SAP Customer Relationship Management 7.0
Including SAP Enhancement Package 3 (ABAP)
Caution
Before you start the implementation, make sure you have the latest version of this document. You can find the latest version at the following location: service.sap.com/instguides.

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

Table 1

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>2013-08-13</td>
<td>First version</td>
</tr>
<tr>
<td>1.1</td>
<td>2013-10-31</td>
<td>Section Process&lt;br&gt;Subsection Note about the Process: Toolset version updated&lt;br&gt;Only relevant for ABAP: Subsection SAP HANA: Update and Migration Process: Information on the Database Migration Option (DMO) of the Software Update Manager added</td>
</tr>
<tr>
<td>1.2</td>
<td>2013-11-15</td>
<td>Section Getting Started: Reference about SAP Fiori for SAP CRM documentation added</td>
</tr>
<tr>
<td>1.3</td>
<td>2014-01-09</td>
<td>Only relevant for ABAP: Subsection SAP HANA: Update and Migration Process: References to SL Toolset Guides updated</td>
</tr>
<tr>
<td>1.4</td>
<td>2014-04-09</td>
<td>Only relevant for ABAP: Subsection Important SAP Notes: SAP Notes added for preprocessing steps</td>
</tr>
<tr>
<td>1.5</td>
<td>2014-11-24</td>
<td>Terminology change added from “usage type” to “product instance” under Naming Conventions and Upgrade Scope for CRM Java Components.</td>
</tr>
<tr>
<td>1.6</td>
<td>2015-08-13</td>
<td>Only relevant for ABAP: Topic Follow-Up Activities for Customer Enhancements added under Follow-Up Activities.</td>
</tr>
<tr>
<td>1.7</td>
<td>2016-04-14</td>
<td>Reference to SAP Fiori documentation changed under SAP Fiori Apps.</td>
</tr>
</tbody>
</table>
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1 Getting Started

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

1.1 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 3 (ABAP). This guide only contains information specific to SAP CRM, but you need additional information to enable you to perform your upgrade correctly.

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 3 (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 on the SAP Service Marketplace at the same location as the Master Guide – SAP Customer Relationship Management 7.0 Including SAP Enhancement Package 3, see path below.

The Master Guide – SAP Customer Relationship Management 7.0 Including SAP Enhancement Package 3 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.

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 3 from the SAP Service Marketplace:


1.2 SAP Fiori Apps

For information regarding SAP Fiori for SAP CRM, see SAP Help Portal at 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 3, the component GBX02CRM 700 is automatically retrofitted into the component SAP CRM ABAP 7.13 (which now contains the OData services). You do not need to uninstall GBX02CRM 700.

End of: Enhancement Package Installation; Upgrade

1.3 Important SAP Notes

<table>
<thead>
<tr>
<th>SAP Note Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>837413</td>
<td>Support Package Levels for SAP CRM Installations and Upgrades</td>
</tr>
<tr>
<td>1737725</td>
<td>SAP CRM 7.0 EHP 3 SPS 01 – Release &amp; Information Note</td>
</tr>
<tr>
<td>1570869</td>
<td>Adaption of Enhancements After Support Package or Release Upgrade</td>
</tr>
<tr>
<td>1514967</td>
<td>Central SAP Note for SAP In-Memory Appliance (SAP HANA)</td>
</tr>
<tr>
<td>1514966</td>
<td>Sizing Information for the SAP In-Memory Database (SAP HANA)</td>
</tr>
</tbody>
</table>
1.4 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:

Table 3

<table>
<thead>
<tr>
<th>SAP Web Application Server / SAP NetWeaver Application Server</th>
<th>SAP CRM Server</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP NetWeaver 7.0 Application Server</td>
<td>SAP CRM 5.0, SAP CRM 5.2, SAP CRM 2007</td>
</tr>
<tr>
<td>SAP Web Application Server / SAP NetWeaver Application Server</td>
<td>SAP CRM Server</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>SAP NetWeaver 7.0 Application Server including enhancement package 1</td>
<td>SAP CRM 7.0</td>
</tr>
<tr>
<td>SAP NetWeaver 7.0 Application Server including enhancement package 2</td>
<td>SAP CRM 7.0 including SAP enhancement package 1</td>
</tr>
<tr>
<td>SAP NetWeaver 7.0 Application Server including enhancement package 3</td>
<td>SAP CRM 7.0 including SAP enhancement package 2</td>
</tr>
<tr>
<td>SAP NetWeaver 7.4 Application Server</td>
<td>SAP CRM 7.0 including SAP enhancement package 3</td>
</tr>
</tbody>
</table>
2 Planning

2.1 Supported Source Releases

This section provides an overview of the supported upgrade and update paths for SAP CRM to SAP enhancement package 3 for SAP CRM.

Table 4

<table>
<thead>
<tr>
<th>Source Release</th>
<th>Target Release</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP CRM 5.2 (based on SAP NetWeaver 7.0)</td>
<td>SAP enhancement package 3 for SAP CRM (based on SAP NetWeaver 7.4)</td>
<td>A one-step upgrade is possible for all source releases.</td>
</tr>
<tr>
<td>SAP CRM 5.0 (based on SAP NetWeaver 7.0)</td>
<td>SAP enhancement package 3 for SAP CRM (based on SAP NetWeaver 7.4)</td>
<td>Update (enhancement package installation)</td>
</tr>
<tr>
<td>SAP CRM 2007 (based on SAP NetWeaver 7.0)</td>
<td>SAP enhancement package 3 for SAP CRM (based on SAP NetWeaver 7.4)</td>
<td>Update (enhancement package installation)</td>
</tr>
<tr>
<td>SAP CRM 7.0 (based on SAP NetWeaver 7.0 enhancement package 1)</td>
<td>SAP enhancement package 3 for SAP CRM (based on SAP NetWeaver 7.4)</td>
<td>Update (enhancement package installation)</td>
</tr>
<tr>
<td>SAP enhancement package 1 for SAP CRM (based on SAP NetWeaver 7.0 enhancement package 2)</td>
<td>SAP enhancement package 3 for SAP CRM (based on SAP NetWeaver 7.4)</td>
<td>Update (enhancement package installation)</td>
</tr>
<tr>
<td>SAP enhancement package 2 for SAP CRM (based on SAP NetWeaver 7.0 enhancement package 3)</td>
<td>SAP enhancement package 3 for SAP CRM (based on SAP NetWeaver 7.4)</td>
<td>Update (enhancement package installation)</td>
</tr>
<tr>
<td>SAP CRM Powered by HANA 1.0</td>
<td>SAP enhancement package 3 for SAP CRM (based on SAP NetWeaver 7.4)</td>
<td>Update (enhancement package installation)</td>
</tr>
</tbody>
</table>

Note

All SAP CRM enhancement package versions for Java also run on SAP NetWeaver 7.30 and 7.31.

2.2 Upgrading the Back-End Plug-In

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 Service Marketplace at service.sap.com/r3-plug-in.

Only valid for: Upgrade |

2.3 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 27].

End of: Upgrade |
3  Preparation

3.1  Free Space Requirements

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

<table>
<thead>
<tr>
<th>Directory</th>
<th>Free Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUM Directory</td>
<td>Approximately 10 GB</td>
</tr>
<tr>
<td>Download Directory</td>
<td>Approximately 10 GB</td>
</tr>
<tr>
<td>DIR_TRANS</td>
<td>Approximately 10 GB</td>
</tr>
<tr>
<td>Shadow System</td>
<td>Approximately the space required for your source release instance, that is, the size of the following directory:</td>
</tr>
<tr>
<td></td>
<td>• UNIX: /usr/sap/&lt;sapSID&gt;</td>
</tr>
<tr>
<td></td>
<td>• Windows: &lt;Drive&gt;:\usr\sap&lt;sapSID&gt;</td>
</tr>
<tr>
<td></td>
<td>• IBM: /usr/sap/&lt;SID&gt;</td>
</tr>
<tr>
<td>Free space in the database</td>
<td>Approximately 50 GB</td>
</tr>
</tbody>
</table>

**Note**
If you are updating from SAP enhancement package 2 of SAP CRM 7.0, which is on a SAP HANA DB to enhancement package 3, additional memory is required to accommodate the shadow tables. You must therefore observe the additional RAM requirements before proceeding with the update.

3.2  Preparations for the Middleware

Procedure

**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.
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.

Preparation 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 17].
4 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).

4.1 Note About the Process

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

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update</td>
<td>Installation of an enhancement package on an existing SAP system.</td>
</tr>
<tr>
<td>Upgrade</td>
<td>Upgrade to an SAP system including an enhancement package.</td>
</tr>
</tbody>
</table>

Note

The update and upgrade processes are described in detail in the Software Update Manager (SUM) guide in the following versions:
- Update process: Update Guide - Update of SAP Systems Using Software Update Manager 1.0 SPS 09
- Upgrade process: Update Guide - Update of SAP Systems Using Software Update Manager 1.0 SPS 03

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.

SAP enhancement package 3 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 Software Logistic (SL) Tool Set Version 1.0 SPS09.

You find the SUM guide on the SAP Service Marketplace at service.sap.com/instguides Installation & Upgrade Guides SAP Business Suite Applications SAP CRM SAP enhancement package 3 for SAP CRM 7.0.
4.2 Update and Migration Process for SAP HANA

This section provides an overview of the update and upgrade process steps required to enable SAP enhancement package 3 for SAP CRM 7.0 to run on SAP HANA. It also provides references to the documentation required for the process steps.

**Note**

Updates from Suite on HANA to BS7i2013 are only possible from SoH SP02 or higher.

The update process consists of the steps listed below, some of which may be optional, depending on your start release.

1. **System Copy**
   
   Before performing the steps described below, consider making a homogeneous system copy to preserve your current status, so that you have a reference or fallback system in place. You can make the system copy before performing any of the steps below, depending on your requirements and scheduling.

   - For more information about making the system copy of systems based on SAP NetWeaver 7.3 (or higher), see the documentation at service.sap.com/sltoolset Software Logistics Toolset 1.0 Documentation section: System Provisioning Installation: Systems Based on SAP NetWeaver 7.1 and Higher
   - For more information about system copy of systems based on SAP NetWeaver releases lower than 7.3, see the SAP NetWeaver installation guides at service.sap.com/instguides Installation & Upgrade Guides SAP NetWeaver.

2. **Dual-Stack Split**
   
   As of SAP enhancement package 2 for SAP CRM 7.0 you cannot deploy a dual-stack system (with both ABAP and Java components running the same system). If your SAP enhancement package 2 for SAP CRM 7.0 is currently implemented as a dual-stack system, you have to perform a split.

   For information about performing a dual-stack split, see:

   - SAP Note 1686144
   - SAP Note 1655335
   - Tool guides at service.sap.com/sltoolset Software Logistics Toolset 1.0 Documentation section: System Maintenance Updating SAP Systems Using Software Update Manager <Version>

3. **Installation of Application Function Libraries (AFLs)**
   
   Install the AFLs as described in the SAP HANA Installation Guide with Unified Installer at help.sap.com/ hana SAP HANA SAP HANA Appliance SAP HANA Installation Guide with Unified Installer.

4. **Upgrade or Update to SAP enhancement package 3 for SAP CRM 7.0**
   
   Perform the upgrade or update as explained in the Software Update Manager (SUM) guide. For more information, see service.sap.com/sltoolset Software Logistics Toolset 1.0 Documentation section: System Maintenance Updating SAP Systems Using Software Update Manager <Version>.

5. **Database Migration**
This step consists of the following substeps:

1. **Install SAP HANA**
   
   The SAP HANA appliance software can only be installed by certified hardware partners on validated hardware running a specific operating system.
   
   For more information, see SAP Note [1514967](https://help.sap.com/hana) and the system operations information at [help.sap.com/hana](https://help.sap.com/hana) > **SAP HANA Appliance** > **System Administration and Maintenance Information** > **SAP HANA Technical Operations Manual (TOM)**.

2. **Database Migration for SAP HANA Database**
   
   An existing SAP system is migrated to the SAP HANA database automatically using the database Migration Option (DMO) of the Software Update Manager (SUM), which updates and migrates the database in one step. For more information, see SAP Notes [1875197](https://help.sap.com/hana) and [1813548](https://help.sap.com/hana), and SAP Serviceplace at [service.sap.com/sltoolset](https://service.sap.com/sltoolset). You need to use at least SPS09 of the Software Update Manager 1.0.

3. **Post Migration Activities**
   
   Once the database migration has taken place, we recommend performing the following post migration activities:
   
   - Run an installation check using the transaction SICK (SAP Initial Consistency Check).
   - Adapt the system profiles and check the RFC server groups.

   **Note**
   
   The SAP HANA content is automatically activated. You do not need to manually activate this content.
5 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.

5.1 Follow-Up Activities for the Middleware

Procedure

Post-Upgrade Handling of BDoc Types

You must perform the following actions:

- Convert your own BDoc types from object type R3TR CTRA (the transport object prior to CRM 4.0) to R3TR BDOC. BDoc types now have object catalogue entries and thus require a package assignment.
- Enhance BDoc type structures for large object handling (binary tables and text tables).
- Adjust modifications for SAP delivered BDoc types by using the BDoc Modeler.

The first two actions are performed by the program CRM40_MW_BDOC_TADIR_CONVERSION.

Proceed as follows:

1. In your development system:
   1. BDoc type catalog entries and conversion:
      1. Create two transport requests for your own BDoc types, one for active BDoc types, another one for inactive BDoc types.
      2. Run the program CRM40_MW_BDOC_TADIR_CONVERSION directly.
         Specify the following as parameter values:
         - The packages defined in the step Preparing the Upgrade of Customer-specific BDoc Types in the section Preparations for the Middleware [page 11].
         - The transport requests.
      3. After the program has finished, activate or delete all inactive BDoc type versions.
   2. 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 DI Ma 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 [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).

Converting LOB (MEMO) Data

The data structures for Large Objects (Memo) have been reorganized. The data from table SMO_MEMO00 must be converted and moved to two different tables, SMODBLTXT and SMODBLBIN depending on the type of the data.

Proceed as follows in each of your systems:
1. Check that the following Middleware parameter is maintained in your system by choosing [Architecture and Technology] > [Middleware] > [Administration] > [Define Middleware parameters] (transaction code R3AC6):
   - ParsfaKey: RRS_COMMON
   - Parameter Name: MEMOCONV_SRC_CODEPAGE
   - Parval1: <codepage> (for example, 1100)
   The parameter has to specify the code page from which the data has to be converted.
   The specification of the code page is mandatory in Unicode systems:
   1. If you are using a new CRM system, enter 1100.
   2. If you are using another code page (besides 1100) and your start release is a non-unicode system, enter the respective code page value you use. Otherwise, a termination may occur or data may be lost when you use the report.
2. Run report CMW_LOB_MIGRATION in your system. This might run for some time during an upgrade, depending upon the amount of data in the SMO_MEMO00 table.
3. After execution proceed with the next steps including generation, as described in this document.
   For more information, see SAP Note 1080862.

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:

<table>
<thead>
<tr>
<th>Object Name</th>
<th>Gen. group</th>
<th>Generator</th>
<th>Status</th>
<th>Type</th>
<th>Message text</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPGEN_OBJ_WRITE</td>
<td>TRANS</td>
<td>E</td>
<td>F</td>
<td></td>
<td>...</td>
</tr>
<tr>
<td>CAPGEN_OBJ_WRITE</td>
<td>GNREP</td>
<td>E</td>
<td>F</td>
<td></td>
<td>...</td>
</tr>
<tr>
<td>CAPGEN_OBJ_WRITE</td>
<td>GNREP</td>
<td>E</td>
<td>F</td>
<td></td>
<td>...</td>
</tr>
</tbody>
</table>

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


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 SAP menu > Administration > Register/Deregister Queues and proceed as follows:

1. Select the R3A* inbound queues.
2. Choose Registration.
5.2 Follow-Up Activities for Customer Enhancements

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.


  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


- **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

● Troubleshooting: BSP Exception
  For information about how to fix the exception CX_BSP_INV_ATTR_NAME, see SAP Knowledge Base Article 1615938.

End of: Enhancement Package Installation;Upgrade | Only valid for: Source Release = SAP CRM 2.0B;SAP CRM 2.0C;SAP CRM 3.0;SAP CRM 3.1;SAP CRM 4.0 | Upgrade |

5.3 Copying Tax Engine Configuration Data

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.

End of: Source Release = SAP CRM 2.0B;SAP CRM 2.0C;SAP CRM 3.0;SAP CRM 3.1;SAP CRM 4.0 | Upgrade |

Only valid for: Upgrade |

5.4 Follow-Up Activities for Workforce Deployment

The following sections explain the steps you must perform after the upgrade to CRM 7.0 EHP3, 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.

Only valid for: Upgrade |

5.4.1 Configuration and Migration Steps for the Workforce Deployment Server

Procedure

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.

Table 8

<table>
<thead>
<tr>
<th>Step</th>
<th>IMG Path/Program</th>
<th>Mandatory/Optional</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMG Activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Configure the WFD Server Time allocations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Configure the WFD mappings to WFD Server Time Allocations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Configure absence types within Retail and Interaction Center.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Define the application system.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Map time allocations to HCM Infotypes.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Migration Programs
5.4.2 Follow-Up Activities for Service Resource Planning

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.

<table>
<thead>
<tr>
<th>Report</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WFDBP_UPDATE_BLUEPRINT</td>
<td>Running this report updates Blueprint tables, which define settings required</td>
</tr>
<tr>
<td></td>
<td>to properly display and maintain Service Arrangements in the People-</td>
</tr>
<tr>
<td></td>
<td>Centric User Interface.</td>
</tr>
<tr>
<td>WFDBP_ATS_CREATE</td>
<td>Running this report creates Service Arrangements for Business Partners</td>
</tr>
<tr>
<td></td>
<td>(role: employee) that previously existed in the WFM Core as resources.</td>
</tr>
<tr>
<td>CRM_WFD_TIMESPEC_DEL_FROM_CDB</td>
<td>Time Allocations with a Time Allocation Type that is HR-relevant are not</td>
</tr>
<tr>
<td></td>
<td>transferred to mobile devices. If a Time Allocation Type becomes relevant</td>
</tr>
<tr>
<td></td>
<td>for HCM, the corresponding Time Allocations must be deleted from the</td>
</tr>
<tr>
<td></td>
<td>Mobile Service in mySAP CRM. This report deletes these Time Allocations.</td>
</tr>
<tr>
<td>WFDBP_DELIMIT_TIMESPEC</td>
<td>Time Allocations created in a prior release using either PRP_WFM_ADMIN</td>
</tr>
<tr>
<td></td>
<td>(for PRP) or CRM_LRP_FILL_RES (for SERP) are no longer valid if you are</td>
</tr>
</tbody>
</table>
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.

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


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.

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 Availability. Conversely, you can use existing Time Allocation Types for Basic Availability, 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 Availability Created by Using Report CRM_LRP_FILL_RES

When you create basic availability using the report CRM_LRP_FILL_RES, you can only use Time Allocation Types for which the Exception Indicator flag is not set. Basic availability that have been created using the report

<table>
<thead>
<tr>
<th>Report</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRM_WFDS DEMANS UPLOAD</td>
<td>Run this report to begin an initial download of existing Service Order items that are relevant for resource planning.</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
</tbody>
</table>
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.

5.5 Activating VMC for the Internet Pricing and Configurator

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.

Follow-Up Activities
Typographic Conventions

Table 10

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