Example

```
/unsubscribes
GET
sourceSystem=ABCCLNT100
startTimeUTC=20180815064512
endTimeUTC=20180815073422
Page=2
```

Response

Response Parameters

Parameter	Required	Data Type	Description
`page`	No	Integer	Indicates the result page in case of multiple pages. Possible values are `0` to `n`

Parameter	Required	Data Type	Description
`lastPage`	Yes	Boolean	Indicates the last page of the result.
`unsubscribes`	Yes	JSON Array	Contains the unsubscribe details.
`outboundId`	No	String	Reference to outbound message, see sending interface. Unique identifier of outbound message generated by SAP Marketing.
`messageId`	No	String	Reference to an outbound ID provide by the generic ESP.
`recipient`	Yes	String	Phone number of the original text message that replied with an unsubscribe (stop trigger). Value: `phone number`
`sender`	No	String	Phone number to which the unsubscribe (stop trigger) was sent. Value: `phone number`
`timestamp`	Yes	String	Timestamp when unsubscribe occurred. Format: `YYYYMMDDHHMMSS`
`messageText`	No	String	Message text that was sent with the unsubscribe, for example, the campaign ID.

Response Example

Sample Code

```
{
    "page": 2,
    "lastPage": false,
    "unsubscribes": [
                    {
                    "outboundId"    : "AHGB789345",
                    "recipient"     : "+49123456789",
                    "messageText"   : "Stop 0815",
                    "timestamp"     : "20180913144813"
                    }
          ]
}
```

In the SAP system, a multi-level approach is implemented and, for example, evaluates

- `outboundId` first, in case that it is not provided
- `messageId`, in case it is not provided
- mobile number (recipient) only.
  For this level the system evaluates the message text if it contains a campaign ID. In this case the `campaignID` is considered with regards to marketing area separation.

Note: If one of the regarding values (`outboundId`, `messageId`) is not initial, the system takes the values as valid ones.

A fall back on other levels only happens, when the previous level values are initial.

14.1.2.4 Setting Up Amazon

To establish the connection to Amazon's Simple Email Service (SES) for email and bounce handling, you must do several steps at Amazon and at SAP.

Prerequisites

The following prerequisites exist for setting up Amazon as an email service provider:

- You are familiar with the basics of the *Amazon Service for Emails, Notifications and Queues*:
  - `aws.amazon.com/de/documentation/ses/`
  - `aws.amazon.com/de/documentation/sns/`
  - `aws.amazon.com/de/documentation/sqs/`
- You have access granted on Amazon for the following API methods:
  - `SendRawEmail` (SES)
  - `ListIdentities` (SES)
  - `GetIdentityVerificationAttributes` (SES)
  - `GetSendQuota` (SES)
  - `ReceiveMessage` (SQS)
  - `DeleteMessageBatch` (SQS)

  For more information, see Controlling Access to Amazon SES .

Set up

After you did the Settings at Amazon [page 131] and the Settings at SAP [page 133], you can execute email campaigns and send emails.

> **i Note**
>
> During the system setup and test phase, we recommend to use the *Campaign Execution Whitelist* app. The settings in the app prevent that target group members (contacts) receive emails when you execute an email campaign for test purposes.
>
> For more information, see Creating Whitelist Entries [page 145].

Settings at Amazon [page 131]
: Here you create an Amazon Web Services (AWS) account and verified email addresses. Then you configure your SNS topics and bounce queues, create Identity and Access Management (IAM) users, generate your credentials for the Simple Email Service (SES), and set up group administration for your users to assign policies.

Settings at SAP [page 133]
: After you did the configuration at Amazon, you go further with the configuration at SAP. Here you download the certificates, import them to the system, and establish the connection between Amazon and SAP.

How the System Reacts on Amazon's Throttling [page 134]
When Amazon runs into throttling, Amazon returns an error message. The SAP system reacts on it by reducing the send rate and processing the failed messages.

Related Information

SAP Marketing integration with AWS-SES Email provider
http://docs.aws.amazon.com/ses/latest/DeveloperGuide/before-you-begin.html
http://docs.aws.amazon.com/ses/latest/DeveloperGuide/configure-sns-notifications.html
http://docs.aws.amazon.com/AWSSimpleQueueService/latest/SQSDeveloperGuide/sqssubscribe.html

14.1.2.4.1 Settings at Amazon

Here you create an Amazon Web Services (AWS) account and verified email addresses. Then you configure your SNS topics and bounce queues, create Identity and Access Management (IAM) users, generate your credentials for the Simple Email Service (SES), and set up group administration for your users to assign policies.

1. Create an Amazon Web Services (AWS) account to get an account ID and password.
2. Log in to https://console.aws.amazon.com with your credentials.
3. Ensure, to select the correct region you intend to use. You see the region beside your account ID in the AWS Console itself and in the URL of your browser, for example, `https://eu-west-1.console.aws.amazon.com/ses/home?region=eu-west-1#`
4. In the AWS Console under *Identiy Management*, create the required verified sender email addresses under *Email Addresses*.
   You need the verified sender address, when you define a sender profile later on.

   > **i Note**
   >
   > Keep in mind that the *MAIL FROM Domain* of your verified email adresses must in the same region as the *Target Host* entered in the system connection later on.
   >
   > For more information, see Regions and Amazon SES .

5. Now edit the notification configuration for the verified sender email address by choosing *Notifications* > *Edit Configuration* > *Click here to create a ne Amazon SNS topic.* .
   An *Edit Notification Configuration* popup opens.
   Create a new Amazon SNS topic, for example, for bounces and complaints. Give the new topic the same name as the feedback queue, such as **AMAZON_BOUNCE**.
6. Then under *SNS Topic Configuration* select the previously created topics for bounces and complaints.

   > **i Note**
   >
   > Do not maintain a topic for deliveries. The system is not able to handle the delivery notification.

7. Also in the *Edit Notification Configuration* popup under *Email Feedback Forwarding*, disable the email feedback forwarding.

8. Save your configuration.
   After the saving you can find your Amazon Resource Names (ARN) under *Notifications*.
   For more information, see also Amazon Resource Names (ARNs) and AWS Service Namespaces .
9. In the *SQS* console, create a new queue with the same name you gave the feedback queue in technical configuration.
   To do so, choose *SQS* > *Create New Queue* and enter a topic name from the previous steps. Keep all other values as default and save your entries.
10. Subscribe to new queue to the SNS topic you created earlier.
    Go to your AWS-SES account and choose *Security Credentials*.
    Under *Your Security Credentials*, you create an IAM user required to send or used in *Sender Profiles*. We recommend to use IAM users to send emails as you can control with them the permissions and authorizations.
11. To start, choose *Get Started with IAM Users*:
    1. Choose *Create New Users*.
    2. Enter the user names.
    3. Select *Generate an access key for each user*.
    4. Choose *Create*.

    A confirmation message should appear that the users have been created.
12. Now you have set up an account at Amazon for and you receive the following parameters during account set-up:
    - *Amazon Access Key ID* (hash string)
    - *Secret Access Key* (hash string)
    - *Feedback Queue Path*
      The *Feedback Queue Path* is the last individual portion of the queue URL at Amazon. For example, the path from `https://sqs.eu-west-1.amazonaws.com/NNNNNNNNNNNN/ABC` is `/NNNNNNNNNNNN/ABC`.

    > **Note**
    >
    > You need these parameters again during the *Technical Configuration* and in the apps *Communication Systems* and *Communication Arrangements*.

13. In the AWS Dashboard under *Groups*, create a new group to assign policies to users. For example, create a group named **`Administrator`** and assign all the admin policies in the *Attach Policies* step.
14. To assign users to the created group, choose *Group Actions* > *Add Users to Group*.

Now follow-up with the Settings at SAP [page 133].

Related Information

How to Set Up Amazon SES as Email Service Provider

14.1.2.4.2 Settings at SAP

After you did the configuration at Amazon, you go further with the configuration at SAP. Here you download the certificates, import them to the system, and establish the connection between Amazon and SAP.

Import the Certificates [page 133]
Download the certificates and import them to the system of SAP Marketing.

Establish the System Connection [page 133]
Establish the connection between Amazon and the system of SAP Marketing.

14.1.2.4.2.1 Import the Certificates

Download the certificates and import them to the system of SAP Marketing.

Procedure

1. To download the certificates, open the URL https://email.eu-west-1.amazonaws.com/ in Chrome and open developer tools (CRTL + SHIFT + I or simply press F12).
2. Choose *Security* > *View certificate* and save all available certificates locally from the *Details* tab.
   - Store it as `Base-64` file.
   - The links do not work in all browsers. Use an appropriate browser to open the link.
   - You have the following options regarding installing the SSL certificates:
     - You can either install the intermediate and root certificates in your trust store (certificate chain)
     - or install the leaf certificate in your trust store.
3. Open the *Trust Manager* (transaction code: **STRUST**) and import all available certificates.

14.1.2.4.2.2 Establish the System Connection

Establish the connection between Amazon and the system of SAP Marketing.

Context

Procedure

1. Open the *Configuration of RFC Connections* (transaction code: **SM59**) and create RFC destinations for Amazon Mail and Amazon Bounce.

We recommend to:

- name them **AMAZONMAIL** and **AMAZONBOUNCE**.
- use *Connection Type* **G**
- use *Target Host*, for example, for email **email.eu-west-1.amazonaws.com** and for bounces **sqs.eu-west-1.amazonaws.com**
- use *Port* **443**
- use as *Path Prefix* the following entries:
  - *Bounce Queue Path*: The *Bounce Queue Path* (also known as *Feedback Queue Path*) is the last individual portion of the queue URL at Amazon. For example, the path from `https://sqs.eu-west-1.amazonaws.com/NNNNNNNNNNNN/ABC` is `/NNNNNNNNNNNN/ABC`.
  - *Unsubscribe Queue Path*: The *Unsubscribe Queue Path* is the last individual portion of the queue URL at Amazon for unsubscribe.
    For more information, see Enabling Automatic Unsubscribe for Emails by Amazon [page 152].

2. Check the security options on the *Logon & Security* tab:
   1. Set *SSL* to *Active*.
   2. Select the certificate list *ANONYM SSL Client (Anonymous)* as *SSL Certificate*. Note that the selected certificate list similar to the list you uploaded the certificates.
3. On the *Special Options* set the *HTTP Version* to *HTTP 1.1* and the *Compression* to *Active (full document)*
4. Finally perform a connection test.
   You should get *Status HTTP Response* `404`, which confirms that the connection to the Amazon server has been established.
5. Now maintain the provider credentials using the transaction *Set Amazon credentials in ABAP Secure Store* (transaction code **ME_AMAZONXS**).
   Select *Set Amazon SES Credentials* to maintain the Amazon credentials, such as *Access Key ID*, *Secret Access Key*, and *Feedback Queue*.
   Select *Use Multiple Service Providers* to create multiple service providers for Amazon. For more information, see Using Several Accounts for one Service Provider [page 142].
6. Finally maintain your sender profiles. For more information, see Sender Profiles [page 144].

Using Several Accounts

If you want to use several accounts, you must do the steps above for each account seperately. To get more information about the dependencies in the setup, see Using Several Accounts for one Service Provider [page 142].

14.1.2.4.3 How the System Reacts on Amazon's Throttling

When Amazon runs into throttling, Amazon returns an error message. The SAP system reacts on it by reducing the send rate and processing the failed messages.

When Amazon SES runs into throttling, it returns an error message with the following text: `API error: Code "400", Reason: "Bad Request", Message: "Throttling Maximum sending rate exceeded."`

This happens if the maximum send rate is exceeded.

The campaign execution reacts on it by reducing the number of parallel sent request to Amazon SES. Messages that failed due to the Amazon SES error are automatically reprocessed by the campaign execution.

As result of throttling the campaign execution needs more time to process all requests because it sends less in parallel to avoid that the maximum send rate is exceeded again.

> → Recommendation
>
> If the issue still persists, we recommend to exceed the quota at Amazon.

For more information, see also information given by Amazon: What Happens When You Reach Your Sending Limits?

14.1.2.5 Setting Up Alibaba Cloud DirectMail Service

Set up Alibaba Cloud DirectMail Service so that you can use it to send emails to your customers. Configurations, including RFC destinations and sender profiles, are required.

Prerequisites

You should be familiar with the basics of Alibaba Cloud DirectMail Service. For product details and documentation, see Alibaba Cloud DirectMail Service at the Alibaba Cloud site.

If you want to get bounces from the Alibaba Cloud platform, you need a basic knowledge of Alibaba Cloud Message Service. For product details and documentation, see Alibaba Cloud Message Service at the Alibaba Cloud site.

The following are concrete prerequisites that you must meet:

- You have an account on the Alibaba Cloud platform (https://www.aliyun.com/).
- You have created a pair of access key and secret key for your Alibaba Cloud account in the Alibaba Cloud Console, under *accesskeys*.
  A pair of access key and secret key is required to call Alibaba Cloud APIs. Later you need to configure them in SAP Marketing.
- You have activated Alibaba Cloud DirectMail Service and completed the following configurations in the Alibaba Cloud DirectMail Service Console:
  - Email domain
    See Setting Up Domain Names at the Alibaba Cloud site for instructions.
  - Sender address
    When creating a sender profile in SAP Marketing, you must provide a sender address that has been configured in the DirectMail Service Console.
    For instructions on how to create a sender address, see Setting Up Sender Addresses at the Alibaba Cloud site.
- You have activated Alibaba Cloud Message Service and created message queues in the Alibaba Cloud Message Service Console.
  Use this service only if you want to get bounce data for e-mail campaigns from the Alibaba Cloud platform.
  For instructions on how to create a message queue, see Queue Operations at the Alibaba Cloud site.

Procedure

1. Add the SSL certificates of Alibaba Cloud DirectMail Service and Alibaba Cloud Message Service to the trust list of SAP Marketing.
   For more information, see Importing SSL Certificates [page 136].
2. Create the technical configurations required to establish communication between Alibaba Cloud and SAP Marketing by running a task list.
   For more information, see Creating Technical Configurations [page 136].
3. Create a sender profile.
   For more information, see Creating a Sender Profile [page 137].

Related Information

Function Documentation: Email Campaigns Using Alibaba Cloud DirectMail Service

14.1.2.5.1 Importing SSL Certificates

Import the SSL certificate for Alibaba Cloud DirectMail Service into SAP Marketing. If you want to get bounces from the Alibaba Cloud platform, import the SSL certificate for Alibaba Cloud Message Service as well.

Proceed as follows:

1. Download the SSL certificates from the following sites:
   - Certificate for Alibaba Cloud DirectMail Service: https://dm.aliyuncs.com/
   - Certificate for Alibaba Cloud Message Service (region: East China 1): https://mns.cn-hangzhou.aliyuncs.com/
2. In the back-end system, call up transaction `STRUST` and switch to change mode.
3. Choose the SSL client *SSL Client (Standard)*.
4. From the *Certificate* area, choose *Import Certificate* and import a certificate.
5. Choose *Add to Certificate List* and save the PSE file.

14.1.2.5.2 Creating Technical Configurations

Create the technical configurations required for the integration with Alibaba Cloud DirectMail Service, for example, RFC destinations and service providers, by running a task list.

Proceed as follows:

1. In the back-end system, call up transaction `STC01`.
2. Display task list `CUAN_LOCALIZATION_CN`.
3. Choose *Generate Task List Run*.
4. Choose the *Change Parameters* button for the first task *Define Parameters for Setting Up Asia Localization*.

5. Select the *AliCloud DirectMail and Bounce* checkbox.
   The parameters for Alibaba Cloud DirectMail Service and bounces display.
6. Enter the access key and secret key for your Alibaba Cloud account.
   These parameters are required to call Alibaba Cloud APIs.
7. In the *Regions and Queues* section, select the *Option 1* checkbox. In the first input field after the checkbox, enter a service region code defined by Alibaba Cloud, for example, `cn-hangzhou`.
8. Configure the following parameters, which are required only if you want to get bounces from the Alibaba Cloud platform:
   - Alibaba Cloud account ID
     You can find the Alibaba Cloud account ID from the Alibaba Cloud Console, under *Account Management* > *Security Settings*.
   - Message queue for getting bounces
     In the *Regions and Queues* section, enter your message queue for getting bounces in the input field after the region code. The message queue for getting bounces is the one that you have created in the Alibaba Cloud Message Service Console under *Message Queue*.

14.1.2.5.3 Creating a Sender Profile

Create a sender profile that contains settings about an email sender (for example, service provider and sender name) using the *Sender Profiles* app.

When you complete running task list `CUAN_LOCALIZATION_CN`, the system creates a sender profile with the ID you have specified automatically. However, it is incomplete. You should fill in more information, such as sender address and sender name.

To create a sender profile for Alibaba Cloud DirectMail Service, proceed as follows:

1. Log into SAP Fiori launchpad.
2. Open the *Sender Profiles* app.
3. Select the sender profile with the ID specified in the task list from the left pane.
4. Choose *Edit*. You can also create a new sender profile based on it by choosing *Copy*.
5. Enter the required information.
   The sender address that you enter must have been configured in the Alibaba Cloud DirectMail Service Console.

14.1.2.6 Setting Up Alibaba Cloud Short Message Service

Set up Alibaba Cloud Short Message Service (Alibaba Cloud SMS) so that you can use it to send text messages to your customers. Configurations, including RFC destinations, export definitions, and sender profiles, are required.

Prerequisites

You should be familiar with the basics of Alibaba Cloud SMS. For product details and documentation, see Alibaba Cloud SMS at the Alibaba Cloud site.

If you want to get bounces from the Alibaba Cloud platform, you need a basic knowledge of Alibaba Cloud Message Service. For product details and documentation, see Alibaba Cloud Message Service at the Alibaba Cloud site.

The following are concrete prerequisites that you must meet:

- You have an account on the Alibaba Cloud platform (https://www.aliyun.com/).
- You have created a pair of access key and secret key for your Alibaba Cloud account in the Alibaba Cloud Console, under *accesskeys*.
  A pair of access key and secret key is required to call Alibaba Cloud APIs. Later you need to configure them in SAP Marketing.
  For instructions on how to create access keys and secret keys, see Creating an Access Key at the Alibaba Cloud site.
- You have activated Alibaba Cloud SMS and completed the following configurations in the Alibaba Cloud SMS Console:
  - Text message signatures
    Text message signatures in the Alibaba Cloud SMS Console refer to **sender names** in SAP Marketing. When creating a sender profile in SAP Marketing, you must provide a sender name (text message signature) that has been approved by Alibaba Cloud.
    For instructions, see Applying For a Text Message Signature at the Alibaba Cloud site.
  - Text message templates
    When creating a text message campaign in SAP Marketing, you must provide a text message template that has been approved by Alibaba Cloud.
    If you want to use customer attribute variables in a text message template, you must have an export definition that contains customer attribute variables in SAP Marketing and enter their technical names in your template in the Alibaba Cloud SMS Console. For more information, see Creating an Export Definition [page 141].
    For instructions on how to create a text message template, see Applying For a Text Message Template at the Alibaba Cloud site.
- You have activated Alibaba Cloud Message Service and created message queues in the Alibaba Cloud Message Service Console.
  Use this service only if you want to get bounce data for text message campaigns from the Alibaba Cloud platform.
  For instructions on how to create a message queue, see Queue Operations at the Alibaba Cloud site.

Procedure

1. Add the SSL certificates of Alibaba Cloud SMS and Alibaba Cloud Message Service to the trust list of SAP Marketing.
   For more information, see Importing SSL Certificates [page 139].
2. Create the technical configurations required to establish communication between Alibaba Cloud and SAP Marketing by running a task list.
   For more information, see Creating Technical Configurations [page 139].
3. Create a sender profile.
   For more information, see Creating a Sender Profile [page 140].
4. Create an export definition that contains personalization variables (customer attributes) to be used in campaign text messages.
   For more information, see Creating an Export Definition [page 141].

Related Information

Function Documentation: Text Message Campaigns Using Alibaba Cloud Short Message Service

14.1.2.6.1 Importing SSL Certificates

Import the SSL certificate for Alibaba Cloud SMS into SAP Marketing. If you want to get bounces from the Alibaba Cloud platform, import the SSL certificate for Alibaba Cloud Message Service as well.

Proceed as follows:

1. Download the SSL certificates from the following sites:
   - Certificate for Alibaba Cloud SMS: https://dysmsapi.aliyuncs.com/
   - Certificate for Alibaba Cloud Message Service (region `cn-hangzhou`): https://mns.cn-hangzhou.aliyuncs.com/
2. In the back-end system, call up transaction `STRUST` and switch to change mode.
3. Choose the SSL client *SSL Client (Standard)*.
4. From the *Certificate* area, choose *Import Certificate* and import a certificate.
5. Choose *Add to Certificate List* and save the PSE file.

14.1.2.6.2 Creating Technical Configurations

Create the technical configurations required for the integration with Alibaba Cloud SMS, for example, RFC destinations and service providers, by running a task list.

Proceed as follows:

1. In the back-end system, call up transaction `STC01`.

2. Display task list `CUAN_LOCALIZATION_CN`.
3. Choose *Generate Task List Run*.
4. Choose the *Change Parameters* button for the first task *Define Parameters for Setting Up Asia Localization*.
5. Select the *AliCloud SMS and Bounce* checkbox.
   The parameters for Alibaba Cloud SMS and bounces display.
6. Enter the access key and secret key for your Alibaba Cloud account.
   These parameters are required to call Alibaba Cloud APIs.
7. In the *Regions and Queues* section, select the *Option 1* checkbox. In the first input field after the checkbox, enter a service region code defined by Alibaba Cloud, for example, `cn-hangzhou`.
8. Configure the following parameters, which are required only if you want to get bounces from the Alibaba Cloud platform:
   - Alibaba Cloud account ID
     This ID has a fixed value **1943695596114318**. It is not your Alibaba Cloud account ID that you can find from the Alibaba Cloud Console.
   - Message queue for getting SMS sending reports
     In the *Regions and Queues* section, enter your message queue for getting SMS sending reports in the input field after the region code. You can find the message queue name from the Alibaba Cloud SMS Console, under *Application Development* > *API* > *SMS Sending Report*. The message queue name looks like **Alicom-Queue-**`<a specific ID>`**-SmsReport**.

14.1.2.6.3 Creating a Sender Profile

Create a sender profile that contains settings about a text message sender (for example, service provider and sender name) using the *Sender Profiles* app.

When you complete running task list `CUAN_LOCALIZATION_CN`, the system creates a sender profile with the ID you have specified automatically. However, it is incomplete. You should fill in more information, such as sender address and sender name.

To create a sender profile for Alibaba Cloud SMS, proceed as follows:

1. Log into SAP Fiori launchpad.
2. Open the *Sender Profiles* app.
3. Select the sender profile with the ID specified in the task list from the left pane.
4. Choose *Edit*. You can also create a new sender profile based on it by choosing *Copy*.
5. Enter the required information.

> **i Note**
>
> Sender names in SAP Marketing refer to text message signatures in the Alibaba Cloud SMS Console. Here you must provide a sender name (text message signature) that has been approved by Alibaba Cloud.

14.1.2.6.4 Creating an Export Definition

If you want to use customer attribute variables, such as first name and last name, to personalize your campaign text messages, create an export definition and add the customer attributes that you want to use into it.

To send text messages using Alibaba Cloud SMS, one of the prerequisites is that you create text message templates in the Alibaba Cloud SMS Console. You can include customer attribute variables in text message templates. When setting the parameters for the *Send Alibaba Text Message* campaign action, you specify a text message template ID and an export definition that contains the customer attributes used in the template. You can use an export definition predefined by SAP or create your own export definition.

> **i Note**
>
> If the text message to be sent contains customer attribute variables, then the segmentation profiles of the export definition and target group assigned to the *Send Alibaba Text Message* campaign action must be the same.

Using the Predefined Export Definition

SAP provides you with a predefined export definition `Template_Alibaba_SMS`, which contains the customer attribute variables most commonly used in campaign content. This export definition is available after you have created the required technical configurations by running task list `CUAN_LOCALIZATION_CN`. The predefined export definition contains the following customer attributes:

Export Definition	Attribute	Technical Name of Attribute
`Template_Alibaba_SMS`	Region	`REGION`
	Postal Code	`POSTCODE1`
	Full Name	`NAME_TEXT`
	Last Name	`NAME_LAST`
	First Name	`NAME_FIRST`

You can use these customer attributes as personalization variables when creating text message templates in the Alibaba Cloud SMS Console.

> **i Note**
>
> Segmentation profile `SAP_CE_CONTACT_1508` is assigned to the predefined export definition `Template_Alibaba_SMS`. If you specify `Template_Alibaba_SMS` for the *Send Alibaba Text Message* campaign action, then you must specify a target group that is assigned the same segmentation profile `SAP_CE_CONTACT_1508`.

Creating Your Own Export Definition

You create your own export definitions using the *Export Definitions* app. Select the *Alibaba SMS* usage. When deciding on a segmentation profile, keep in mind that the segmentation profiles of the export definition and target group assigned to the *Send Alibaba Text Message* campaign action must be the same.

Using Customer Attribute Variables in a Text Message Template

To personalize your campaign text message with customer attribute variables, you include the technical names of customer attributes where needed in a text message template in the Alibaba Cloud SMS Console. You get technical names of customer attributes from SAP Marketing. To find the technical name of an attribute, do the following:

1. Log into SAP Fiori launchpad.
2. Open the *Segmentation Configuration* app.
3. Select *Segmentation Profiles*.
4. Select the segmentation profile that is assigned to your export definition.
5. In the *Attribute Visibility* section, click the attribute you are looking for, for example, **Full Name**.
   An information box appears. The technical name `NAME_TEXT` is displayed right under the attribute name.

> **i** Note
>
> The technical name of an attribute that you enter in a template must be the same as that in SAP Marketing. If there is an underscore (_) in a technical name, remove it and do not leave a space.
>
> > ✤ Example
> >
> > If you want to use the Full Name (`NAME_TEXT`) attribute in your template, enter **`NAMETEXT`**.

14.1.2.7 Using Several Accounts for one Service Provider

In case you want to run campaigns for different customers you can use several instances of the same service provider to gain a better overview about your figures and costs.

But when you plan to create several instances of one service provider, you must keep the following in mind:

- For each service provider account, you create an RFC connection, a provider ID, and a sender profile ID.

  > → Recommendation
  >
  > We recommend that you define all names and IDs upfront, **BEFORE** you start with the creation of the system connection.

Example

In the following example you got 2 accounts from SAP Digital Interconnect: Both have the same host, but different users and passwords.

You define upfront that the provider IDs shall be **`sapDI_01`** and **`sapDI_02`** and the IDs for the generated sender profiles shall be **`DI01`** and **`DI02`**.

		Example Account 1	Example Account 2
Account of Service Provider			
Given by Provider			
	Host	email-eu1.sapdigitalinter-connect.com	email-eu1.sapdigitalinter-connect.com
	User	abc_def1234	xyz_def9876
	Password	6T5z)f§45d§	98(6/idRt$m
Defined by Customer			
	Provider ID	sapDI_01	sapDI_02
	Sender Profile ID	DI01	DI02
Assigned by Customer			
	Host	email-eu1.sapdigitalinter-connect.com	email-eu1.sapdigitalinter-connect.com
	User	abc_def1234	xyz_def9876
	Password	6T5z)f§45d§	98(6/idRt$m
Assigned by Customer			
	Provider ID	sapDI_01	sapDI_02
	Sender Profile ID	DI01	DI02
	Path	/in365-api/abc_def1234/notifications	/in365-api/xyz_def9876/notifications

- In the *Configuration of RFC Connections* (transaction code: `SM59`) , you create your system instance with the host given by your service provider.
  For every account of any service provider, you must create a system connection, where you assign the account credentials such as user and password. Depending on the service provider, it can be possible that you use for every account of the same provider the same host.
- For each additional system connection entry, you must enter also new provider and sender profile IDs.

> **i Note**
>
> You cannot use IDs that are reserved for other service providers, such as Alibaba Cloud.
>
> The following provider and sender profile IDs are reserved:
>
> | Provider ID | Sender Profile ID |
> |---|---|
> | aliMail | AM |
> | aliSMS | AS |
> | sapGeneric | GNML |
> | genSmsAdap | GENS |
> | mobPush | MPN |
> | sapMS1025 | MSTS |
>
> Note that the *Provider ID* is case-sensitive and that the IDs are also reserving entries that are starting with these IDs as prefix.
>
> For example, *Provider ID* **`aliMail`** reserves also entries starting with **`aliMail*`** (but not **`ALIMail*`**), whereas *Sender Profile ID* **`AM`** reserves also entries starting with **`AM*`**.

The steps for the setup itself are the same as described in the chapters Setting Up SAP Digital Interconnect [page 110] and Setting Up Amazon [page 130].

In the *Sender Profiles* app then you must complete the generated sender profiles, with, for example, a sender address. There you can also change the assigned marketing area and also copy the profiles. But be aware that the copied profile uses the **SAME** provider ID as the source profile.

14.1.2.8 Sender Profiles

A sender profile allows you to carry out campaigns for different channels in different markets. You can maintain sender profiles for channels, such as email, text message, and mobile push notifications.

Prerequisites

- You have set up the service provider for emails and text messages.
  For more information, see Setting Up Service Provider for Emails and Text Messages [page 105].
- You have done the steps in Customizing for SAP Marketing, by choosing *Campaigns* > *Campaign* > *Define Sender Profile*.
- You have registered the *Sender Address* and the *Reply-To Address* at SAP Digital Interconnect and/or Amazon.

> **i Note**
>
> Note that the registered email address is case-sensitive for Amazon and SAP Digital Interconnect.

Recommendation: Test Sender Profiles

To test the maintained sender profiles, we recommend to use *Send Test Email* or *Send Test Text Message* to ensure that the settings are working. Otherwise the issues can appear during campaign execution.

Related Information

Mobile Campaigns
Opting-Out and Unsubscribing by Email

14.1.2.9 Provider Credentials

Provider credentials are provided by a service provider such as Alibaba for sending emails and text messages out of your system. You can maintain the provider credentials and update them in case of changes after the setup.

> **i** Note
>
> The maintanance of provider credentials has been moved as of SAP Marketing 1909.
>
> To maintain the credentials for SAP Digital Interconnect and Amazon, follow the steps under Setting Up SAP Digital Interconnect [page 110] and Setting Up Amazon [page 130].

14.1.2.10 Creating Whitelist Entries

The *Campaign Execution Whitelist* app manages the allowed recipients for your campaigns in the test system. You can maintain the allowed email addresses and telephone numbers that you want to use when you create marketing campaigns for test purposes. With the entries you avoid to send test emails and test text messages to your customers.

> **i** Note
>
> - You use this app only in your test system.
> - As soons as you have maintained email addresses or telephone numbers in the *Campaign Execution Whitelist* app, only those recipients from this list can be contacted.

Create an Entry

1. Choose *Create Object* (+) to create a new whitelist entry.
2. Select a *Communication Medium* (`EMAIL` or `SMS`).
3. Depending of your selected *Communication Medium* enter either an email address or a telephone number.

> **i Note**
>
> - Note that you can use wild card entries for email addresses by just entering the domain name, for example, **`@example.net`**.
>
>   > **Example**
>   >
>   > For example, your whitelist has the entries **`john.doe@example.com`**, **`jane.smith@example.net`**, and **`@example.net`**. So only John Doe, Jane Smith, and recipients from **example.net** can receive emails from an executed campaign.
>
> - Enter the telephone numbers using the schema **`+<country code>nnn`**, because otherwise the telephone numbers cannot be cross-checked with the master data entries.
>
>   > **Example**
>   >
>   > **`+1nnnnnn`** for a telephone number located in the United States or **`+49nnnnnn`** for a telephone number located in Germany.

4. Save your entry.

> **i Note**
>
> When you create a whitelist entry, the system checks whether there is already an existing blacklist entry with the same email address or email domain or mobile phone number. In case, an entry exists in the blacklist, the system rejects this entry in the whitelist.
>
> This behaviour is also valid for overlapping email domains. For example, if the blacklist has an email entry **`@example.org`**, you can't add the email address **`joe.public@example.org`** to the whitelist.

14.1.2.11 Campaign Execution Blacklist

With the *Campaign Execution Blacklist* app you can maintain full specified email addresses, email domains, and mobile phone numbers that shall be blacklisted for any reason within campaign actions *Send Email* or *Send Text Message*.

The system checks all sent emails and text messages in executed campaigns or from send test functionality in the *Content Studio* or *Sender Profiles* app.

If the email address or the mobile phone number is part of the blacklist, the system prevents sending the message to the recipient.

During the execution of a campaign, a corresponding interaction `OUTBOUND_CHCK_FAILED` with the reason `BLACKLISTED` is written. You see the number of written interactions in the campaign performance analysis on the *Overview* tab of the campaign.

For send test, the system does not write any interaction, but error messages are shown in the app for those email addresses or phone numbers of the recipients that are blacklisted.

A blacklist entry with full specified email address consists of the local part and the domain part, for example, **`john.doe@example.com`**. All emails sent to this email address are rejected.

A blacklist entry with an email domain consists of the `@` (at) and the full specified domain, for example, `@example.org`. All emails to addresses having this domain are rejected.

> **Example**
>
> Blacklist entry is `@example.edu`.
>
> Emails are sent to following recipients:
>
> - `john.doe@example.com`
> - `jack.smith@example.edu`
> - `jane.doe@example.edu`
>
> **Result:** Emails are rejected for Jack and Jane.

A blacklist entry with a full specified mobile phone number consists of the `+` (plus) and the number, for example, `+1 234 111111`. All text messages sent to this phone number are rejected.

Wildcards, such as `*` or `%`, are not supported in the blacklist entries at all.

Create an Entry

When you create a blacklist entry, the system checks whether it is already maintained and shows a corresponding message. You cannot maintain the same email address or phone number in several blacklist entries.

When you create an entry for a full specified email address, the system does not check if there is already an entry with the domain part of that email address. So, you can have a blacklist entry with `john.doe@example.com` and a second one with `@example.com`.

When you create a blacklist entry, the system checks whether there is already an existing whitelist entry with the same email address or email domain or mobile phone number. In case, an entry exists in the whitelist, the system removes it from the whitelist.

Import

You can upload several blacklist entries by importing a CSV file.

During the import, the system checks the consistency of the CSV file. If there are issues, such as duplicated entries, wrong syntax, or wrong communication medium, the system rejects the import and shows error messages.

When you edit the CSV file with a tool, like Microsoft Excel, take care that you save the file back in the format *CSV UTF-8 (Comma delimited) (*.csv)*. The import supports only CSV files with UTF-8 encoding which then ensures the correct handling of special characters, such as German umlauts used in the *Reason* field.

Also keep in mind that the *Communication Medium* must always be filled, and depending on the selected communication medium either the email or the phone number.

Related Information

Creating Whitelist Entries [page 145]

14.1.2.12 Handling Bounces

Invalid contact data can result in soft and hard bounces. The system tracks the bounces and helps you with this information to optimize the reachability of your customers.

	Email	Text Message
Soft Bounce	A soft bounce is returned when the email address of the recipient is valid, but the mail server bounced back. Typical examples for soft bounces are when the mailbox of the recipient is full or when the mail server is currently down. The soft bounce updates the interaction from `EMAIL_OUTBOUND` to `EMAIL_BOUNCE_SOFT` for the contact and the campaign. The system does not perform any follow-up processing for soft bounces.	A soft bounce is returned when, for example, the delivery of the message failed, or the deposit of a prepaid card was consumed. The soft bounce updates the interaction from `SMS_OUTBOUND` to `SMS_BOUNCE_SOFT` for the contact and the campaign. The system does not perform any follow-up processing for soft bounces.
Hard Bounce	A hard bounce is returned when the email address of the recipient is permanently rejected. For example, if the email address is not valid or does not exist. The hard bounce updates the interaction from `EMAIL_OUTBOUND` to `EMAIL_BOUNCE_HARD` for the contact. After a hard bounce, the system removes the email address in the contact master.	A hard bounce is returned when the mobile phone number of the recipient is permanently is rejected. For example, if the mobile phone number is not valid or does not exist. The hard bounce updates the interaction from `SMS_OUTBOUND` to `SMS_BOUNCE_HARD` for the contact. After a hard bounce, the system removes the mobile phone number in the contact master.

i Note

- When the system gets bounces, the counter for the outbound interactions goes down.
- Also, an email address or mobile phone number is validated again when:
  - the system receives other inbound interactions for the invalid email address or phone number. Note that this happens for all contacts using this email address or phone number.
  - a contact is subsequently updated from a new data source with a hard-bounced email address or phone number.
  - a new contact is created with a hard-bounced email address or phone number, but only for the contact involved.

Recommended Quality Checks

There are checks that can be performed on the contact data stored in source systems to ensure that the basic formatting and details are correct for the email addresses and phone numbers. We recommend the following:

- Ensure that all email addresses and mobile phone numbers are correct and remove the incorrect ones from the list.
- Obtain a breakdown of email addresses by internet service provider (ISP) such as GMAIL. A breakdown helps to monitor which emails are going into junk folders or are being considered as spam.

How to get back email addresses following hard bounces?

If the hard bounces happened by mistake and you need to restore the invalidated emails, then you have the following option:

To solve the issue and revalidate the email addresses, you can upload dummy interactions for those email addresses, for example, using the file upload. We recommend using either a custom interaction type, such as `Z_EMAIL_REVALIDATION` or you use the standard type `EMAIL_INBOUND`.

Related Information

Validation Checks for Email and Phone Numbers
Bounces, Unsubscribes, and Complaints [page 152]

14.1.2.12.1 Monitor Email Bounces Using Success Data

Get an overview of how email bounces are handled by the system and reflected in the performance details of a campaign.

> ### Example
>
> The following example shows the interactions and key performance indicators (KPIs) for a campaign after it has been executed. The campaign has a target group with 5 members, and an email has been sent to all target group members. The initial results are the following:
>
> - 4 emails have been delivered to the email service provider (ESP).
> - 1 email delivery failed due to missing marketing permissions.
> - 2 email addresses are erroneous.
> - ESP is unavailable for 1 email address.
>
> The system creates the following interactions:
>
> - 1 `EMAIL_OUTBOUND` interaction. Only as long as the system hasn't got back the bounces, the count is 4.
> - 1 `OUTBOUND_CHCK_FAILED` interaction

- 2 `EMAIL_BOUNCE_HARD` interactions
- 1 `EMAIL_BOUNCE_SOFT` interaction

You can also find the interactions in the *Contacts* app under *Interactions*.

The following key performance indicators (KPIs) are displayed in the campaign under *Performance*:

- *Marketing Permission Check Failed*: `1`
- *Number of Sent Messages*: `4`
  Formula: Sent Messages = (Number of Delivered Messages + Sum of Soft and Hard Bounced Messages)
  Which means: 4 Sent Messages = 1 delivered + 2 hard bounce + 1 soft bounce
- *Number of Hard Bounces*: `2`
- *Number of Soft Bounces*: `1`
- *Number of Delivered Messages*: `1`
  Formula: Delivered Messages = Number of `EMAIL_OUTBOUND` Interactions

KPIs

The KPIs are calculated based on the interactions created in the system. They are part of the CDS view *Campaign Success for Messages* (`C_MKT_CampaignSuccessQ` and `C_MKT_CAMPAIGNSUCCESS2Q`).

The KPIs *Sent Messages* and *Delivered Messages* do not yet give any information that the email was delivered to the email address of the contact. The KPIs give the information that the email is sent to the connected ESP, such as SAP Digital Interconnect.

To get the **bounce codes** and **descriptions**, add the attributes *Business Document Status* and *Business Document Status Description* to your analyses.

For more information, see Campaign Success for Messages.

Email Open and Click Through

When a contact receives the email and opens the email or clicks a trackable link from the email, an `EMAIL_OPENED` and `CLICK_THROUGH` interaction is created. When the contact opens the email, the system creates an `EMAIL_OPENED` interaction. However, the system creates a `CLICK_THROUGH` interaction each time a link within the email is opened. The interaction is created with a reference to the `EMAIL_OUTBOUND` interaction.

The `EMAIL_OPENED` and `CLICK_THROUGH` interaction information is also available in the campaign performance area.

When the contact clicks on a link inside an email several times, the number of `CLICK_THROUGH` interactions increases.

Delivered Email and Soft Bounce

In some cases, the ESP first sends a soft bounce response to your system, then later delivers the email successfully. In that case, the system first creates a soft bounce interaction. When the contact opens the email, or opens a trackable link from the email, the soft bounce changes to an `EMAIL_OUTBOUND` interaction.

The system can't update the `EMAIL_BOUNCE_SOFT` interaction when the email is delivered after a soft bounce and remains unopened.

14.1.2.12.2 Monitor Bounces Using Segmentation

Fetch bounce data from segmentation.

Configuration

Before you create a new segmentation model, you must add some key attributes to the segmentation object using the segmentation configuration. Please refer to the segmentation configuration documentation for general details.

Most segmentation objects have the *Interaction Type*, *Campaign* (ID), and *Interaction Date* attributes available in the *Interactions* group. However, you must add the *ID* of the contact using the segmentation configuration.

For example, you can use the *All Contacts* segmentation profile to add the *ID* attribute for the underlying segmentation object *All Contacts* (`SAP_CONTACT_ENGAGEMENT_SIN`) . The *ID* field is available in the data source *Contacts, ERP Customers, and Related Interactions* (`SAP_CE_CONTACT_IA_ERP_CUSTOMER`) where *ID* (`ID`) is a required attribute.

You set the *Visible as Attribute* flag and add the *ID* field to the *Interactions* attribute group.

Segmentation

For many scenarios, the figures in the performance screen and the information in the contact details are sufficient. However, in some cases, you might need more detailed information. The following steps show you how to get bounce information using the segmentation:

1. **Campaign Interactions in Segmentation**
   To get more information about the email opened interaction, create a segmentation model in the *Segmentation* app and use the campaign ID as a filter.
   Use the preview for the interaction type attribute to see which interactions are created for the campaign: The numbers in the *Count* field must match the figures from the campaign success screen.
   You can use the following attributes to get additional information:
   - *Name* to get the full name of the contact.
   - *ID* to get the email address.

- *Interaction Date* to understand when the email was opened.

2. **Find Hard Bounces**
   When a campaign throws hard bounces in the campaign success screen, you must fetch the email addresses that caused the hard bounce.
   Due to the hard bounce, the email ID of the interaction contact is not valid and no longer available in the contact details.
   To get the bounced email addresses, use the segmentation model to filter for the campaign ID and the hard bounce interactions. Use the preview for the *ID* attribute to see the bounced email addresses, then use this information for follow-up processing.
3. **Export Data**
   Now you can export the data using the *Export to CSV* feature of the preview in segmentation.

Related Information

Segmentation Configuration

14.1.2.13 Bounces, Unsubscribes, and Complaints

The SAP system collects records, such as bounces, unsubscribes and complaints, from the service provider using a background job. Find out more, how this influences the figures on the *Performance* tab of your campaign, as collecting bounces, unsubscribes, and complaints can take up to 20 Minutes.

The job is executed every 10 minutes, when the campaign has been executed within the last 48 hours. After 48 hours, the records are collected every 4 hours. If there are records returned, the handler takes the records received from the service provider and creates the interactions.

Note for **SAP Digital Interconnect** that the report takes up to 10 Minutes and **SAP Digital Interconnect** also needs up to 10 Minutes to provide the records. So, it can take up to 20 Minutes to get the figures on the *Performance* tab in the respective campaign.

The same is valid for **soft bounces** from email service providers (ESP): The ESP tries several times to deliver the email to the reciepient. When, for example, a time limit or the maximum number of retries has been reached, the ESP sends a soft bounce to the SAP system. These thresholds may differ from ESP to ESP.

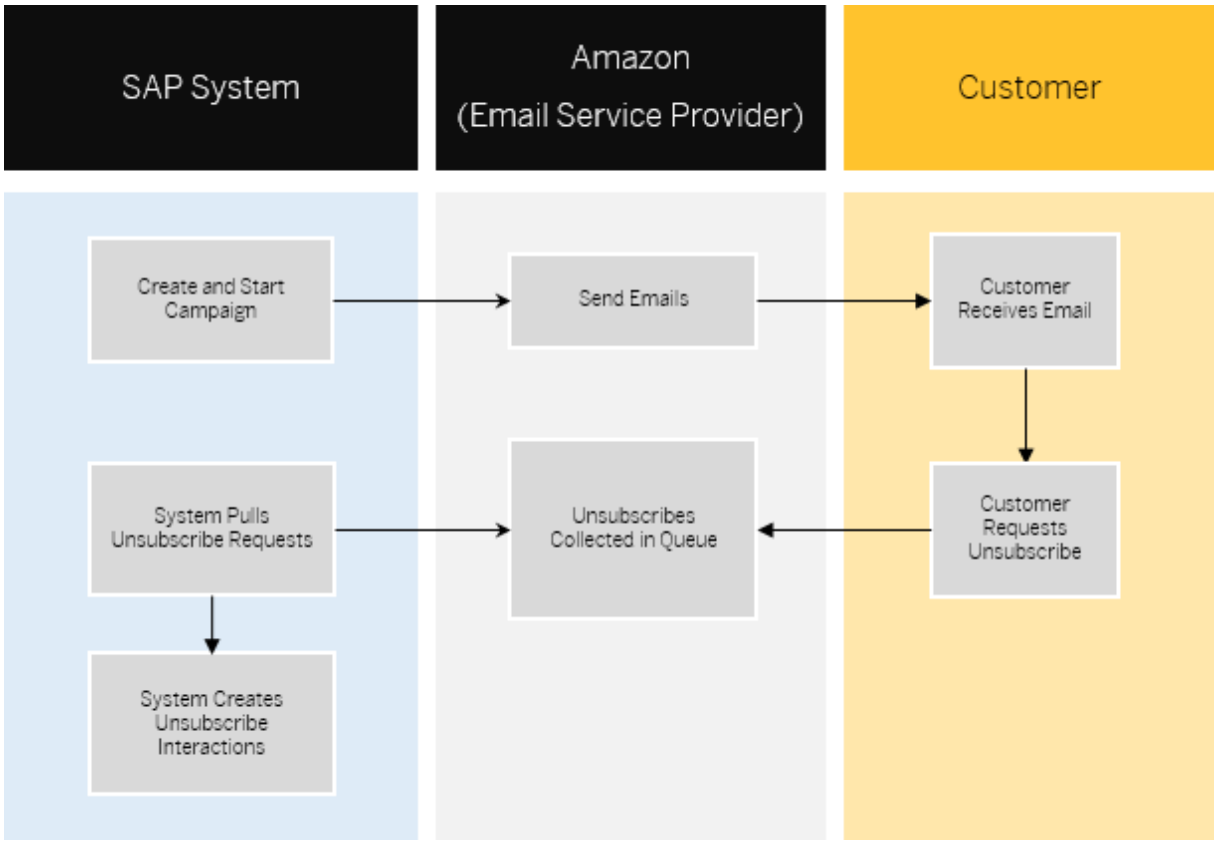
14.1.2.14 Enabling Automatic Unsubscribe for Emails by Amazon

When you want to use the unsubscribe offered by Amazon, you need to do settings at Amazon and at SAP.

After you did all the settings, the header of the recipient's email contains the possibility to unsubscribe.

If the contact does not want to get further emails, she or he sends an unsubscribe request to the unsubscribe email address entered in the sender profile. The unsubscribe requests are collected on Amazon side in a queue. A background job then pulls the unsubscribe requests from Amazon and creates corresponding interactions in

the system. The system evaluates the interactions and updates marketing permissions or list subscriptions for the marketing contact.



In detail the following steps will happen:

1. The marketing expert executes an email campaign.
2. The system sends out the marketing emails.
3. A recipient is getting an email in the inbox.
4. The recipient unsubscribes by clicking on the option in the email header.
5. Email client sends an unsubscribe request to unsubscribe email address of Amazon.
6. Amazon collects unsubscribe requests in a queue.
7. SAP pulls the unsubscribe requests and creates interactions.
8. Based on the interactions the system updates marketing permissions and list subscriptions.

Setup

At Amazon

1. Create and configure an AWS account. For more information, see Before You Begin .
2. Registering a New Domain .
3. Check and verify your domain. For more information, see Verify your Domain , Amazon SES Domain Verification TXT Records , and Publishing an MX Record for Amazon SES Email Receiving .
4. Now you can create your rule set. For more information, see Set up a Receipt Rule .

Note that when you create a rule, choose action type **SNS** (instead of **S3** mentioned in the documentation) and give the SNS topic a meaningful name such as **unsubscribe**.

5. Then create a queue with Amazon Simple Queue Service (SQS) by choosing *Subscribe Queue to SNS Topic* from the dropdown menu. Important here to know is that you must connect this queue with the previously created SNS topic. For more information, see Create a Queue in Amazon Simple Queue Service .

At SAP

1. In the technical configuration (report `CUAN_TECH_CONF_CA`) enter the *Unsubscribe Queue Path* in the section *Credentials for Amazon SES*. This path represents the Amazon queue as created in the previous steps on Amazon side.
   Then run the technical configuration (report `CUAN_TECH_CONF_CA`) for the initial setup.
   Note that you can change the settings later using transaction `SM59` in the backend.
2. Alternatively to the technical configuration, open transaction `SM59` and create an HTTP connection to an external server.
   Choose connection type **G** and enter the technical details from the previously created queue under *Technical Settings*, such as *Host* and *Path Prefix*.
3. In the Customizing under SAP Marketing choose *Campaigns* > *Campaign* > *Define Provider Configuration*
   Enter there the *HTTP Destination for Unsubscribing* created in the technical configuration or in transaction `SM59`.
4. Open the *Sender Profiles* app and add the *Email Address for Unsubscribing*. For more information, seeOpting-Out and Unsubscribing by Email.
   Create either a new domain or register an existing one using Amazon Route 53 for the Amazon Email sender profiles you use in the messages for your campaign execution.

14.1.2.15 Bounces and Unsubscribe for Text Messages

When you want to use unsubscribe and bounces offered by SAP Digital Interconnect, you need a connection between your SAP system and SAP Digital Interconnect.

Prerequisites

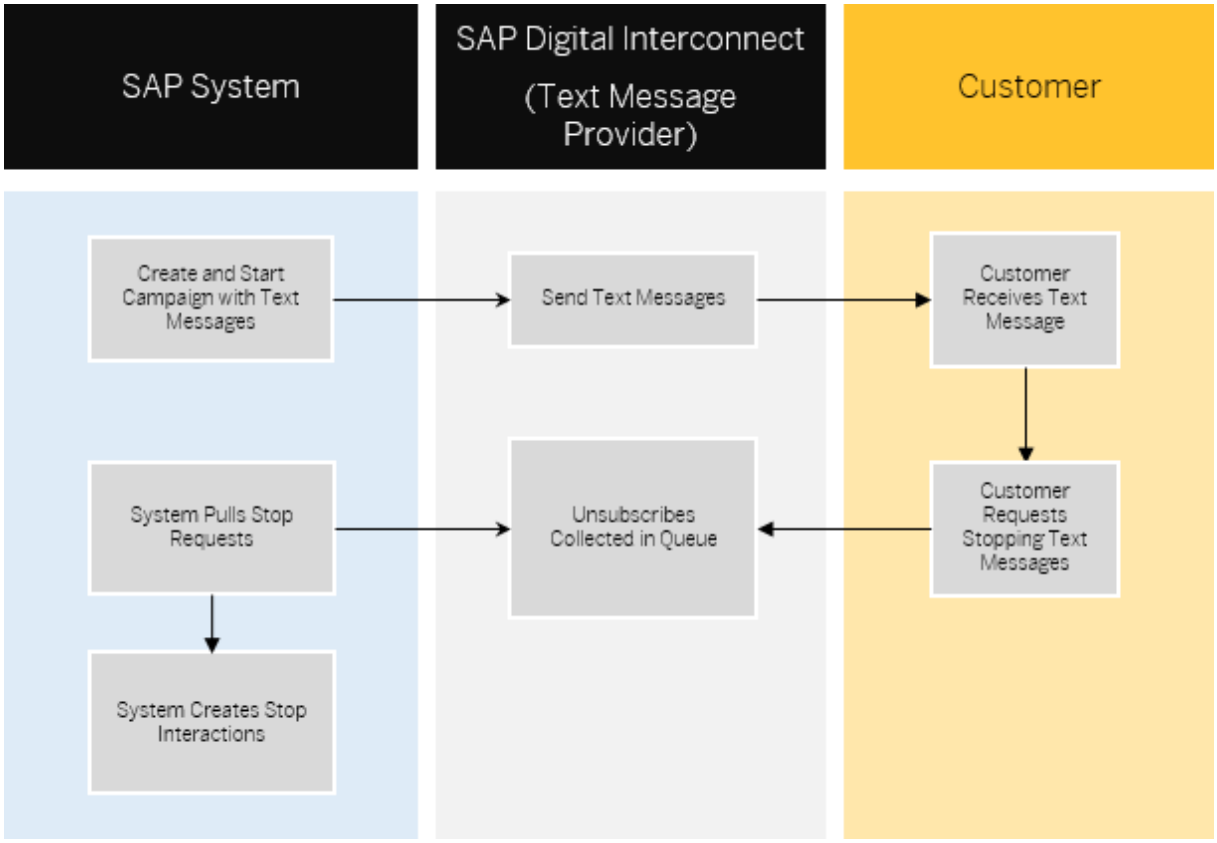
You set up the connection to SAP Digital Interconnect. For more information, see Setting Up SAP Digital Interconnect [page 110].

How It Works

After you did all the settings, the recipients of text messages can unsubscribe and you can collect bounces for text messages.

If the contact does not want to get further text messages, she or he has to send a text message with the word **STOP** as reply to the received text message. These unsubscribes can happen at any time.

The unsubscribe requests are collected on SAP Digital Interconnect's side in a queue. A background job then pulls the unsubscribe requests from SAP Digital Interconnect and creates corresponding interactions in the system. The system evaluates the interactions and updates marketing permissions for the contact.



In detail the following steps happen:

1. The marketing expert executes a text message campaign.
2. The system sends out the marketing text messages.
3. A recipient is getting the text message on the mobile.
4. The recipient unsubscribes by sending the word **`STOP`** as reply to the received text message. Optionally, the recipient can send back the word **`STOP`** plus the campaign ID to unsubscribe from a specific campaign with a specific marketing area. Prerequisite is that the marketing area separation is activated and the campaign ID is part of the sent text message, ideally using personalization attributes in the *Content Studio*.
   At the end an interaction with type `MKT_PERM_OPTOUT` and with the marketing area of this campaign is created.
5. The mobile service provider sends the text message with the unsubscribe request to SAP Digital Interconnect.
6. SAP Digital Interconnect collects unsubscribe requests and bounces in a queue.
7. SAP pulls the unsubscribe requests and bounces, and creates interactions.
8. Based on the interactions the system updates marketing permissions.

Performance Tab

To see the number of hard and soft bounces, open the corresponding campaign in the *Campaigns* app. On the *Performance* tab, you see the actuals under *Outbound*.

Related Information

SAP Live Link 365
Marketing Areas
Setting Up SAP Digital Interconnect [page 110]

14.1.2.16 Enabling Complaints for Emails

Complaints for email means that an email recipient classifies emails from dedicated senders as spam. For classifying emails as spam, the email recipient either drops the email to the spam folder of the email provider or declares the email as spam. This technology is also known as email feedback loops.

If a recipient classifies an email as spam, the email provider of the recipient sends a notification back to SAP.

If the email has been sent by a subscription-based campaign, the SAP system does an unsubscribe for the email address of the recipient/contact and for the corresponding communication category. The global opt-in for marketing permission is not changed.

If the email has been sent by a non-subscription-based campaign, the SAP system does a permission opt-out for the email address of the recipient/contact.

> **i** Note
>
> The described complaint handling is only possible if the email provider of the recipient sends a notification back to SAP, which means the provider supports email feedback loops. Not all email providers support this technology.

The email service provider you used to send the emails out of the SAP system (SAP Digital Interconnect, Amazon SES, or the generic email interface) stores the returned complaint information on a suppression list. If you use another campaign to send again an email to the recipient that sent a complaint, the email is not delivered to this recipient even if the marketing subscription or permission is still Opted-In in the SAP system. The email is not delivered by the email service provider because the email address it is part of the suppression list of the email service provider.

In case, your customer wants to be contacted again, you must remove the email address of the contact again from the suppression list:

- For SAP Digital Interconnect, you create an incident for the SAP component CEC-DI-IN and ask SAP Digital Interconnect to remove the contact again from the suppression list.
- For Amazon, log on at your AWS Management Console and remove the customer manually. For more information, see Removing an Email Address from the Amazon SES Suppression List .

Prerequisite

This function is available if you are using the email services from SAP Digital Interconnect or Amazon SES. In case you are using the generic email service provider interface, the availability of the functionality depends on the capabilities of the email service provider behind the interface.

Procedure

To enable the update of the marketing permissions or subscriptions during the processing of complaints for email, you have to create an incident for the SAP component **CEC-MKT-CPG-EXE** and request the activation for one of the following options:

- Update of marketing permission during processing of complaints for email
- Update of marketing subscription during processing of complaints for email
- Update of marketing permission and subscription during processing of complaints for email

14.1.3 Setting Up Suppression Rules

With the *Suppression Rules* application in the *Segmentation and Campaign Configuration* business group, you have the option of integrating the SAP HANA rules framework (HRF) to control whether and how often a campaign interacts with contacts. With this feature, your marketing administrators can set up rules that are checked every time a campaign is executed.

A prerequisite for using this option is an installed and configured HRF. If you did not install and configure HRF before, follow the instructions in section Scenario "HANA Rules Framework" [page 48].

For more information, see section Suppression Rules in the application help for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Application Help* > *SAP Marketing* > *SAP Marketing Applications* ▶

> **i** Note
>
> The *Suppression Rules* app will be deprecated in one of the future releases.

14.2 Setup for Content Studio

For the use of messages created in the *Content Studio* app, you are provided with several mandatory or optional settings. You find the corresponding setting descriptions in the following sections.

14.2.1 Customizing Settings

General Customizing Settings

> **i Note**
>
> SAP delivers Customizing settings in Business Configuration (BC) sets. You can use these settings, or you can create your own by copying the SAP settings, and changing them according to your requirements.

Prerequisites

Contacts are available in SAP Marketing.

> **i Note**
>
> To ensure emails and text messages are sent to a controllable predefined list of contacts in a test or development environment, you can use the whitelist (transaction `ME_WHITELIST`).

Customizing

Ensure that the following Customizing settings are available, both for trigger-based sending of campaigns by email or text message, and for target group-based sending using a preselected target group:

- *General Settings* > *Define Marketing Areas*
  - To provide users with authorizations for specific marketing areas, you have created different copies of the roles, provided by SAP, with different marketing areas assigned.
  - To manage the authorizations for marketing areas for each user, you assign the suitable role copy to each user.
  - To ensure that the authorizations for your email templates are correct, select a marketing area for each new template.
  - To ensure that the authorizations for your emails or text messages are correct, select a marketing area when you create them.
- *Segmentation* > *Define Segmentation Objects*
  Ensure that segmentation objects for trigger-based sending, and for target group-based sending are available.
- *Segmentation* > *Define Segmentation Profiles*
  Ensure that the segmentation objects you use are assigned to a segmentation profile.
  Check that the indicator *Obsolete* has not been selected for the segmentation profile *SAP_CE_INTERACTION* provided.
- *Campaigns* > *Content Studio* > *Manage Content Types*
  Deactivate predefined content types that are not relevant. Once you have done so, they are no longer displayed during creation and in the search results list in the Content Studio. You can also change the order of the quick filter tiles and the value help when creating new content.

> **Note**
>
> By default, the predefined content type *LINE Message* (`LIN`) is disabled. If you need this content type, remove the corresponding flag from the checkbox.

14.2.2 Setting up Display of Campaign Emails in a Browser

If you want the recipients of your email campaigns to be able to display their received emails in their mail clients and also in a browser, proceed as follows:

- In Customizing for SAP Marketing (transaction `SPRO`) under *Campaigns* > *Content Studio* > *Set Up View Email in Browser Link*, provide the URL to your deployed servlet to get the *Insert View in Browser* link on the user interface.
- Create your own servlet. For a detailed description of how to create such a servlet, see API based "View in Browser" with SAP Marketing.

14.3 Integrations

The Campaign Management in SAP Marketing can be integrated with various internal or external systems or services. You can find a description of available integrations in the Integration Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op > *Integration*

The setup of the following integrations are included in the integration guide:

Setting up Integration with Facebook and Instagram

You can plan and create campaigns that are handed over to Facebook and Instragram for execution. Optionally, you can define and transfer a target group to be addressed at Facebook. From Facebook, actual spend and campaign success data is retrieved and made available for analysis in SAP Marketing.

For more information, see Social Campaigns Using Facebook and Instagram.

Setting up External Campaign Integration

You can create campaigns on generic external systems, which are implementing the interfaces for external campaigns. Alternatively, you can use a middleware such as SAP Cloud Platform Integration service to map the SAP Marketing interfaces to the interfaces of the external system (such as Twitter).

For more information, see Setting Up External Campaign Execution.

Creating and Executing WeChat Campaigns

You can integrate WeChat with your system to create and carry out WeChat campaigns.

For more information, see WeChat Integration.

Setting up Forms

You are provided with the *Forms* content type in the *Content Studio* application. This type allows you to design forms to collect contact and marketing permission data.

For more information, see Custom Form Integration.

Setting up the Integration of Digital Asset Management Systems

Digital asset management (DAM) systems provide catalogs of digital images, videos, documents, music etc. Digital assets can be searched easily by keywords. With the integration of DAM systems you can directly access images for use in static image links in an email. SAP delivers standard settings for the following DAM systems:

- SAP Product Content Management
- SAP Digital Asset Management by OpenText

For more information, see Integration with Digital Asset Management Systems.

14.3.1 Setting up Integration with Google Ads Campaigns (Optional)

The integration of SAP Marketing with Google Ads provides you with the following options:

- You can create marketing campaigns that correspond to a campaign in Google Ads using the *Google Ads Campaign* pushbutton in the *Select Campaign Type* dialog. This dialog opens once you clicked the *Create* pushbutton on the *Campaign* overview screen in the *Campaigns* app.
- From the *Campaign* overview screen, you can open a Google Ads campaign by selecting it in the overview list, and display key performance indicators (KPIs) either retrieved from Google Ads or manually uploaded.
- When you open a target group in the *Target Groups* app, on the *Campaigns* tab of the target group details screen, you can open a Google Ads campaign by selecting it from the list.
- From the *Marketing Calendar* app (in the *Campaign Management* or the *Spend Management* business groups), you can open a Google Ads campaign by selecting it in the campaign calendar view.
- From the *Import Data* app (in the *Import Data* business group), you can upload campaign KPIs using the *Campaign Success* option.

Before you start with the configuration for the Google Ads integration, carry out the following steps in Customizing for SAP Marketing (transaction SPRO):

- Under *General Settings* > *Define Media Types*:

Media Type	Media Type Description	SAPUI5 Icon Name
PAID_SEARCH	Paid Search	search

Upload an image for the entry above to be shown on the *Campaign Listing* and the *Campaign Overview* screens using the *Manage Images* app.

- Under *Contacts and Profiles* > *Interactions* > *Define Communication Media*:

Communication Medium	Communication Medium Description	Media Type ID
GOOGLE_ADS	Google Ads	PAID_SEARCH

- Under *Campaigns* > *Campaign* > *Define Campaign Categories and Actions* in the *Define Campaign Categories* view:

Category ID	Category Name	Category Tooltip	Is Active	Perm. Hldng	Process Type
PGS	Google Ads	Google Ads campaigns for advertising on Google advertising networks (Search, Display and Video)	Yes	Check Marketing Permission	Google Ads

- Under *Campaigns* > *Campaign* > *Define Campaign Categories and Actions* in the *Define Campaign Actions* view:

Action ID	Action Name	Class/Interface
PS_CUSTOM_AUDIENCE	Create Google Ads Custom Audience	CL_CUAN_MO_TG_TRANSFER_PS

- Keep the PGS category ID selected in the *Define Campaign Categories* view. Under *Campaigns* > *Campaign* > *Define Campaign Categories and Actions* in the *Assign Actions to Categories* view for the PGS category ID:

Action ID	Action Name
PS_CUSTOM_AUDIENCE	Create Google Ads Custom Audience

To access the *Campaign Management* business group and the *Paid Search* application, the user must be assigned a copy of the following roles:

- `SAP_CEI_CPM_FLP` (business catalog role; no copy required - you can assign the delivered standard role)
- `SAP_CEI_TG_INI` (back-end role; included in composite role `SAP_MARKETING_DATA_MANAGEMENT`)
- `SAP_CEI_HOME` (for personalization purposes)

For more information, see Introduction on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Integration* > *View All* ▶

Uploading Data for Google Ads Campaign KPIs

KPIs for Google Ads campaigns are retrieved automatically from Google via the scheduled background job `SAP_CUAN_PAID_SEARCH_KPI` . This job is scheduled to run on a regular basis to always have the most up to date KPIs for your Google Ads campaigns.

You can also manually upload campaign success KPIs. You upload campaign success data from a comma-separated value (CSV) file using the *Import Data* application in the *Import Data* business group.

For more information, see the expandable subsection *Campaign Success* in section*Object Types You Can Upload* in chapter Import Data (CSV) of the application help for SAP Marketing on SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Application Help* > *SAP Marketing* > *SAP Marketing Applications* > *Import Data* > *Import Data (CSV)* ▶

To access the *Import Data* application, the user must be assigned a copy of the following role:

- `SAP_MARKETING_BUS_ADMIN_USER`

To upload Google Ads campaign KPIs, the user must have the following authorization object assignments:

Authorization Object	Object Name (`HPA_OBJ`)	Activity (`ACTVT`)
`HPA_OBJECT`	`CUAN_INITIATIVE`	**`02`** (Change)

Authorization Object	Object Name (`HPA_OBJ`)	Action Name (`HPA_ACTION`)	Activity (`ACTVT`)
`HPA_ACTION`	`CUAN_INITIATIVE`	`UPDATE_EXTERNAL_REPORTING_DATA`	**`16`** (Execute)

For more information, see the Security Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Security* ▶

14.3.2 Setting up Integration with SAP CRM (Optional)

Enhanced integration of SAP Marketing with SAP CRM offers the following options:

- In the *Campaigns* app in business group *Campaign Management*, you can use an action to create leads, opportunities, tasks, activities, or call lists in *SAP CRM*.
- For a campaign, you can display success measures that are based on the leads, opportunities, tasks, activities, or call lists created in SAP CRM.
- In the *Marketing Executive Dashboard*, the leads created in SAP CRM are displayed as key figures.

For more information, see document Integrating SAP Marketing with SAP CRM.

14.3.3 Setting Up Call Center Integration (Optional)

SAP Marketing provides you with the option to integrate call centers in your campaign execution.

You have the following integration options:

- Integration with SAP Cloud for Customer (see Setting Up Call Center Integration with SAP Cloud for Customer [page 163])
- Integration with *SAP CRM Interaction Center* (see Setting Up the SAP CRM Interaction Center Integration [page 164])

14.3.3.1 Setting Up Call Center Integration with SAP Cloud for Customer

> **i Note**
>
> - As a prerequisite for the call center integration with SAP Cloud for Customer, you must have carried out the steps related to C4C integration described in section Scenario "Lead Management with Cloud for Customer Integration" [page 52].
> - If SAP Marketing is integrated with SAP CRM or SAP ERP, these systems must also be connected to the SAP Cloud for Customer systems. This ensures that the replication of customers and business transactions, such as leads or opportunities is consistent.

You are provided with the option to trigger SAP Cloud for Customer call qualifications to the SAP Cloud for Customer system directly from a campaign in your SAP Marketing system. A standard action for campaigns is available to do so. These call qualifications are handled as marketing leads in SAP Cloud for Customer.

Assigning Standard Action to Campaign Category

To activate this function, you must assign the standard action `CALL_QUALIFICATION` (*Trigger C4C Call Qualification*) to a campaign category in Customizing for SAP Marketing (transaction `SPRO`) under

Campaigns > *Campaign* > *Define Campaign Categories and Actions*. This is already assigned to the campaign category *CIC - Call Center* in the standard SAP system or you assign the action `CALL_QUALIFICATION` to the required category as follows:

1. Select the required category to which you want to assign the action `CALL_QUALIFICATION` in the *Define Campaign Categories* view.
2. Choose the *Assign Actions to Categories* view.
3. Choose *New Entries*.
4. Choose the action `CALL_QUALIFICATION` from the value help for the *Action ID* field and confirm your entry
5. Enter any required text in the *Action Button Tooltip* and *Button Tooltip* fields if you want to override the action button text and button tooltip that is specified directly in the action. This override is valid in the context of this category/action relationship only.

As a result, the new action is available for new campaigns with this category.

Check Permission to Contact in SAP Marketing

According to the Customizing settings you have made, when the action to create the call list is executed in SAP Marketing, the system checks whether permission to make contact by telephone is available. Check this setting in Customizing for SAP Marketing under *Campaigns* > *Campaign* > *Define Campaign Categories and Actions*. Choose *Define Campaign Categories* followed by the category `CIC`. If the value *Ignore Marketing Permission* has not been selected for the *Category Type*, the system checks whether permission to make contact is available when the action to create the leads (`CALL_QUALIFICATION`) is executed.

14.3.3.2 Setting Up the SAP CRM Interaction Center Integration

Use

To set up the integration, perform the configuration settings that are described in sectionSetting up Integration with SAP CRM (Optional) [page 163].

Customizing

The most important Customizing settings are delivered with the standard system Customizing for SAP Marketing and SAP CRM.

Using Your Own Transaction Type in SAP CRM

If you do not want to use the default transaction type in SAP CRM, which is found in the standard system (`PCHC`), in Customizing for SAP Marketing under *General Settings* > *Integration* > *Specify the SAP CRM*

Business Transaction Type you must assign your own transaction type to the transaction category `BUS126_CL`.

Set up the Inbox Search for the New Main Category for the Agent in SAP CRM

Set up the inbox search for the new main category for the agent as follows:

1. In Customizing for *Customer Relationship Management* under *Interaction Center WebClient* *Agent Inbox* *Inbox Search Definitions* *Define Item Types for Searches*, create a new entry with the item type *Inbox One Order Item* and the transaction type `PCHC` as the main category or use your own transaction type.
2. Determine the profile value for the role `IC_AGENT` and the function profile `IC_INBOX` in Customizing for *Customer Relationship Management* under *UI Framework* *Business Roles*. An example of a possible value is `DEFAULT - 1`.
3. Assign the transaction type `PCHC` or your own transaction type to the inbox profile determined previously (such as `DEFAULT - 1`) in Customizing for *Customer Relationship Management* under *Interaction Center WebClient* *Agent-Inbox* *Define Inbox Profiles*. You do this in the dialog structure *Assign Main Categories*.

Displaying Information from SAP Marketing in SAP CRM

The Transaction Launcher is used to make information from SAP Marketing available to the agent in SAP CRM. Navigation can take place directly to the SAP Marketing system or by using the SAP Web Dispatcher. For more information about setting up the SAP Web Dispatcher to do this, see SAP Note 2140478.

The following data is provided:

- Customer and contact information
  To ensure that the Interaction Center agent can view information from SAP Marketing about the customer and the contact in the WebClient UI using the navigation bar in SAP CRM before making a planned call, note the following:
  - Customer and contact data was replicated from SAP Marketing to SAP CRM.
  - Set up provision of information in the SAP CRM navigation bar. For more information about the provision of information for the role `IC_AGENT`, see SAP Note 2135184. For more information about the provision of information for roles other than the role `IC_AGENT`, see SAP Note 2146974.
  - If you are using SAP CRM EHP3, you must import SP09 as a minimum.
- Information about the campaign from SAP Marketing
  The Interaction Center agent (user role `IC_AGENT`) can use a link in the header data for the planned call activity to view the referenced campaign from SAP Marketing.
  Note that you must import SP09 as a minimum if you are using SAP CRM EHP3.
  For more information about the provision of this information for the other user roles, see SAP Note 2146978.

Provision of Product Recommendations in SAP CRM

If in SAP CRM, you want to display alerts with product recommendations that are based on recommendation scenarios from SAP Marketing, note the following:

- Since no preconfigured alerts are supplied, define these in the role for the Interaction Center manager in the Alert Editor and assign them using rule policies. A new rule policy must be available, which is used to call automatic actions as soon as a defined condition is met. For more information about creating the rule policy for the product recommendation, see SAP Note 2140606.

- Data replication for products from SAP Marketing to SAP CRM has been configured. Note that the system only displays products that also exist in SAP CRM.
- If you are using SAP CRM EHP3, you must import SP09 as a minimum.

Check Permission to Contact in SAP Marketing

According to your Customizing settings, when the action to create the call list is executed in SAP Marketing ,the system checks whether permission to make contact by telephone is available. Check this setting in Customizing for SAP Marketing under *Campaigns* > *Campaign* > *Define Campaign Categories and Actions*. Choose *Define Campaign Categories* followed by the category `CIC`. If the value *Ignore Marketing Permission* has not been selected for the *Category Type*, the system checks whether permission to make contact is available when the action to create the call list (`CRM_CALL_LIST`) is executed.

View Planned Call to a Contact in SAP Marketing

You can see whether a planned call exists in SAP CRM in the factsheet for the contact in SAP Marketing for every business partner in a target group.

If you want to display outbound calls on a different tile, configure this in Customizing for SAP Marketing under *Contacts and Profiles* > *Interactions* > *Assign Interaction Types and Communication Media to Channels*.

View Success of Campaign in SAP Marketing

If you want to measure the success of the campaign, create a new interaction profile in Customizing for SAP Marketing under *Campaigns* > *Campaign* > *Define Interaction Profiles*.

Now assign the interaction profile to the campaign. You do this in Customizing for SAP Marketing under *Campaigns* > *Campaign* > *Define Campaign Categories and Actions* in the dialog structure *Define Campaign Categories* in the field *Interaction Profile*.

14.4 Configuring the Marketing Calendar

If you have not already carried out this step as a part of *Configuring Planning*, configure the marketing calendar as described in Setting up "Marketing Calendar" [page 102].

14.5 Configuring the Journey Tab in Campaigns

Marketing experts can analyze the customer journeys for a campaign to gain valuable insights into which interactions either lead customers to or deter customers from a purchase, for example, or any other key event you choose to analyze.

To enable the *Journey* tab on the *Campaign* factsheet, you must set up events in the *Customer Journey Events* application within the *Business Administration* business group (see Setting up Customer Journey Events [page 73]).

15 Configuring WeChat Integration

The WeChat integration of SAP Marketing contains the following functions:

- Synchronization of WeChat followers and interactions to SAP Marketing
- Segmentation of WeChat followers
- Creation and execution of WeChat campaigns through SAP Marketing
- Analytical report about the acquisition of WeChat followers
- Analytical report about WeChat interactions
- Analytical report for WeChat campaigns carried out through Shake Nearby

For detailed information, see section WeChat Integration in the Integration Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Integration* ▶

16 Configuring LINE Integration

With the integration of the instant communications service LINE, you can synchronize followers of your LINE accounts as well as follower interactions to SAP Marketing. In addition, you can create and carry out LINE campaigns through SAP Marketing. Analytical reports about LINE followers and interactions are available as well.

> **i** Note
>
> The LINE integration supports LINE@ accounts only.

For detailed information about the LINE integration, see section LINE Integration in the Integration Guide for SAP Marketing on the SAP Help Portal at:

https://help.sap.com/mkt-op ▶ *Integration* ▶

17 Frequently Asked Questions

- **Can I install SAP Marketing on any database and access SAP HANA using a secondary database connection?**
  SAP Marketing runs on an AS ABAP system with SAP HANA database as primary and only database. During the installation of SAP Marketing SAP HANA content is unpacked to the SAP HANA database. This content is used for accessing SAP ERP, SAP CRM as well asSAP Marketing data.
- **How is the SAP ERP and SAP CRM data accessed?**
  SAP ERP and SAP CRM data is stored in separate database schemas in the SAP HANA database. SAP Marketing delivers SAP HANA information models that join together data from these separate database schemas. The application accesses the data through these SAP HANA models. As the database schema name is unique in your system, a schema mapping from SAP's authoring schema to your schema name is defined during the technical configuration of SAP Marketing.
  For more information about SAP HANA schema mapping, see the SAP HANA Modeling Guide (SAP HANA Studio) on the SAP Help Portal at:
  http://help.sap.com/hana_platform ▶ *Development* ▶ *View All* ▶
- **What is the name of the database schema of my SAP ERP and SAP CRM data?**
  If you replicate data (see Scenario B: Hub-Deployment with Separate SAP HANA System [page 14]) through SAP LT replication server the name of the SAP HANA database schema is your SAP LT configuration name. If you run deployment scenario C, *Hub-Deployment with Shared SAP HANA System of SAP Business Suite*, your database schema name is `SAP<SID>` while `<SID>` is the system ID of your SAP ERP or SAP CRM system.
- **Do I have to set up HTTPS?**
  You have to set up HTTPS as SAP Marketing does not allow HTTP calls.
- **Do I have to set up a Web Dispatcher?**
  You have to set up a Web Dispatcher as SAP Marketing integrates ABAP and SAP HANA
- **Do I need to set up a BW Client? Do I have to set up the BW Client for all solutions? Can I use a BW client in another system?**
  You have to set up a BW client in your SAP Marketing system regardless of the SAP Marketing solution you have licensed. The application uses the operational data provisioning (ODP) to directly access SAP HANA information models. For ODP, you only need to perform minimal configuration of the BW in your application system. You do not need to set up a Data Warehouse. Replication of the data to a BW system is not necessary.

18 SAP Notes for Installation and Upgrade

If there is additional information to the installation process as described in this guide, you find the new information in the following SAP Note or SAP Notes.

Make sure that you have the current version of each SAP Note, which you can find on the SAP Service Marketplace at http://support.sap.com/notes.

SAP Note Number	Title	Description
Release Information Note 1885803	RIN SAP Marketing	Contains information and references in the context of applying SAP Marketing
Note 2076331	Follow Up Tasks after System Copy	Contains information about the actions to be carried out after system copy
Note 2072589	Installing and Configuring SAP Fiori Apps for SAP CEI on a central Fiori Frontend Server	Contains information about the installation and configuration of SAP Fiori apps for SAP Marketing on a central SAP Fiori front-end server

Final Implementation of SAP Notes

The Release Information Note (RIN) is the central note containing general installation/upgrade information on SAP Marketing.

Make sure that you have implemented all notes that are listed in the RIN. For more information about the sequence of the note implementation, see SAP Notes for Installation [page 9].

19 Appendix

19.1 Technical Configuration - Expert Mode

If you are not able to use the technical configuration cockpit (Using the Technical Configuration Cockpit [page 41]), you can use the *Technical Configuration Expert Mode* to carry out the steps in the back end.

To use the expert mode, call up transaction `STC01` and execute task list `CUAN_BASE_CONFIG` (which corresponds to the *Essentials* scenario in the technical configuration wizard). To call the parameter screen, select the last task in the list and then click on the *Change Parameters* icon (column *Parameter*).

Afterwards, execute the following task lists if required:

- `CUAN_SETUP_ERPCONTENT` corresponding to the *ERP Integration* scenario in the technical configuration wizard
- `CUAN_SETUP_CRMCONTENT` corresponding to the *CRM Integration* scenario in the technical configuration wizard
- `CUAN_SETUP_HRF`corresponding to the *HANA Rules Framework* scenario in the technical configuration wizard
- `CUAN_SETUP_CMO_DASHBOARD` corresponding to the *Marketing Executive Dashboard* scenario in the technical configuration wizard
- `CUAN_SETUP_CA` corresponding to the *Campaign Management* scenario in the technical configuration wizard

For more information about the parameters to be provided within the different task lists, see the descriptions for every scenario in section Section "Scenarios" [page 43].

19.2 Replicated Tables in SAP Marketing

If you replicate data from SAP ERP and/or SAP CRM into SAP Marketing, the following tables are replicated via SAP Landscape Transformation Replication Server:

SAP ERP Tables

(A - M)	(N - TCURV)	(TCURX - TVKO)	(TVKOT - W)
ADCP	NDBSMATG16	TCURX	TVKOT
ADR2	PA0105	TKA01	TVLS
ADR3	PRPS	TKEB	TVLST
ADR6	T000	TKEBB	TVM1
ADRC	T001	TKEBC	TVM1T
ADRP	T001W	TKEBT	TVM2
ADRU	T005	TKEF	TVM2T
BKPF	T005N	TKEFE	TVM3
BSEG	T005S	TKUKL	TVM3T
BUT000	T005T	TKUKT	TVM4
BUT021_FS	T005U	TPFK	TVM4T
BUT050	T006	TPFKT	TVM5
BUT051	T006A	TPTMT	TVM5T
BUT100	T009	TSAB	TVMS
COBK	T016	TSABT	TVTW
COEP	T016T	TSAD12	TVTWT
COOI	T023	TSAD12T	TVV1
CRMKUNNR	T023T	TSAD2	TVV1T
CRMPARNR	T077D	TSAD2T	TVV2
CVI_CUST_LINK	T077X	TSAD3	TVV2T
DD02L	T134M	TSAD3T	TVV3
DD02T	T151	TSAD4	TVV3T
DD04T	T151T	TSADV	TVV4
DD07L	T171	TSADVT	TVV4T
DD07T	T171T	TSPA	TVV5
FPLA	T179	TSPAT	TVV5T
HRP1001	T179T	TTZZ	VAKGU

(A - M)	(N - TCURV)	(TCURX - TVKO)	(TVKOT - W)
HRP1222	T685	TTZZT	VBAK
HRT1222	T685T	TVAG	VBAP
KNA1	TB003	TVAGT	VBEP
KNB1	TB910	TVAK	VBFA
KNVK	TB911	TVAKT	VBKA
KNVP	TB912	TVBUR	VBKD
KNVV	TB913	TVBVK	VBKPA
KONV	TBRC	TVFKT	VBRK
LIKP	TBRCT	TVFS	VBRP
LIPS	TCURC	TVFST	VBUK
MAKT	TCURF	TVGRT	VBUP
MARA	TCURN	TVKBT	VEDA
MARC	TCURR	TVKBZ	WRF_BRANDS
MARD	TCURT	TVKGR	
MBEW	TCURV	TVKO	

SAP CRM Tables

(A - CRMC_CANCREASON)	(CRMC_CANCREASONT - CRMC_PH)	(CRMC_PR - CRMM)	(D - T)
ADCP	CRMC_CANCREASONT	CRMC_PROC_TYPE	DD02L
ADR2	CRMC_CHM_PROG_T	CRMC_PROC_TYPE_T	DD02T
ADR3	CRMC_CHM_STATU_T	CRMC_SOURCE	DD07L
ADR6	CRMC_CHM_TYPE_T	CRMC_SOURCE_T	DD07T
ADRC	CRMC_CON_PHASE_T	CRMD_BRELVONAE	HRP1000
ADRP	CRMC_CUSTGRP1	CRMD_CHM_CLASS	HRP1001
AUSP	CRMC_CUSTGRP2	CRMD_DHR_ACTIV	HRP1222
BUT000	CRMC_CUSTGRP3	CRMD_DHR_HEADOPP	HRT1222
BUT020	CRMC_CUSTGRP4	CRMD_DHR_HSLSCON	QPCT
BUT021_FS	CRMC_CUSTGRP5	CRMD_DHR_HSLSORD	QPGT
BUT050	CRMC_CYCLE_T	CRMD_DHR_HSLSQUO	SCPRIO
BUT051	CRMC_DISTCHAN	CRMD_DHR_ISLSCON	SCPRIOT
BUT052	CRMC_DISTCHAN_T	CRMD_DHR_ISLSORD	T000
BUT100	CRMC_DIVISION	CRMD_DHR_ISLSQUO	T001
CABN	CRMC_DIVISION_T	CRMD_DHR_ITEMOPP	T002
CABNT	CRMC_ERMS_CAT_CA	CRMD_DHR_LEAD	T002T
CAWN	CRMC_ERMS_CAT_CD	CRMD_IM_ML_HEAD	T005
CAWNT	CRMC_INDUSTRY	CRMD_IM_ML_ITEM	T005T
CGPL_HIERARCHY	CRMC_INDUSTRY_T	CRMD_MKTCA_CT_IN	T005U
CGPL_PRIO	CRMC_LEAD_QL	CRMD_MKTHV_MC	T006
CGPL_PRIOTX	CRMC_LEAD_QL_T	CRMD_MKTHV_MC_TC	T006A
CGPL_PROJECT	CRMC_LEAD_TYPE	CRMD_MKTPL_TGGRP	T009
CGPL_TASK	CRMC_LEAD_TYPE_T	CRMD_MKTPL_TODO	TB002
CGPL_TEXT	CRMC_MKP_CHAN	CRMD_MKTTG_TG_EA	TB003
COMC_PR_TYPE_T	CRMC_MKTPL_AUTHG	CRMD_MKTTG_TG_H	TB003T
COMM_CATEGORY	CRMC_MKTPL_AUTHT	CRMD_MKTTG_TG_I	TB004
COMM_CATEGORYT	CRMC_MKTPL_CHAN	CRMD_MKTTG_TG_I0	TB004T
COMM_HIERARCHY	CRMC_MKTPL_CHANT	CRMD_MKTTG_TG_I1	TB024
COMM_HIERARCHYT	CRMC_MKTPL_CTYPE	CRMD_MKTTG_TG_I2	TB027T
COMM_IL_PRDBP	CRMC_MKTPL_CTYPT	CRMD_MKTTG_TG_I3	TB028T
COMM_PR_FRG_ROD	CRMC_MKTPL_OBJTT	CRMD_MKTTG_TG_I4	TB038A

(A - CRMC_CANCREASON)	(CRMC_CANCREASONT - CRMC_PH)	(CRMC_PR - CRMM)	(D - T)
COMM_PRODUCT	CRMC_MKTPL_OBJTV	CRMD_MKTTG_TG_I5	TB910
COMM_PRPRDCATR	CRMC_MKTPL_TACTS	CRMD_ORDER_INDEX	TB911
COMM_PRSHTEXT	CRMC_MKTPL_TACTT	CRMD_ORDERADM_H	TB912
CRM_JEST	CRMC_MKTPL_TDCAT	CRMD_ORDERADM_I	TB913
CRM_MKTPL_ATTR	CRMC_MKTPL_TODO	CRMD_PRICING_I	TCURC
CRM_MKTPL_OBJTXT	CRMC_MKTPL_TODOT	CRMM_BUT_CONTNO	TCURF
CRM_MKTPL_OBJTYP	CRMC_MKTTG_OT_H	CRMM_BUT_CUSTNO	TCURN
CRM_STACOM_ATTR	CRMC_OPPIMPOR	CRMM_BUT_FRG0041	TCURR
CRM_STACOM_TEXT	CRMC_OPPIMPOR_T	CRMM_BUT_FRG0080	TCURT
CRMC_ACT_CAT_ASS	CRMC_OPPT_TYPE	CRMM_BUT_FRG0100	TCURV
CRMC_ACT_CAT_T	CRMC_OPPT_TYPE_T	CRMM_BUT_LNK0011	TCURX
CRMC_ACT_CATEGOR	CRMC_PARTNER_FCT	CRMM_BUT_MKTPERM	TJ02T
CRMC_BUPA_CBBL	CRMC_PARTNER_FT	CRMM_BUT_SET0010	TJ30
CRMC_BUPA_CDBL	CRMC_PARTY	CRMM_TERRITORY	TJ30T
CRMC_BUPA_COBL	CRMC_PARTY_T	CRMM_TERRITORY_T	TSAD3
CRMC_CANCREASON	CRMC_PHASE_T	CRMM_TERRITORY_V	TSAD3T

Important Disclaimers and Legal Information

Hyperlinks

Some links are classified by an icon and/or a mouseover text. These links provide additional information.
About the icons:

- Links with the icon : You are entering a Web site that is not hosted by SAP. By using such links, you agree (unless expressly stated otherwise in your agreements with SAP) to this:
  - The content of the linked-to site is not SAP documentation. You may not infer any product claims against SAP based on this information.
  - SAP does not agree or disagree with the content on the linked-to site, nor does SAP warrant the availability and correctness. SAP shall not be liable for any damages caused by the use of such content unless damages have been caused by SAP's gross negligence or willful misconduct.
- Links with the icon : You are leaving the documentation for that particular SAP product or service and are entering a SAP-hosted Web site. By using such links, you agree that (unless expressly stated otherwise in your agreements with SAP) you may not infer any product claims against SAP based on this information.

Videos Hosted on External Platforms

Some videos may point to third-party video hosting platforms. SAP cannot guarantee the future availability of videos stored on these platforms. Furthermore, any advertisements or other content hosted on these platforms (for example, suggested videos or by navigating to other videos hosted on the same site), are not within the control or responsibility of SAP.

Beta and Other Experimental Features

Experimental features are not part of the officially delivered scope that SAP guarantees for future releases. This means that experimental features may be changed by SAP at any time for any reason without notice. Experimental features are not for productive use. You may not demonstrate, test, examine, evaluate or otherwise use the experimental features in a live operating environment or with data that has not been sufficiently backed up.
The purpose of experimental features is to get feedback early on, allowing customers and partners to influence the future product accordingly. By providing your feedback (e.g. in the SAP Community), you accept that intellectual property rights of the contributions or derivative works shall remain the exclusive property of SAP.

Example Code

Any software coding and/or code snippets are examples. They are not for productive use. The example code is only intended to better explain and visualize the syntax and phrasing rules. SAP does not warrant the correctness and completeness of the example code. SAP shall not be liable for errors or damages caused by the use of example code unless damages have been caused by SAP's gross negligence or willful misconduct.

Bias-Free Language

SAP supports a culture of diversity and inclusion. Whenever possible, we use unbiased language in our documentation to refer to people of all cultures, ethnicities, genders, and abilities.

www.sap.com/contactsap

THE BEST RUN SAP