Upgrade Guide | PUBLIC
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Upgrade and Update Guide - SAP CRM 7.0 EHP4
Valid for ABAP

THE BEST RUN

Content

1 Document History

Document History

Version	Date	Description
1.0	2016-01-20	First Version
1.1	2016-03-04	Navigation path to Software Logistics Toolset (SL Toolset) documentation changed.
1.2	2016-05-04	SAP Help Portal reference for SAP Fiori Apps updated. ABAP only: Information about the renaming and deletion of some objects added under *Follow-Up Activities for Customer Enhancements and Important SAP Notes*.
1.3	2017-05-05	Navigation path to Software Update Manager (SUM) guide.
1.4	2019-10-09	Document clasification updated.
1.5	2022-05-05	Supported Source Releases updated.

2 Getting Started

This section of the guide contains important information that you need to read before starting your update or upgrade process.

2.1 Essential Information: Process and Documentation Overview

You are currently reading the *Upgrade and Update Guide – SAP Customer Relationship Management 7.0 Including SAP Enhancement Package 4 (ABAP)*. This guide only contains information specific to SAP CRM, but you need additional information to enable you to perform your upgrade correctly.

> **i Note**
>
> Specifically, you need to use the following guide in parallel to the *Upgrade and Update Guide for SAP Customer Relationship Management 7.0 Including SAP Enhancement Package 4 (ABAP)*: *Update Guide - Update of SAP Systems Using Software Update Manager <latest version>*.
>
> You have to use Software Update Manager (SUM) guide in parallel with this application-specific guide, because the two types of guide complement each other — the SUM guide contains the overall process, tool, operating system- and database-specific information while this guide contains the application-specific information.
>
> You find the SUM guide using the SAP NetWeaver Guide Finder under http://help.sap.com/nw75 *Installation and Upgrade Information* > *SAP NetWeaver Guide Finder*.

The *Master Guide – SAP Customer Relationship Management 7.0 Including SAP Enhancement Package 4* contains a section *Main Implementation Processes and Related Documentation* with the following subsections containing vital information:

- *Planning for Installation, Update, and Upgrade Processes*
  Contains a list of topics (including documentation references) you need to consider when you are planning your implementation project.
- *Implementation of the Installation Process*
  Provides a step-by-step overview of the installation process (new installation of an SAP system including an enhancement package), with reference to the required tools and associated documentation.
- *Implementation of the Update Process*
  Provides a step-by-step overview of the update process (installation of an enhancement package on an existing SAP system), with reference to the required tools and associated documentation.
- *Implementation of the Upgrade Process*
  Provides a step-by-step overview of the upgrade process (upgrade to an SAP system including an enhancement package), with reference to the required tools and associated documentation.

> **i Note**
>
> Make sure that you collect all the information provided in this overview before starting your installation, upgrade or update project.

Make sure that you have downloaded the latest version of the *Master Guide – SAP Customer Relationship Management 7.0 Including SAP Enhancement Package 4* at SAPhttps://help.sap.com/viewer/product/SAP_CUSTOMER_RELATIONSHIP_MANAGEMENT/7.0.4.latest.

2.2 SAP Fiori Apps

For information regarding SAP Fiori for SAP CRM, see SAP Help Portal at http://help.sap.com/fiori. Choose *SAP Fiori for SAP Business Suite* › *SAP Fiori for SAP CRM*.

As of SAP enhancement package 3 for SAP CRM, the backend component (`GBX02CRM 700`) for SAP Fiori OData services is no longer required. If you have implemented Fiori apps with SAP CRM 7.0, including SAP enhancement packages 1 and 2, and you update to SAP enhancement package 4, the component `GBX02CRM 700` is automatically retrofitted into the component `SAP CRM ABAP 7.14` (which now contains the OData services). You do not need to uninstall `GBX02CRM 700`.

2.3 Important SAP Notes

SAP Note Number	Description
2171335	EHP4 for SAP CRM 7.0 SP stacks - Release & Information Note
837413	Support Package Levels for SAP CRM Installations and Upgrades
1886834	Business Function for Service Configuration HR
1570869	Adaption of Enhancements After Support Package or Release Upgrade
830596	Additional info about upgrading to SAP Basis 700 and 701 with WFM Core
1514967	Central SAP Note for SAP In-Memory Appliance (SAP HANA)
1514966	Sizing Information for the SAP In-Memory Database (SAP HANA)

SAP Note Number	Description
1793345	Business Suite Specific Sizing Information for the SAP In-Memory Database (SAP HANA)
1681092	Support Information and Special Considerations for Multiple SAP HANA Databases on a Single SAP HANA Appliance
1826100	Business Suite Specific Support Information and Special Considerations for Multiple SAP HANA Databases on a Single SAP HANA Appliance
1785057	Recommendations for Migrating Suite Systems to SAP HANA
1794297	Information About When Using Secondary Indexes is Beneficial
1766587	Information About how to Prevent Short Dumps During Preprocessing
1768517	Information About how to Prevent Short Dumps During Preprocessing
1563579	Central Release Note for Software Logistics Toolset 1.0
2215543	Renaming/deletion of objects in CRM 7.0 EhP4

2.4 Accessing Documentation

Use

Before, during and after the update, you require the SAP online documentation.

There are different ways to access the online documentation:

- SAP NetWeaver Library on SAP Help Portal
  You can access the documentation for all maintained product releases on SAP Help Portal.
- Local installation of the SAP NetWeaver Library
  Before the update, make sure that you can read the documentation DVD offline. After the update, you need to install the documentation for the target release.

Procedure

SAP NetWeaver Library on SAP Help Portal

Follow the applicable path to the SAP NetWeaver Library on SAP Help Portal:

Release	Path
SAP NetWeaver 7.4	http://help.sap.com/nw74 Application Help

Local Installation of the SAP NetWeaver Library

Before and during the update, you have to read the online documentation for the target release on the DVD.

→ Recommendation

If there is a Support Package available for the documentation, use the documentation version on SAP Help Portal.

2.5 Naming Conventions

SAP CRM Server System and SAP System

In this document, the term "SAP system " is the same as "SAP CRM Server system". SAP is also used as a synonym for "SAP CRM Server " in terms such as "SAP start profile" or "SAP system language".

Usage Type and Product Instance

As of software provisioning manager 1.0 SP07 (SL Toolset 1.0 SP12), the term "product instance" replaces the term "usage type" for SAP systems based on SAP NetWeaver 7.3 including enhancement package 1 and higher. Note that there is no terminology change for older releases and the mentioned terms can be used as synonyms.

Usage of Release Names

Unless otherwise specified, the term "release" is used in this document to refer to the release of the SAP CRM system.

The following table explains which release of SAP Web Application Server and SAP NetWeaver Application Server corresponds to which release of SAP CRM Server:

3 Planning

3.1 Supported Source Releases

This section provides an overview of the supported upgrade and update paths for SAP CRM to SAP enhancement package 4 for SAP CRM.

Source Release	Target Release	Comment
SAP CRM 7.0 (based on SAP NetWeaver 7.0 enhancement package 1)	SAP enhancement package 4 for SAP CRM 7.0 (based on SAP NetWeaver 7.5)	Update (enhancement package installation)
SAP enhancement package 1 for SAP CRM 7.0 (based on SAP NetWeaver 7.0 enhancement package 2)	SAP enhancement package 4 for SAP CRM 7.0 (based on SAP NetWeaver 7.5)	Update (enhancement package installation)
SAP enhancement package 2 for SAP CRM 7.0 (based on SAP NetWeaver 7.0 enhancement package 3)	SAP enhancement package 4 for SAP CRM 7.0 (based on SAP NetWeaver 7.5)	Update (enhancement package installation)
SAP enhancement package 2 for SAP CRM 7.0 on HANA (based on SAP NetWeaver 7.0 enhancement package 3)	SAP enhancement package 4 for SAP CRM 7.0 (based on SAP NetWeaver 7.5)	Major Upgrade
SAP enhancement package 3 for SAP CRM 7.0 (based on SAP NetWeaver 7.0 enhancement package 3)	SAP enhancement package 4 for SAP CRM 7.0 (based on SAP NetWeaver 7.5)	Update (enhancement package installation)

3.2 Upgrading the Back-End Plug-In

Use

When you upgrade your SAP CRM server, you must also upgrade the SAP R/3 Plug-In of your SAP R/3, SAP R/3 Enterprise or SAP ECC back-end system. You require at least the SAP R/3 Plug-In 2004.1. Always use the latest available SAP R/3 Plug-In release with the highest Support Package level to keep your back-end system as up-to-date as possible. The SAP R/3 Plug-In is downward compatible with the older releases of your SAP CRM Server.

Procedure

For information about the upgrade procedure, see SAP Note 181255 and SAP Help Portal at https://help.sap.com/viewer/product/SAP_CUSTOMER_RELATIONSHIP_MANAGEMENT/7.0.4.latest.

3.3 Internet Pricing and Configurator

As of SAP Business Suite 2005, the Internet Pricing and Configurator (IPC) is part of the software layer SAP Application Platform (SAP AP) 7.0. IPC is no longer a separate server, instead it is processed on the ABAP application servers using the Virtual Machine Container (VMC) as runtime environment. For more information about the architectural changes, see SAP Note 844817.

For information about whether you require the IPC for your business processes, see the *Upgrade Master Guide* for your application.

To be able to use the IPC, you must activate the VMC after the upgrade. For more information, see Activating VMC for the Internet Pricing and Configurator [page 24].

4 Preparation

4.1 Free Space Requirements

Make sure that the appropriate free space is available in the system that you want to update (upgrade):

See http://service.sap.com/sizing for information on sizing such as *Guidelines*, *Quick Sizer Tool*, and *Performance*.

4.2 Preparations for the Middleware

Deregistering CRM_SITE* Inbound Queues

To deregister CRM_SITE_* inbound queues, proceed as follows:

1. Call the qRFC Monitor (transaction code SMQR).
2. Select the CRM_SITE_* inbound queues.
3. Choose *Deregister*.

Checking the Processing of All Messages

To see how the BDoc messages have been processed, display the BDoc message summary. You must perform this step before the upgrade downtime begins.

> **i Note**
>
> It is possible that a large number of messages is displayed.

1. To display a summary of the BDoc messages, which have not been processed successfully in the whole system (in all the clients), choose *Middleware* > *Monitoring* > *Message Flow* > *Display Unprocessed BDoc Message Summary*, and then choose *Execute*.
   The list of incomplete messages within specific clients is displayed.
   Log on to each of these clients and execute the following steps.
2. To display the BDoc summary, choose *Middleware* > *Monitoring* > *Message Flow* > *Display BDoc Message Summary*.
3. Select the required messages and choose *Execute*.
   You will see a list of messages aggregated by BDoc type. The messages that are not completely processed are marked in red or yellow. To view them, double-click a BDoc type.

4. Wait until all the inbound and outbound queues are processed in the CRM Server and no other changes are expected from external systems or mobile clients, and then choose *Refresh*.
   If some messages are still not processed, double-click the corresponding BDoc type and analyze the reason for their incomplete status. It is possible, that the BDoc messages are in error status (E01, E02, E03, E04) or intermediate status (I01, I02, I03, I04). Such messages are caused, for example, by coding errors, missing customizing, cancelled updates, or manually deleted queues. You have the following possibilities:
   - Contact your administrator and CRM consultant to decide if you want to reprocess them by choosing *Reprocess BDoc Message* or set them as deleted by choosing *Mark Message as deleted*. Note that if you reprocess or delete messages, this may imply an incorrect processing sequence which can cause inconsistencies in your landscape.
   - Find out the business object involved in the BDoc message and then define and start a request from the corresponding source system to the target system (R/3 to CRM, CRM to CDB) by using *Middleware* > *Data exchange* > *Synchronization* > *Define Requests / Start Requests*.
   - You can mark BDoc messages that result from old initial loads or requests as deleted, if newer initial load or synchronization processes have been started.

   Before the upgrade downtime starts, all messages must display a green light, which means they have been successfully processed.
5. Archive all the processed messages by running the report SMO8_FLOW_REORG in all clients of the CRM Server. To reorganize all processed BDoc messages in the CRM Server, proceed as follows:
   1. Enter the date of the next day in the parameter field *Last Changed On*.
   2. Uncheck the *Test mode* check box.
   3. Choose *Execute*.

Checking and Stopping R&R Queues

The replication and realignment (R&R) queues must be empty before the upgrade downtime. To check this, choose *Middleware* > *Monitoring* > *Queues* > *Monitor R&R Queues*.

Then stop the individual R&R queues.

Deregistering R3A* Inbound Queues

To deregister the inbound queues before the upgrade downtime, proceed as follows:

1. Call the qRFC monitor (transaction SMQR).
2. Select the R3A* inbound queues.
   Depending on the Customizing of the `CRMCONSUM` table, the inbound queue may be called something else. This is based on the entry under *Consumer* in the `CRMCONSUM` table, or the Q prefix. For more information, see SAP Note 720819.
3. Choose *Deregistration*.

Preparing the Upgrade of Customer-Specific BDoc Types

To prepare the upgrade of your customer-specific BDoc types, log on to your development system and create a package or choose an existing one (package name starting with Z or Y) for the BDoc type catalog entries. This package is required in the step *Post-Upgrade Handling of BDoc Types* in the section Follow-Up Activities for the Middleware [page 14].

5 Process

This section of the guide contains information about process-related application-specific tasks – if there are any (in some cases, there are no application-specific tasks).

5.1 Note About the Process

The following table contains definitions of the most important terms used in this section:

Term	Definition
Update	Installation of an enhancement package on an existing SAP system.
Upgrade	Upgrade to an SAP system including an enhancement package.

> **i Note**
>
> The update and upgrade processes are described in detail in the Software Update Manager (SUM) guides. You have to use the Software Update Manager (SUM) guide in parallel with this application-specific guide, because the two types of guide complement each other — the SUM guide contains the overall process, tool, operating system- and database-specific information while this guide contains the application-specific information.
>
> You find the SUM guide you need by using the SAP NetWeaver Guide Finder under http://help.sap.com/nw75 *Installation and Upgrade Information* > *SAP NetWeaver Guide Finder*.
>
> SAP Enhancement Package 4 for Customer Relationship Management 7.0 actually requires no application-specific steps in the *Process section* – there are only generic steps documented in the SUM guides. Ensure that you are using the latest version of the Software Logistic (SL) Tool Set. You find this under http://support.sap.com/sltoolset *System Maintenance* or in SAP Note 1563579.

6 Follow-Up Activities

6.1 Follow-Up Activities

This section of the guide describes application-specific steps that have to be done after the update or upgrade process is complete.

6.2 Follow-Up Activities for the Middleware

Post-Upgrade Handling of BDoc Types

You must perform the following action: Adjust modifications for SAP delivered BDoc types by using the BDoc Modeler.

Proceed as follows:

1. In your development system:
   1. Modification adjustments:
      1. Use the BDoc Modeler to adjust your BDoc type modifications. Display modified BDoc types by choosing the appropriate toggle button or pressing `Ctrl-Shift-F1` (Consistent <-> Inconsistent). Modified BDoc types are marked by a status icon. Click this icon to perform the adjustment. Note that the conversion program must have been run before you make an adjustment. The BDoc types you adjust are recorded in your transport request.
      2. Release the above transport request(s).
2. In your test and production systems:
   1. After you have upgraded your test system, you must import the above transports.
   2. You can check whether all objects have been properly converted by choosing *Architecture and Technology* > *Middleware* > *Administration* > *Display Upgrade Status* (transaction code `MW_CHECK`).

Reregistering CRM_SITE_* Queues

This step applies to CRM Mobile Applications only

To reregister the CRM_SITE_* queues, choose *Middleware* > *Administration* > *Register/Deregister Queues*. Select the CRM_SITE_* queues and choose *Registration*.

Implementing an Authorization Concept for the CRM Adapter Framework

Using authorization checks, you can restrict access to adapter object management (*Middleware* > *Data Exchange* > *Object Management*) and to the execution of initial data loads, synchronization, and data requests (*Middleware* > *Data Exchange* > *Initial Load and Data Exchange* > *Synchronization*).

SAP delivers the following additional roles:

- SAP_CRM_MW_ADP_CUSTOMIZER
  Change authorization for adapter objects and DIMa instances
- SAP_CRM_MW_ADP_ADMINISTRATOR
  Authorization for executing data loads
- SAP_CRM_MW_ADP_ALL
  Combined authorization including both roles

Assign these single roles to your appropriate composite roles. The corresponding authorization object is CMW_CRMADP.

Making Settings for Mobile CRM Scenarios

This step applies to CRM Mobile Applications only.

If you want to implement a mobile scenario, you must configure certain settings. In the Implementation Guide, choose *CRM Middleware and Related Components* > *Settings for Mobile Scenarios*.

Configuring the E-Mail ID in the MMR_CNTL Table

A new feature has been introduced in the Mobile Client Message Recovery that sends periodical alerts through e-mails to the configured e-mail ID. The alert message is triggered when the number of unprocessed messages reaches a specified limit. For more information, see the online documentation at SAP Help Portal at http://help.sap.com/crm *SAP CRM <Release>* > *Application Help <Language>* > *SAP Customer Relationship Management* > *Data Exchange and Mobile Technologies* > *CRM Integration Services* > *Mobile Clients* > *Message Recovery* > *Data Controlling*.

Therefore, you must configure the e-mail ID in the `MMR_CNTL` table. For more information, see the SAP Implementation Guide (transaction `SPRO`) under *Customer Relationship Management* > *CRM Middleware and Related Components* > *Communication Setup* > *Middleware Parameters* > *Configuring Unprocessed Message Alerts*.

Updating SAP Delivered General Filters for Existing Sites

For information on how to update general filters for existing sites that were newly delivered by SAP, see SAP Note 569658.

Generating Indexes on CDB Tables

This step applies to CRM Mobile Applications only.

In the consolidated database, adjust the indexes by choosing *Architecture and Technology* > *Middleware* > *Development* > *Generation* > *Generation* > *Generate Application Table Indexes* (transaction code `GN_CDBINDEX`).

Regenerating Middleware Services

After the upgrade, you have to generate new runtime objects (services) for your own BDoc types, for modified BDoc types, and for industry-specific objects in each of your systems. The generation queue has been filled during the upgrade. To initiate the processing of this queue, choose *Architecture and Technology* > *Middleware* > *Development* > *Generation* > *Generation* > *Start Generation Queue Processing*.

Schedule a periodic background job for this step.

Generation may take some time. After the generation is complete, check in transaction `GENSTATUS` whether all processes have been successful. Choose *Architecture and Technology* > *Middleware* > *Development* > *Generation* > *Generation* > *Status of Generation Jobs* (transaction code `GENSTATUS`).

If entries remain in status *Error*:

- Check whether the entries refer to a custom-modified BDoc Type.
  For custom-modified BDoc Types, perform the *BDoc Merge or BDoc Structure Regeneration* steps as given below.
- For other issues, refer to the central Release and Information Note (RIN).

Perform BDoc Merge or BDoc Structure Regeneration for Custom Modified BDoc Types

For custom-modified BDoc Types manual regeneration of custom-modified structures or a BDoc Version Merge may be required.

These tasks are not performed automatically.

A BDoc Merge is required if your local custom version needs to be merged with an incoming new SAP version of the same BDoc Type.

Proceed as follows:

1. In transaction `GENSTATUS`, take the set of BDoc Types for which post processing is required. Candidates are the BDoc Types, which could not be generated automatically and remain in status *Error* after full execution of the generation.

For example, if you find entries like the following:

Object Name	Gen. group	Generator	Status	Type	Message text
CAP-GEN_OBJ_WRITE	TRANS		E	F	...
CAP-GEN_OBJ_WRITE CG	GNREP		E	F	...
CAP-GEN_OBJ_WRITE HT	GNREP		E	F	...

and you have made a modification to object CAPGEN_OBJ_WRITE before the upgrade, then CAPGEN_OBJ_WRITE is a candidate for post processing.

2. Navigate to the BDoc Modeler by choosing *Architecture and Technology* > *Middleware* > *Development* > *Meta Object Modeling* > *BDoc Modeler* (transaction code `SBDM`).
3. In the BDoc Modeler set filter conditions to display the BDoc Types requiring post processing. Depending on the status of the BDoc Types, proceed as follows:
   - If the BDoc Type is conflict-free (indicated by a green flag) and active:
     1. Regenerate the object in the BDoc Modeler by choosing the *Generate* button.
        - You may be asked to provide a Transport Request.
        - You may be asked to provide access keys (probably multiple times) for structures to be regenerated in customer namespace.
     2. Upon completion, navigate back to transaction `GENSTATUS` and process all entries in `GENSTATUS` pertaining to this BDoc Type.
        - Select the entries.
        - Choose the *Generate* button.
   - If the BDoc Type is conflict-free, but inactive:
     1. Activate the BDoc Type in the BDoc Modeler by choosing the *Activate* button.
        - You may be asked to provide a Transport Request.
        - You may be asked to provide access keys (probably multiple times) for structures to be regenerated in customer namespace.
     2. Upon completion, navigate back to transaction `GENSTATUS` and process all entries in `GENSTATUS` pertaining to this BDoc Type.
        - Select the entries.
        - Choose the *Generate* button.
   - If the BDoc Type has a Versioning Conflict after import of a new SAP version (indicated by a red conflicting symbol):
     1. Execute the BDoc Merge.
        Proceed as follows:
        - Double-click the BDoc Type.
          The BDoc Merge screen opens and on the left-hand side you see the attributes of the custom-modified version, while on the right-hand side you see the new attributes of the SAP version.

- Select the SAP version to be merged with your custom version.
- Choose the *Merge* button.
  As a result, a merged version is created. The new version number appears in a dialog window.
- Choose the *Save* button.

2. The regeneration of the merged structures starts and the merged version is being activated.
   - You may be asked to provide a Transport Request.
   - You may be asked to provide access keys (probably multiple times) for structures to be regenerated in customer namespace.
3. Upon completion, navigate back to transaction `GENSTATUS` and process all entries in `GENSTATUS` pertaining to this BDoc Type.
   - Select the entries.
   - Choose the *Generate* button.

Checking Middleware Functions

After you have performed all Middleware-related post-upgrade activities, you must check whether the middleware works properly.

To check the Middleware functions, call transaction `MW_CHECK`.

If any errors are displayed, you can find detailed information in the corresponding long text.

Refer also to the central Release and Information Note (RIN).

Rereleasing Replication & Realignment Queues

This step applies to CRM Mobile Applications only.

The replication & realignment queues must be released again after the upgrade.

To release the queues, choose *SAP menu* > *Architecture and Technology* > *Middleware* > *Monitoring* > *Queues* > *Monitor R & R Queues.* .

Reregistering Inbound Queues

To reregister the inbound queues, choose *Middleware* > *Administration* > *Register/Deregister Queues* and proceed as follows:

1. Select the R3A* inbound queues.
2. Choose *Registration*.

6.3 Follow-Up Activities for Customer Enhancements

Use

In case the updated or upgraded system has been enhanced using customer enhancements, make sure to run the *WebClient UI Framework Check* and read the general information on dealing with enhancements below to ensure consistency after the upgrade or update process.

Procedure

Check out the following information sources:

- **Adaption of Enhancements**
  For information about adapting your enhancements after upgrading or updating your system, see SAP Note 1570869.
- **WebClient UI Framework Check**
  You can use the *WebClient UI Framework Check* to analyze the consistency of user interface (UI) repository data and configuration data for the WebClient UI framework, for example, after you have upgraded your SAP CRM installation to a higher release. If errors are detected, you can navigate from the error messages to the affected system objects and display a history.
  Start the check in Customizing for Customer Relationship Management, under *UI Framework* > *UI Framework Definition* > *Perform WebClient UI Framework Checks*
  In the *WebClient UI Framework Check*, you can select the following:
  - Views to be checked:
    - Enhancement Set
    - UI Component
    - View
    - Business Role
  - Types of checks:
    - Consistency of Enhanced Views
    - Comparison of Runtime Repositories
    - Design Layer
    - UI Configurations
    - UI Personalization

  For more information on the *WebClient UI Framework Check*, see SAP Library on http://help.sap.com/crm *SAP CRM 7.0 EHP4* > *WebClient UI Framework* > *WebClient UI Framework Check*
- **Dealing with Framework Enhancements**
  For information about dealing with framework enhancements in addition to the SAP Library documentation, see SAP Note 1122248.
  This note describes the following:
  - General recommendations
  - Canceling/deleting modifications
    - Deleting an enhancement element

        - Deleting a complete enhancement for a component
    - Postprocessing after importing Support Packages and performing upgrades
    - Determining enhancement sets
    - Cooperation between enhancements and configurations
    - Restrictions for enhanced views
- **Renaming and Deletion of some Objects as of CRM 7.0 EhP4**
  A series of repository objects in the software component `BBPCRM` have been renamed in CRM 7.0 EhP4 for technical reasons. This means that 1:1 copies of these objects have been created, and all usages of the original objects have been adjusted to the new objects. The original objects have been isolated in the new software component `CRM_PLUS`. There may be an impact on custom code.
  For more information and instructions on how to proceed, see SAP Note 2215543.
- **Troubleshooting: BSP Exception**
  For information about how to fix the exception `CX_BSP_INV_ATTR_NAME`, see SAP Knowledge Base Article 1615938.

6.4 Copying Tax Engine Configuration Data

Use

Prior to SAP CRM 5.0, you could assign a separate client to the Tax Engine (TTE) which then provided the customizing data for the TTE at runtime. For technical reasons this feature is no longer supported. Every client from which TTE is used needs its own customizing settings now. We provide a tool to copy the TTE customizing settings from a separate source client to all other clients as needed.

Prerequisites

You have used a separate client to provide customizing data for the Tax Engine.

Procedure

For information about the procedure, see SAP Note 831339.

6.5 Follow-Up Activities for Workforce Deployment

The following sections explain the steps you must perform after the upgrade to CRM 7.0 EHP4, when you are running Interaction Center Workforce Management (IC WFM) 4.0 or Multisite Workforce Deployment (MS WFD) 1.0. The installation and upgrade processes for these are identical, so for simplicity´s sake, they are both referred to as Workforce Deployment. This document describes the process of upgrading and migrating data from Workforce Deployment to integrate with the WFD Server.

The necessary XCM configuration steps for WFD Application Services and Calculation Services are described in *SAP Solution Manager* under *Solutions/Applications* > *SAP CRM* > *Configuration Structures* > *SAP CRM 7.0 EHP 3* > *Basic Settings for SAP CRM* > *Web Applications*.

Prerequisites

You have upgraded the WFM Core Add-On to WFM Core 200 during the CRM server upgrade as described in SAP Note 830596.

6.5.1 Follow-Up Activities for Service Resource Planning

Use

As of CRM 5.0, the 4.0 scenarios Service Employee Resource Planning (SERP) and Project Resource Planning (PRP) have been merged into the single scenario Service Resource Planning (SRP). The following sections describe the activities you must perform to upgrade from either or both of the former scenarios to SRP.

Procedure

Upgrade Reports

The following reports are provided to automate portions of the upgrade process for SRP. Run these reports if the settings they define are relevant to your SRP implementation.

Report	Description
WFDBP_UPDATE_BLUEPRINT	Running this report updates Blueprint tables, which define settings required to properly display and maintain Service Arrangements in the People-Centric User Interface.
WFDBP_ATS_CREATE	Running this report creates Service Arrangements for Business Partners (role: employee) that previously existed in the WFM Core as resources.
CRM_WFD_TIMESPEC_DEL_FROM_CDB	Time Allocations with a Time Allocation Type that is HR-relevant are not transferred to mobile devices. If a Time Allocation Type becomes relevant for HCM, the corresponding Time Allocations must be deleted from the Mobile Service in mySAP CRM. This report deletes these Time Allocations.

Report	Description
WFDBP_DELIMIT_TIMESPEC	Time Allocations created in a prior release using either PRP_WFM_ADMIN (for PRP) or CRM_LRP_FILL_RES (for SERP) are no longer valid if you are using the new Resource Planner Application (RPA) with process variant Service Employee Resource Planning in CRM. Use this report to delete or delimit the invalid Time Allocations that were created in the prior release.
CRM_WFDS_DEMANS_UPLOAD	Run this report to begin an initial download of existing Service Order items that are relevant for resource planning.

Additional Activities for Service Employee Resource Planning

You must perform the following activities if you are upgrading from a previous version of Service Employee Resource Planning with WFM Core 1.0. These activities must be performed if you are upgrading to either the process variant Service Employee Resource Planning in CRM or the process variant Service Resource Planning in CRM.

> **i Note**
>
> You do not have to execute these steps if you already used WFM Core 1.10 and followed the upgrade steps described in SAP Note 847236.

Defining Time Allocation Types

1. To define Time Allocation Types, choose in the IMG for Workforce Deployment *WFD Server* > *Business Settings for WFD Server* > *Resource Settings* > *Define Time Allocation Types.*
2. Set the Exception Indicator (EI) flag for any Time Allocation Type that you wish to define as an Availability / Non-Availability in the RPA and in the Mobile solutions.

   > **i Note**
   >
   > Conversely, in the process variant Service Resource Planning in CRM, if you create basic availabilities for employees or service providers using the *Availability* tab for Service Arrangements, you may only use Time Allocation Types for which the Exception Indicator flag is not set

3. If you do not define all existing Time Allocation Types as exceptions, and the SAP CRM Mobile Service is active, you must delete the availability descriptions that do not have an Exception Indicator from the mobile device. You can use the report CRM_WFD_TIMESPEC_DEL_FROM_CDB to do this. Then resynchronize the laptop / mobile device.

Availabilites Created in Previous Versions

When you first upgrade to WFD Server, no Time Allocation types have the Exception Indicator flag set. Therefore, all availabilities that have been created in the Resource Planning tool in previous versions can no longer be edited. Instead, they are transferred to basic availability as grey/white information. To enable the editing mode for these Time Allocation Types, you must set the Exception Indicator flag corresponding to the Time Allocation Type.

Optionally, when you are carrying out an upgrade is to set the Exception Indicator flag for exist-ing Time Allocation Types, and create new Time Allocation Types for Basic Availabilities. Con-versely, you can use existing Time Allocation Types for Basic Availabilities, and create new Time Allocation Types for exceptions. The consequence of this is that the Resource Planner has fewer Time Allocation Types for use in scheduling.

Basic Availabilities Created by Using Report CRM_LRP_FILL_RES

When you create basic availabilities using the report CRM_LRP_FILL_RES, you can only use Time Allocation Types for which the Exception Indicator flag is not set. Basic availabilities that have been created using the report CRM_LRP_FILL_RES remain basic. That is, if you flag the Time Allocation Type that forms the basis for an Exception at a later stage, this information appears as grey/white information that you cannot edit.

6.5.2 Configuration and Migration Steps for the Workforce Deployment Server

You have to perform the following steps on the WFD Server.

For more information about the configuration activities, see the *Implementation Guide* under *Workforce Deployment*.

Step	IMG Path/Program	Mandatory/Optional
IMG Activities		
1. Configure the WFD Server Time allocations.	*Workforce Deployment* > *Workforce Deployment Server* > *Business Settings for WFD Server* > *Resource Settings* > *Define Time Allocation Types*	Mandatory
2. Configure the WFD mappings to WFD Server Time Allocations.	*Workforce Deployment* > *Retail and Interaction Center Workforce Deployment* > *Global Settings* > *Define Time Allocation Mappings*	Mandatory
3. Configure absence types within Retail and Interaction Center.	*Workforce Deployment* > *Retail and Interaction Center Workforce Deployment* > *Operational Settings* > *Define Absence Types*	Mandatory
4. Define the application system.	*Workforce Deployment* > *Workforce Deployment Server* > *Business Settings for WFD Server* > *SAP HCM Integration* > *Define Application System*	If HCM integration is enabled.

Step	IMG Path/Program	Mandatory/Optional
5. Map time allocations to HCM Info-types.	*Workforce Deployment* > *Workforce Deployment Server* > *Business Settings for WFD Server* > *SAP HCM Integration* > *Map Time Allocations to HCM Infotypes*	If HCM integration is enabled.
Migration Programs		
6. Migrate business partners to the WFD Server.	Execute program `WFM_BP_MIGRATION`. Select all organizational units.	Mandatory
7. Migrate existing schedules to the WFD Server.	Execute program `WFM_SCHEDULE_MIGRATION` Specify the start and end date of the range for which you want to migrate schedules to the WFD Server. You do not have to specify a location; however, not selecting a location migrates schedules for all locations for that time period.	Optional If you wish to view existing schedules within the application, run this program for the necessary time frame for which you wish to view existing schedules.

6.6 Activating VMC for the Internet Pricing and Configurator

Use

If you want to use the Internet Pricing and Configurator 7.1, you have to activate the Virtual Machine Container (VMC). For information about whether you require the IPC for your business processes, see the *Upgrade Master Guide* for your application.

Procedure

Activate the VMC as described in SAP Note 854170.

6.7 Miscellaneous Follow-Up Activities

After the upgrade to SAP enhancement package 4 for SAP CRM 7.0, note the following:

The process of defining SAP CRM add-on for SAP ERP (add-on used for the co-deployment of SAP CRM and SAP ERP) required certain system conflicts to be resolved. Some of these conflicts were caused by Customizing table fields that refer to the entity type “catalog type” and were used both in SAP CRM and SAP ERP. In SAP enhancement package 4 (SP01) for SAP CRM 7.0, the missing table contents are copied from the SAP ERP tables to new objects in the SAP CRM system, using the program `XPRA CRM_QKATART_XPRA_714`. The naming convention for the new tables is `CRMC_<name of SAP ERP table>`.

The report `XPRA CRM_QKATART_XPRA_714` runs automatically during upgrade. After the report has run, check the transport log section *Programs Run After Import* and do the following:

- If there are any error messages for the program, restart the program.
  During the additional program run, copied table entries are not copied again. The program can be restarted multiple times, until all table entries have been successfully copied.
- The program has been executed successfully if there is just one message in the transport log, containing information about the number of copied table entries. In this case no further actions are required.

For more information, see report documentation for report `XPRA CRM_QKATART_XPRA_714` in the system.

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