How To... Switch to CM Services

Applicable Releases:

SAP NetWeaver® 7.0 (including enhancement package 1 and 2), SAP NetWeaver 7.3 or higher

IT Practice / Topic Area:
Application Lifecycle Management

IT Scenario / Capability:
Change Management

Version 1.2
March 2014
© Copyright 2014 SAP AG. All rights reserved.
No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG. The information contained herein may be changed without prior notice.
Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.
Microsoft, Windows, Outlook, and PowerPoint are registered trademarks of Microsoft Corporation.
IBM, DB2, DB2 Universal Database, OS/2, Parallel Sysplex, MVS/ESA, AIX, S/390, AS/400, OS/390, OS/400, iSeries, pSeries, xSeries, zSeries, z/OS, AFP, Intelligent Miner, WebSphere, Netfinity, Tivoli, Informix, i5/OS, POWER, POWER5, OpenPower and PowerPC are trademarks or registered trademarks of IBM Corporation.
Adobe, the Adobe logo, Acrobat, PostScript, and Reader are either trademarks or registered trademarks of Adobe Systems Incorporated in the United States and/or other countries.
Oracle is a registered trademark of Oracle Corporation.
UNIX, X/Open, OSF/1, and Motif are registered trademarks of the Open Group.
Citrix, ICA, Program Neighborhood, MetaFrame, WinFrame, VideoFrame, and MultiWin are trademarks or registered trademarks of Citrix Systems, Inc.
HTML, XML, XHTML and W3C are trademarks or registered trademarks of W3C®, World Wide Web Consortium, Massachusetts Institute of Technology.
Java is a registered trademark of Sun Microsystems, Inc.
JavaScript is a registered trademark of Sun Microsystems, Inc., used under license for technology invented and implemented by Netscape.
MaxDB is a trademark of MySQL AB, Sweden.
SAP, R/3, mySAP, mySAP.com, xApps, xApp, SAP NetWeaver, and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and in several other countries all over the world.
All other product and service names mentioned are the trademarks of their respective companies. Data contained in this document serves informational purposes only.
National product specifications may vary.
These materials are subject to change without notice.
These materials are provided by SAP AG and its affiliated companies ("SAP Group") for informational purposes only, without representation or warranty of any kind, and SAP Group shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP Group products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.
These materials are provided "as is" without a warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement.
SAP shall not be liable for damages of any kind including without limitation direct, special, indirect, or consequential damages that may result from the use of these materials.
SAP does not warrant the accuracy or completeness of the information, text, graphics, links or other items contained within these materials. SAP has no control over the information that you may access through the use of hot links contained in these materials and does not endorse your use of third party web pages nor provide any warranty whatsoever relating to third party web pages.
SAP NetWeaver “How-to” Guides are intended to simplify the product implementation. While specific product features and procedures typically are explained in a practical business context, it is not implied that those features and procedures are the only approach in solving a specific business problem using SAP NetWeaver. Should you wish to receive additional information, clarification or support, please refer to SAP Consulting.
Any software coding and/or code lines / strings ("Code") included in this documentation are only examples and are not intended to be used in a productive system environment. The Code is only intended better explain and visualize the syntax and phrasing rules of certain coding.
SAP does not warrant the correctness and completeness of the Code given herein, and SAP shall not be liable for errors or damages caused by the usage of the Code, except if such damages were caused by SAP intentionally or grossly negligent.
Disclaimer
Some components of this product are based on Java™. Any code change in these components may cause unpredictable and severe malfunctions and is therefore expressly prohibited, as is any decompilation of these components.
Any Java™ Source Code delivered with this product is only to be used by SAP’s Support Services and may not be modified or altered in any way.
## Document History

<table>
<thead>
<tr>
<th>Document Version</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>Includes SAP NetWeaver 7.3 and higher</td>
</tr>
<tr>
<td>1.1</td>
<td>Updated Recommendations</td>
</tr>
<tr>
<td>1.00</td>
<td>First official release of this guide</td>
</tr>
</tbody>
</table>
## Typographic Conventions

<table>
<thead>
<tr>
<th>Type Style</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Example Text</strong></td>
<td>Words or characters quoted from the screen. These include field names, screen titles, push buttons labels, menu names, menu paths, and menu options. Cross-references to other documentation.</td>
</tr>
<tr>
<td><strong>Example text</strong></td>
<td>Emphasized words or phrases in body text, graphic titles, and table titles.</td>
</tr>
<tr>
<td><strong>Example text</strong></td>
<td>File and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.</td>
</tr>
<tr>
<td><strong>Example text</strong></td>
<td>User entry texts. These are words or characters that you enter in the system exactly as they appear in the documentation.</td>
</tr>
<tr>
<td><strong>&lt;Example text&gt;</strong></td>
<td>Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.</td>
</tr>
<tr>
<td><strong>EXAMPLE TEXT</strong></td>
<td>Keys on the keyboard, for example, F2 or ENTER.</td>
</tr>
</tbody>
</table>

## Icons

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>🔴</td>
<td>Caution</td>
</tr>
<tr>
<td>📘</td>
<td>Note or Important</td>
</tr>
<tr>
<td>📝</td>
<td>Example</td>
</tr>
<tr>
<td>🕵️‍♀️</td>
<td>Recommendation or Tip</td>
</tr>
</tbody>
</table>
# Table of Contents

1. Business Scenario ................................................................. 1  
2. Introduction .............................................................................. 2  
3. General Recommendations ..................................................... 3  
4. Background Information ......................................................... 4  
5. Assumptions ............................................................................ 4  
6. Restrictions ............................................................................. 5  
7. From CMS to CM Services in SAP NetWeaver 7.0 including EHP1 ........ 6  
8. From CMS to CM Services in SAP NetWeaver 7.0 including EHP2 .......... 8  
9. From CMS to CM Services in SAP NetWeaver 7.3 or higher ............. 10  
10. From CMS with CTS to CM Services in SAP NetWeaver 7.0 including EHP1 .... 11  
11. From CMS with CTS to CM Services in SAP NetWeaver 7.0 including EHP2 .... 17  
12. From CMS with CTS to CM Services in SAP NetWeaver 7.3 or higher ................ 17  
13. From CM Services in SAP NetWeaver 7.0 including EHP1 to CM Services in SAP NetWeaver 7.0 including EHP2 ................................................................. 18  
14. From CM Services in SAP NetWeaver 7.0 including EHP1 to CM Services in SAP NetWeaver 7.3 or higher ................................................................. 23  
15. From CM Services in SAP NetWeaver 7.0 including EHP2 to CM Services in SAP NetWeaver 7.3 or higher ................................................................. 23  

Appendix ...................................................................................... 24
1. Business Scenario

You can use the CM Services (Change Management Services) e.g. to manage your development configurations, to transport activities directly from within the SAP NetWeaver Developer Studio or to transport SCAs. The CM Services are closely integrated with the mechanisms of the enhanced Change and Transport System (CTS+). In the remainder of this document, the abbreviation CTS is used for the system where the transport landscapes are configured and for the fact that CTS can also be used for non-ABAP transports.

Starting with enhancement package 1 for SAP NetWeaver 7.0, SAP provides the CM Services. If you would like to transport activities, you can transport the sources that had been changed if you are on enhancement package 1 for SAP NetWeaver 7.0 at least. If you are on enhancement package 2 for SAP NetWeaver 7.0 at least, you can in addition transport the SDAs that have been rebuilt of the changes done in an activity.

SAP NetWeaver 7.3 provides additional services. The Synchronize Service has been added. It can replace the Upload System that you had to add to your system landscape in previous releases. The History Service provides information about what has been synchronized, exported and imported. If you used or use CMS, you might want to know how and under which conditions you could start using CM Services or how you can migrate existing development tracks from CMS to CM Services and CTS. This guide describes How to switch to CM Services.

Also if you already use CM Services and would like to upgrade to a higher release, you can do some changes in your configuration or switch to other options. Check the appropriate chapter in this guide for details.

Note

It is not required to do changes to your existing configurations. You can always continue working with the setup that you used before an upgrade.

Take a look at SAP Note CMS / CM Services – What to use in which scenario: 1775838 to get some ideas when it makes sense to use one or the other option.

This guide also explains what you have to do if you started using CM Services in enhancement package 1 for SAP NetWeaver 7.0 and would like to switch to the new options offered in enhancement package 2 for SAP NetWeaver 7.0.

CAUTION

Please plan your migration to CM Services carefully. Switching from CMS to CM Services requires that you release open activities and transport SCAs through your complete landscape. This means that all changes done in your development system reach all other systems of your landscape. Take into consideration that this includes an update / a deployment for your productive system.

This guide does not provide an introduction to CM Services and how to configure them. The initial configuration for CM Services is explained in different guides available on SCN (http://scn.sap.com/docs/DOC-8576#NWDI).

You can start using the CM Services for one Java development project or by switching from CMS to CM Services for one track. It is not required to switch to CM Services for all the Java development in SAP NetWeaver that you might have. CMS and CM Services can be used in parallel.
2. Introduction

This guide assumes that you know what NWDI, CMS, CM Services and CTS are. If this is not the case, please go through the information linked in the chapter Background Information.

Depending on the process that you are currently using for managing your Java development in an SAP environment and where you would like to go, there are different things to do. So please read carefully through this chapter, choose the combination that fits to your needs and then go to the appropriate chapter describing the steps that are required for your set up.

At first, please think about what you are currently doing (choose one of the following)
1. No Java development with SAP Tools at all
2. Using NWDI and CMS
3. Using NWDI and CMS integrated with CTS
4. Using CM Services with enhancement package 1 for SAP NetWeaver 7.0 and CTS
5. Using CM Services with enhancement package 2 for SAP NetWeaver 7.0 and CTS

Now, please think about where you would like to go (choose one of the following).

a. Using CM Services with enhancement package 1 for SAP NetWeaver 7.0 and CTS
b. Using CM Services with enhancement package 2 for SAP NetWeaver 7.0 and CTS
c. Using CM Services with SAP NetWeaver 7.3 or up and CTS

What is your combination of answers? Go to the appropriate chapter or guide.

1 – a: Take a look at the guide “How To Setup CM Services for enhancement package 1 for SAP NetWeaver 7.0” http://scn.sap.com/docs/DOC-16163 on SCN.
1 – b: Take a look at the guide “How To Setup CM Services for enhancement package 2 for SAP NetWeaver 7.0” http://scn.sap.com/docs/DOC-16166 on SCN.
1 – c: Take a look at the guide ‘How To Configure CM Services in SAP NetWeaver 7.3 and up’ on SCN

2 – a: Chapter From CMS to CM Services in SAP NetWeaver 7.0 including EHP1
2 – b: Chapter From CMS to CM Services in SAP NetWeaver 7.0 including EHP2
2 – c: Chapter From CMS to CM Services in SAP NetWeaver 7.3 or higher

3 – a: Chapter From CMS with CTS to CM Services in SAP NetWeaver 7.0 including EHP1
3 – b: Chapter From CMS with CTS to CM Services in SAP NetWeaver 7.0 including EHP2
3 – c: Chapter From CMS with CTS to CM Services in SAP NetWeaver 7.3 or higher

4 – a: N/A
4 – b: Chapter From CM Services in SAP NetWeaver 7.0 including EHP1 to CM Services in SAP NetWeaver 7.0 including EHP2
4 – c: Chapter From CM Services in SAP NetWeaver 7.0 including EHP1 to CM Services in SAP NetWeaver 7.3 or higher

5 – a: N/A
5 – b: N/A
5 – c: Chapter From CM Services in SAP NetWeaver 7.0 including EHP2 to CM Services in SAP NetWeaver 7.3 or higher
3. General Recommendations

- Read SAP Note 1775838 ‘CMS / CM Services – What to use in which scenario’
- Use the CM Services on your NWDI.
- If your NWDI is not on SAP NetWeaver 7.3 or on enhancement package 1 or 2 for SAP NetWeaver 7.0 at least (depending on which version of CM Services you would like to use), upgrade the NWDI at first before doing any of the configuration changes described in this guide.
- You need a SAP NetWeaver Developer Studio which supports releasing activities. This is the case for the following versions:
  - SAP NetWeaver 7.3 or higher
  - SAP NetWeaver Composition Environment 7.20
  - SAP enhancement package 2 for SAP NetWeaver 7.0 or higher.
  - SAP enhancement package 1 for SAP NetWeaver 7.0 SP 10
  - SAP NetWeaver 7.0 SP 25
- Refer to SAP Note 1361909 for details and updates
- As CTS system, you can use SAP Solution Manager or an SAP NetWeaver 7.31 (or higher) system (AS ABAP and AS JAVA).
- If you decide to use the activity transport or the activity-based SDA transport, use it in combination with the SCA transport. E.g. if you did a lot of changes to very different DCs, you should transport the complete SCA instead of a lot of source files.
- Take a look at SAP note 1361909 for the latest updates on CM Services.

The following figure shows the systems which are involved in the process and recommends where to run which component.

Figure 4: Recommendations what to run where

⚠️ CAUTION

The figure above shows the box ‘Deploy WS’ twice. If you plan to use CM Services as the only CTS scenario, you would only need one Deploy WS on the system where the CM Services are used. But if you are using or plan to use CTS for transporting e.g. Portal objects as well, you might need the Deploy WS on the CTS system. For transporting e.g. Portal objects, the recommendation is to use the Deploy Web Service on the CTS.
system for this use case. If you are planning to use the activity-based SDA transport, you will also need the Deploy Web Services on the CTS system (see appropriate chapters for details).

4. Background Information

Documentation about CTS on the SAP Help Portal

For enhancement package 1 for SAP NetWeaver 7.0:
http://help.sap.com/saphelp_nw70ehp1/helpdata/en/bb/6fab6036a146baa58e42fac032ab7b/frame set.htm

For enhancement package 2 for SAP NetWeaver 7.0:
http://help.sap.com/saphelp_nw70ehp2/helpdata/en/bb/6fab6036a146baa58e42fac032ab7b/frame set.htm

For SAP NetWeaver 7.3
http://help.sap.com/saphelp_nw73/helpdata/en/bb/6fab6036a146baa58e42fac032ab7b/frameset.htm

Documentation about CM Services in on the SAP Help Portal

For enhancement package 1 for SAP NetWeaver 7.0
http://help.sap.com/saphelp_nw70ehp1/helpdata/en/84/1fabea09f048c69b48d8e08de38c95/frame set.htm

For enhancement package 2 for SAP NetWeaver 7.0:
http://help.sap.com/saphelp_nw70ehp2/helpdata/en/84/1fabea09f048c69b48d8e08de38c95/frame set.htm

For SAP NetWeaver 7.3
http://help.sap.com/saphelp_nw73/helpdata/en/bb/6fab6036a146baa58e42fac032ab7b/frameset.htm

Best Practice Guide for Implementing CTS (does not include CM Services):
http://scn.sap.com/docs/DOC-16160

Related How-To Guides on SCN:

For CM Services in enhancement package 1 for SAP NetWeaver 7.0, refer to:
http://scn.sap.com/docs/DOC-16163

For CM Services in enhancement package 2 for SAP NetWeaver 7.0, refer to:
http://scn.sap.com/docs/DOC-16166

For CM Services in SAP NetWeaver 7.3 or higher, refer to:
https://scn.sap.com/docs/DOC-51948

SAP Notes:

1361909 for updates on CM Services.
1775838 CMS / CM Services – What to use in which scenario:

5. Assumptions

This guide assumes that

- You continue using the same NWDI that you already have in use. Upgrade / update your NWDI system if required before continuing with the instructions in this guide.
- You don’t upgrade / update your runtime systems in parallel.
You are using a three system landscape with DEV, QA and Prod – other landscapes are for sure possible and have to be configured in TMS accordingly.

6. Restrictions

There are some restrictions that you should take into consideration when working with CM Services (take a look at note 1361909 for updates):

- CM Services require an NWDS on enhancement package 1 for SAP NetWeaver 7.0 or enhancement package 1 for SAP NetWeaver Composition Environment 7.1 at least for releasing the activity to a transport request in CTS. If you (plan to) develop Web Dynpro for Java, you have to make sure that the Runtime Systems and the NWDS are on the same release and SP level. See note 718949 for details. If you develop Web Dynpro for a runtime system which is not yet on enhancement package 1 for SAP NetWeaver, you could use one NWDS on the release that fits to your runtime system for developing and another one which supports CM services for releasing the activities. Same applies accordingly to SAP enhancement package 2 for SAP NetWeaver 7.0.

- Importing Development Configurations managed in CTS into your NWDS is only possible if your NWDS is on enhancement package 1 for SAP NetWeaver 7.0 at least. If you have to work with an older release of NWDS, you have to download the development configuration in the Development Configuration UI manually and import it into your NWDS from a file system. The download could be done by an administrator. He could then send the development configuration e.g. by mail to the developers or put it on a share.

⚠️ Important

This has to be done after each change to the development configuration.

- Development Configurations managed by CTS are named like the system in TMS. This means that the name of the development configuration is the same as the SID of the development system that you created in TMS. Therefore the name of the development configuration consists of three letters. It is not possible to name Development Configurations differently.

- SCA-Export: patch name can be set by customers, SP / patch level only by SAP

- Solution for maintenance tracks in CMS as described in a blog on SCN (http://scn.sap.com/people/marion.schlotte/blog/2006/03/30/best-practices-for-nwdi-track-design-for-ongoing-development) is not supported for CM Services. Take a look at the article Landscape Setup for Ongoing Java Development with CM Services in CTS+ on SCN to learn how this could be managed for CM Services if you are using enhancement package 2 for SAP NetWeaver 7.0 at least.

- Enhancement package 1 for SAP NetWeaver 7.0: ‘exclude from deployment’ is not supported for CM Services.

- Enhancement package 1 for SAP NetWeaver 7.0: build-options are not available for CM Services.
7. From CMS to CM Services in SAP NetWeaver 7.0 including EHP1

If you would like to use CM Services with enhancement package 1 for SAP NetWeaver 7.0, please check beforehand whether the functionality provided fulfills your needs. Take the restrictions described above into consideration.

If you would like to use the CM Services to transport SCAs only, the procedure is almost the same as in CMS. In this case, you only need one Development Configuration for the development system.

To go from CMS to CM Services and to use the Activity transport, use the following procedure:

1. Tell your developers to check in and / or revert all open activities. Let them activate all activities that are not yet activated and release them afterwards. Finally, the developers should remove the development configurations managed in CMS from their NWDS.

   **Note**
   
   You can only use three letter acronyms as names for the development configurations if you are working with CM Services connected with CTS. Therefore, the ‘old’ development configurations created in CMS can’t be used any more.

2. Go to CMS Web UI, consolidate all released change requests (in case you are using a consolidation system), assemble your SCA(s) and deploy it to all runtime systems that might be connected to Test or Prod by transporting it through the track. Export all SCAs (developed and required) of the track (tab Assembly) and store them locally or on the CMS server by using the destination path. The following figure shows the screen in CMS where the SCA(s) can be exported.

   ![Figure 4: Exporting SCAs from CMS](image)

3. Take a look into the guide ‘How To...Setup CM Services’ in enhancement package 1 for SAP NetWeaver 7.0. Follow the steps described in the chapters ‘Configuring Connections’ and ‘System Landscape Configuration’ to set up your landscape for the activity transport. You should create systems and transport routes including all the runtime systems where deployments should go to before starting any transport. Don’t execute the steps describing the basic setup for NWDI. Make sure that you use the guide made for enhancement package 1 for
SAP NetWeaver 7.0. If this had not been done before, you would also have to configure CTS in general.

**Important**

As described in the guide How To... Setup CM Services: If you would like to use the activity transport, create a consolidation and a delivery route between your development and test system in TMS. The consolidation route is required to be able to create new requests for the DEV and to import them into QA. The delivery route is required to transport the requests containing the SCAs (the ones that are required for your development and those that you developed yourself in CMS) coming from the upload system to QA (see next step).

4. Use the upload system to create a transport request and attach all the SCAs that you exported before in step 2.

**Tip**

If you would like to keep the history of your changes in DTR, you could use the replication mechanism offered in DTR. Check the SAP Help Portal for details ([http://help.sap.com/saphelp_nw70ehp1/helpdata/en/46/5d032c1e661cbee10000000a11466f/frameset.htm](http://help.sap.com/saphelp_nw70ehp1/helpdata/en/46/5d032c1e661cbee10000000a11466f/frameset.htm)). Do only replicate the workspaces dev/inactive and dev/active to your new workspaces of the development system (Folder name in DTR = SID in TMS, e.g.: [http://<dtrhost>:<dtrport>/dtr/ws/<TrackID>/<software component>/dev/active](http://<dtrhost>:<dtrport>/dtr/ws/<TrackID>/<software component>/dev/active) → [http://<dtrhost>:<dtrport>/dtr/ws/<SID>/<software component>/active](http://<dtrhost>:<dtrport>/dtr/ws/<SID>/<software component>/active). If you modified SAP components (e.g. CRM): Even when you replicate the workspaces you need to attach the SCAs of the software components you are modifying to the transport request as well.

If you need the history in other systems than DEV as well, replicate from the same source workspaces as done for the DEV system. If you don’t need the DTR history in QA and Prod, you can export SCAs in DEV (using Export UI) and import them to QA and Prod.

**Important**: The replication has to be executed before importing the transport request.

5. Go to transaction STMS on your CTS-system

- In case you created a development configuration for each system: import the transport request to all systems of your landscape.
- In case you created a development configuration for DEV only, import the transport request into DEV only.

6. Optional: if you used the replication of sources to keep the history of changes in DTR you need to do an initial SCA Export after the setup is done so that all old changes are marked as released in DTR and not shown as waiting in NWDS.

7. Let the developers know about the name of the new development configuration. It is the same as the SID of your development system. Tell them to import this configuration.
How To...Switch to CM Services

CAUTION

Only if you created development configurations for each system in your landscape: As you had to create a development configuration for each system in your landscape, they are now all visible to the developers when importing a new development configuration. Tell the developers to make sure that they use the one made for the development system.

8. Optional and only if you created development configurations for each system in your landscape: protect the workspaces of QA and Prod systems in DTR via ACLs if you would like to ensure that no-one does changes in QA or Prod directly. More information is available on the SAP Help Portal:
http://help.sap.com/saphelp_nw70ehp1/helpdata/en/21/53882f3fee0243b6c774e26ebed880/frameset.htm

9. You can now start working with the new configuration. Keep the CMS track as a fallback.

10. Delete the track in CMS that you don’t need any more as soon as you are sure that the new setup works fine. Take a look at the SAP Help Portal for details about deleting a track (http://help.sap.com/saphelp_nw70ehp1/helpdata/en/33/71fe94e1834af8b5bd3c0e1de5ab41/frameset.htm).

11. Decide on old Workspaces
- Delete the workspaces of your development configuration managed by CMS. Take a look at the SAP Help Portal for details
- Or protect them by ACLs so that no-one has writing permissions any more. Take a look at the SAP Help Portal for details

8. From CMS to CM Services in SAP NetWeaver 7.0 including EHP2

If you would like to use the Activity transport instead of CMS, you can follow the steps described in the previous chapter (From CMS to CM Services in SAP NetWeaver 7.0 including EHP1).

The service for maintaining your development configurations has changed, so please use the guide for SAP NetWeaver 7.0 including EHP2 to do the basic configuration for CM Services in any case (http://scn.sap.com/docs/DOC-16166).

If you would like to use the CM Services to transport SCAs, the procedure is almost the same as in CMS. In this case, you only need one Development Configuration for the development system.

You can find information on the Development Configuration Service on the SAP Help Portal as well:
http://help.sap.com/saphelp_nw70ehp2/helpdata/en/42/ad0e4f4d95421ea7e79e4c7252d8d/frameset.htm

If you would like to use the activity-based SDA transport instead of CMS, do the following:

1. Tell your developers to check in and / or revert all open activities. Let them activate all activities that are not yet activated and release them afterwards. Finally, the developers should remove the development configurations managed in CMS from their NWDS.

Note

You can only use three letter acronyms as names for the development configurations if you are working with CM Services connected with CTS. Therefore, the ‘old’ development configurations can’t be used any more.
2. Go to CMS Web UI, consolidate all released change requests (in case you are using a consolidation system), assemble your SCA(s) and deploy it to all runtime systems that might be connected to Test or Prod by transporting it through the track. Export all SCAs (developed and required) of the track (tab Assembly) and store them locally or on the CMS server by using the destination path.

3. Follow the steps described in the Guide ‘How To... Setup CM Services’ to set up your landscape for the activity-based SDA transport. Don’t execute the steps describing the basic setup for NWDI. Make sure that you use the guide made for enhancement package 2 for SAP NetWeaver 7.0.

   **CAUTION**
   For the activity-based SDA transport, you need a consolidation route between the upload system and development and another one between development and QA. In the case of Activity-based SDA transports there is no need for a delivery route between Development and QA (this is only required in case you would like to transport the activities directly).

4. Use the upload system to create a transport request and attach the SCAs that you downloaded before in step 2.

   **Tip**
   If you would like to keep the history of your changes in DTR, you could use the replication mechanism offered in DTR. Check the SAP Help Portal for details ([http://help.sap.com/saphelp_nw70ehp1/helpdata/en/46/5d032c1e661cbee10000000a11466f/frameset.htm](http://help.sap.com/saphelp_nw70ehp1/helpdata/en/46/5d032c1e661cbee10000000a11466f/frameset.htm)). Do only replicate the workspaces dev/inactive and dev/active to your new workspaces of the development system (Folder name in DTR = SID in TMS, e.g.: [http://<dtrhost>:<dtrport>/dtr/ws/<TrackID>/<software component>/dev/active](http://<dtrhost>:<dtrport>/dtr/ws/<TrackID>/<software component>/dev/active) → [http://<dtrhost>:<dtrport>/dtr/ws/<SID>/<software component>/active](http://<dtrhost>:<dtrport>/dtr/ws/<SID>/<software component>/active)).
   If you modified SAP components (e.g. CRM): Even when you replicate the workspaces you need to attach the SCAs of the software components you are modifying to the transport request as well.
   **Important:** The replication has to be executed before importing the transport request in TMS.

5. Go to transaction STMS on your CTS-system, import the request into DEV.

6. Optional: if you used the replication of sources to keep the history of changes in DTR you need to do an initial SCA Export after the setup is done so that all old changes are marked as released in DTR and not shown as waiting in NWDS.

7. Let the developers know about the name of the new development configuration. It is the same as the SID of your development system. Tell them to import this configuration.

8. You can now start working with the new configuration. Keep the CMS track as a fallback.

9. Delete the track in CMS that you don’t need any more as soon as you are sure that the new setup works fine. Take a look at the SAP Help Portal for details ([http://help.sap.com/saphelp_nw70ehp1/helpdata/en/33/71fe94e1834af8b5bd3c0e1de5ab41/frameset.htm](http://help.sap.com/saphelp_nw70ehp1/helpdata/en/33/71fe94e1834af8b5bd3c0e1de5ab41/frameset.htm)).

10. Decide on old Workspaces
    - Delete the workspaces of your development configuration managed by CMS. Take a look at the SAP Help Portal for details ([http://help.sap.com/saphelp_nw70ehp1/helpdata/en/94/f4de3f68d48f15e10000000a155106/frameset.htm](http://help.sap.com/saphelp_nw70ehp1/helpdata/en/94/f4de3f68d48f15e10000000a155106/frameset.htm)).
    - Or protect them by ACLs so that no-one has writing permissions any more. Take a look at the SAP Help Portal for details ([http://help.sap.com/saphelp_nw70ehp1/helpdata/en/c9/d94388f62c8f478eadd4d1902d7101/frameset.htm](http://help.sap.com/saphelp_nw70ehp1/helpdata/en/c9/d94388f62c8f478eadd4d1902d7101/frameset.htm) (Chapters ‘Privileges’ and ‘User Authorizations in the Design Time Repository’).
9. From CMS to CM Services in SAP NetWeaver 7.3 or higher

If you would like to use the CM Services instead of CMS in SAP NetWeaver 7.3 and higher, do the following:

1. Tell your developers to check in and / or revert all open activities. Let them activate all activities that are not yet activated and release them afterwards. Finally, the developers should remove the development configurations managed in CMS from their NWDS.

   **Note**

   You can only use three letter acronyms as names for the development configurations if you are working with CM Services connected with CTS. Therefore, the 'old' development configurations can’t be used any more.

2. Go to CMS Web UI, consolidate all released change requests (in case you are using a consolidation system), assemble your SCA(s) and deploy it to all runtime systems that might be connected to Test or Prod by transporting it through the track. Export all SCAs (developed and required) of the track (tab Assembly) and store them locally or on the CMS server by using the destination path.

3. Follow the steps described in the guide How To Configure CM Services in SAP NetWeaver 7.3 and Up to set up your landscape for the transport option that you would like to use. Don’t execute the steps describing the basic setup for NWDI. Make sure that you use the guide made for SAP NetWeaver 7.3.

4. Use the Synchronize Service as described in the guide to import the required SCAs and those that you downloaded before in step 2.

   **Tip**

   If you would like to keep the history of your changes in DTR, you could use the replication mechanism offered in DTR. Check the SAP Help Portal for details (http://help.sap.com/saphelp_nw73/helpdata/en/49/101b273d9d132ee10000000a421937/frameset.htm). Do only replicate the workspaces dev/inactive and dev/active to your new workspaces of the development system (Folder name in DTR = SID in TMS, e.g.: http://<dtrhost>:<dtrport>/dtr/ws/<TrackID>/<software component>/dev/active \rightarrow http://<dtrhost>:<dtrport>/dtr/ws/<SID>/<software component>/<active>).
How To...Switch to CM Services

If you modified SAP components (e.g. CRM): Even when you replicate the workspaces you need to import the SCA via the Synchronize Service.

**Important:** The replication has to be executed before using the Synchronize Service

**Note**

If you plan to use the transport of sources based on activities, you have to execute the Synchronize Service for every system in your landscape – not only for the development system.

5. Optional: if you used the replication of sources to keep the history of changes in DTR you need to do an initial SCA Export after the setup is done so that all old changes are marked as released in DTR and not shown as waiting in NWDS

6. Let the developers know about the name of the new development configuration. It is the same as the SID of your development system. Tell them to import this configuration.

7. You can now start working with the new configuration. Keep the CMS track as a fallback.

8. Delete the track in CMS that you don’t need any more as soon as you are sure that the new setup works fine. Refer to the SAP Library for details (http://help.sap.com/saphelp_nw73/helpdata/en/49/10d5ba3d9d132ee10000000a421937/fram eset.htm).

9. Decide on old Workspaces
   - Delete the workspaces of your development configuration managed by CMS. Take a look at the SAP Library for details (http://help.sap.com/saphelp_nw73/helpdata/en/49/12b3be9ba4105ee10000000a421 89d/frameset.htm).
   - Or protect them by ACLs so that no-one has writing permissions any more. Take a look at the SAP Library for details: http://help.sap.com/saphelp_nw73/helpdata/en/49/101a713d9d132ee10000000a4219 37/frameset.htm (Sub-Chapters ‘Privileges’ and ‘User Authorizations in the Design Time Repository’).

10. From CMS with CTS to CM Services in SAP NetWeaver 7.0 including EHP1

If you are using CMS together with CTS, then you should re-use the transport landscape that you already created in TMS for your Java development when connecting CMS to CTS. You would have to add some parameters to the systems in TMS.

If you don’t want to do so, you could also create new systems, configure new transport routes and delete the old ones.

**CAUTION**

Each SID can only be used once per domain (and all linked domains). If you decide to go for new transport routes, you would have to delete the old ones or invent new SIDs. Deleting the transport routes and re-using the SIDs also requires that you take care about the old queues. You are going to lose the history of transports for these systems. Inventing new SIDs would mean that your runtime systems are not represented by their real SIDs in TMS. This option should only be used in exceptional cases.

To switch from CMS with CTS to CM Services, do the following to keep your system landscape:

1. Tell your developers to check in and / or revert all open activities. Activate all activities that are not yet activated and release them afterwards. Finally, the developers should remove the development configurations managed in CMS from their NWDS.
Note

You have to do so because you can’t re-use the development configurations that you might have been using in CMS as the CM Services together with CTS only allow to use three letter acronyms as names for Development Configurations – which is the SID of the development system in CTS.

2. Go to CMS Web UI, consolidate all released change requests (in case you are using a consolidation system), assemble your SCA(s) and deploy it to all runtime systems that might be connected to Test or Prod by transporting it through the track. Export all SCAs (developed and required) of the track (tab Assembly) and store them locally or on the CMS server by using the destination path.

3. Do the basic configuration for CM Services as described in the guide ‘How To... Setup CM Services’ for enhancement package 1 for SAP NetWeaver 7.0 (http://scn.sap.com/docs/DOC-16163). Leave out all steps, where a system in TMS is going to be created.

4. Log on to your CTS system, start the transaction STMS and go to the System Overview.

5. Create an upload system – this system does not require a server. Details are described in the guide. Choose SAP System → Create → non-ABAP System. Maintain this system as source system so that you can later on create transport requests for this system.

6. In the System Overview, double click on the development system of your transport route, switch to the tab Transport Tool and switch to Edit mode.
7. Click on one line and then on *Insert Row*.

8. Open the F4 help in your new line and add the parameter *DI_SYSTEM*. Add *TRUE* as value.
9. Repeat the two previous steps to add the parameter DI_SLD_URL. If this is the first DI-
System that you create in your CTS System, add the URL of your SLD where the
Development Configurations have to be stored and make sure that the parameter
DI_SLD_URL is marked as Global. If you used this parameter before, it might be the case
that it is already in the parameters' list of your system. We recommend that you use the SLD
that you had / have in use for CMS.

**CAUTION**
The DI_SLD_URL parameter is a global parameter. It can only be defined once in your
CTS system. The same SLD has to be used for all Development Configurations.

10. Repeat step 7 and 8 to add the parameter DEPLOY_WEB_SERVICE. Use the name of the
deploy web service that you created when executing the appropriate steps in the guide (e.g.
CTSDEPLOY_DI) as value.
Hint: The destination, e.g. CTSDEPLOY_DI, needs to point to the server where CM Services
and CTS Deploy WS are running.

11. Repeat step 7 and 8 to add the parameter DEPLOY_URL. Insert the deploy URL of your
development system as value following the schema http://<host of target
system>:<system number>18> if your system is on a release below SAP NetWeaver
7.1. If you are using SAP NetWeaver 7.1 or above follow the schema http://<host of
target system>:<system number>04>.

12. Go to the menu path Goto → SDM/DC User/Password and enter the password for the SDM
or user and password if you are using a runtime system e.g. on SAP NetWeaver Composition
Environment or SAP NetWeaver PI 7.1 where the Deploy Controller is used instead of SDM.

13. Only for the very first DI system that you create: Go to the menu path Goto → Development
Infrastructure → DI Service User/Password and enter the user that you created when
executing the appropriate steps in the guide (e.g. NWDI_CMSADM) and his password.

14. Only for the very first DI system that you create: Go to the menu path Goto → Development
Infrastructure → DI SLD User/Password and enter the user that you created when executing
the appropriate steps in the guide (e.g. NWDI_CMSADM) and his password.

15. Save your changes and distribute the configuration.

16. Adapt all the target systems of your java landscape
   - Exchange the value for DEPLOY_WEB_SERVICE for all systems where you would
     like to import requests containing activities.
   - Add the parameter DI_SYSTEM (with the value true) to every system where the
     activities have to be imported.

17. Go back to the System Overview. Double click on your development system. Click on the
button Development Configuration.

18. The service for maintaining your Development Configuration comes up. Maintain it as
described in the guide ‘How To…Setup CM Services’ for enhancement package 1 for SAP
19. Repeat the previous step for all other systems where you added the parameter DI_SYSTEM=TRUE.
20. Go to transaction STMS and choose Transport Routes.

21. Switch to Edit mode.
22. Add the Upload system that you created to your system landscape and connect it to your development system via a consolidation route.
23. Only if you would like to transport activities through your landscape: add a delivery route from your development to your QA system.
24. Your transport route could now look like the following:
25. **Save your changes, distribute and activate them**

![Distribute and Activate](image)

Do you want to distribute and activate the configuration across all systems?

- Yes
- No
- Cancel

26. Use the upload system to create a transport request and attach the SCAs that you downloaded before.

**Tip**

If you would like to keep the history of your changes in DTR, you could use the replication mechanism offered in DTR. Check the SAP Help Portal for details ([http://help.sap.com/saphelp_nw70ehp1/helpdata/en/46/5d032c1e661cbee10000000a11466f/frameset.htm](http://help.sap.com/saphelp_nw70ehp1/helpdata/en/46/5d032c1e661cbee10000000a11466f/frameset.htm)). Do only replicate the workspaces dev/inactive and dev/active to your new workspaces of the development system (Folder name in DTR = SID in TMS, e.g.: `http://<dtrhost>:<dtrport>/dtr/ws/<TrackID>/<software component>/dev/active` → `http://<dtrhost>:<dtrport>/dtr/ws/<SID>/<software component>/active`).

If you modified SAP components (e.g. CRM): Even when you replicate the workspaces you need to attach the SCAs of the software components you are modifying to the transport request as well.

If you need the history in other systems than DEV as well, replicate from the same source workspaces as done for the DEV system. If you don’t need the DTR history in QA and Prod, you can export SCAs in DEV (using Export UI) and import them to QA and Prod.

**Important:** The replication has to be executed before importing the transport request in TMS.

27. Go to STMS on your CTS-system

- In case you created a development configuration for each system: import the request to all systems of your landscape.
- In case you created a development configuration for DEV only, import the request into DEV only.

28. Optional: if you used the replication of sources to keep the history of changes in DTR you need to do an initial SCA Export after the setup is done so that all old changes are marked as released in DTR and not shown as waiting in NWDS

29. Let the developers know about the name of the new development configuration. It is the same as the SID of your development system. Tell them to import this configuration.

**CAUTION**

Only if you created development configurations for each system in your landscape: As you created a development configuration for each system in your landscape, they are now all visible to the developers when importing a new development configuration. Tell the developers to make sure that they use the one made for the development system.

30. Optional and only if you created development configurations for each system in your landscape: protect the workspaces of Test and Prod systems via ACLs if you would like to ensure that no-one does changes in Test or Prod directly. More information is available on the SAP Help Portal: [http://help.sap.com/saphelp_nw70ehp1/helpdata/en/21/53882f3fee0243b6c774e26ebbed880/frameset.htm](http://help.sap.com/saphelp_nw70ehp1/helpdata/en/21/53882f3fee0243b6c774e26ebbed880/frameset.htm)

31. You can now start working with the new configuration. Keep the CMS track as a fallback.

32. Delete the track in CMS that you don’t need any more as soon as you are sure that the new setup works fine. Take a look at the SAP Help Portal for details.
33. Decide on old Workspaces
   - Delete the workspaces of your development configuration managed by CMS. Take a look at the SAP Help Portal for details
   - Or protect them by ACLs so that no-one has writing permissions any more. Take a look at the SAP Help Portal for details
     http://help.sap.com/saphelp_nw70ep1/helpdata/en/c9/d94388f62c8f478eadd4d1902d7101/frameset.htm (Sub-Chapters ‘Privileges’ and ‘Access Control Lists (ACL) in the DTR’)

11. From CMS with CTS to CM Services in SAP NetWeaver 7.0 including EHP2

The procedure described in the previous chapter still works fine with enhancement package 2 for SAP NetWeaver 7.0. So if you like to continue working as you did in enhancement package 1 or if you would like to use the Activity transport, you can follow the steps described in the previous chapter.

The service for maintaining your development configurations has changed, so please take a look at the guide ‘How To…Setup CM Services’ for enhancement package 2 for SAP NetWeaver 7.0 to do the basic configuration for CM Services also if you plan to configure the activity transport.

If you would like to use the SDA transport based on Activities, follow the steps described in the previous chapter but:
   1. Do not add the parameters DI_SYSTEM=TRUE to any other system than the development system (steps 6 to 8).
   2. Do not create a delivery route in TMS between your development and QA system (step 24).
   3. Import the transport request containing the SCAs into development only (step 28).

12. From CMS with CTS to CM Services in SAP NetWeaver 7.3 or higher

The procedure described in the chapter From CMS with CTS to CM Services in SAP NetWeaver 7.0 including EHP1 still works fine with SAP NetWeaver 7.3 or higher. So if you like to continue working as you did in enhancement package 1 or 2 for SAP NetWeaver 7.0 you can follow the steps described in the previous chapter.

Take a look at the guide How To Configure CM Services in SAP NetWeaver 7.3 and Up to do the configuration for CM Services in SAP NetWeaver 7.3 or higher.

If you would like to use the SDA transport based on Activities, follow the steps described in the previous From CMS with CTS to CM Services in SAP NetWeaver 7.0 including EHP1 but:
   1. Use the guide for SAP NetWeaver 7.3 (step 3)
   2. Do not create an upload system – use the Synchronize Service instead (step 5).

Note

If you plan to use the transport of sources based on activities, you have to execute the Synchronize Service for every system in your landscape – not only for the development system.
3. Do not add the parameters DI_SYSTEM=TRUE to any other system than the development system (steps 6 to 8).
4. Do not execute step 16
5. Do not execute steps 20 to 26.
6. Do not create a transport request containing the SCAs. Use the Synchronize Service to import the SCAs into the development system (step 28).

If you would like to use the transport of sources, follow the steps described in the previous From CMS with CTS to CM Services in SAP NetWeaver 7.0 including EHP1 but:

1. Use the guide for SAP NetWeaver 7.3 (step 3)
2. Do not create an upload system – use the Synchronize Service instead (step 5).

   Note
   If you plan to use the transport of sources based on activities, you have to execute the Synchronize Service for every system in your landscape – not only for the development system.

3. Do not create a delivery route in TMS between your development and QA system (step 24).
4. Do not execute steps 20 to 26
5. Do not create a transport request containing the SCAs. Use the Synchronize Service to import the SCAs into all systems with a development configuration (step 28).

13. From CM Services in SAP NetWeaver 7.0 including EHP1 to CM Services in SAP NetWeaver 7.0 including EHP2

First of all, what you configured for the CM Services in enhancement package 1 of SAP NetWeaver 7.0 still works fine after having installed enhancement package 2. This means, you can continue working as you did before installing enhancement package 2.

Nevertheless, there might be reasons for changing your configuration. E.g. if you like to use the option of activity-based SDA transport, you have to change your development configurations and the parameters of the systems in TMS.

Important
Make sure that you are using an SAP NetWeaver Developer Studio which supports releasing activities. Refer to the chapter General Recommendations for details.

CAUTION
It is not possible to use the Activity transport and the activity-based SDA transport for the same system landscape.

Do the following to switch from activity transport to activity-based SDA transport.

1. Tell your developers not to release any activities while you are changing the configuration.

   Note
   In this case, the developers will continue working with the same development configuration. It is not required to remove it from the NWDS.

2. Release all open transport requests and import all transport requests into all target system if they contain DIP files with activities (sources).

CAUTION
After having switched from activity transport to activity-based SDA transport, it will no longer be possible to import any transport request which contains DIP-files with sources only.
3. Log on to your CTS system (where you configured the transport routes), go to transaction STMS and open the System Overview. Double click on your test system.

4. As you are going to transport deployables in the future, a development configuration is not required for any other system than development any more. To remove the related parameter DI_SYSTEM, go to the Edit Mode, click on the parameter DI_SYSTEM and then on Delete Row.

5. Delete the parameter DI_SYSTEM from each system of your transport route which is not a development system (repeat step 4 for all target systems except the development system).

6. In STMS, go back to the System Overview and double click on your development system. Click on Development Configuration.
7. The Development Configuration Management opens up. On the tab Local Settings, you can find the section Transport Settings with the Export Mode. Specify the options that you would like to use. If you would like to use the activity-based SDA transport, choose Deployable Export - Activities and all of the options that you would like to offer to your users. You should always include the option to transport Software Components.

8. You can now start working with the changed configuration. Make sure that you use an SAP NetWeaver Developer Studio which supports releasing activities. Refer to the chapter General Recommendations for details.

9. Use the DI Configuration Web Service to delete the configurations from CM Service, CBS and SLD which are not needed anymore.
To do this, call http://<host>:<port>/DIConfigurationService/DefaultConfig → Test → deleteDISystem → fill all fields as in the screenshot. Enter the correct systemID for the system that you would like to delete. Press Send. (Repeat this for all the systems where you removed DI_SYSTEM=TRUE in STMS)

![Screenshot of deleteDISystem](image)

**Tip**

Workspaces in DTR will not be deleted automatically. To delete them refer to the SAP Library at:


**Recommendation**

After you have finished the configuration changes, you should transport the complete SCA through your landscape. Go to the Export Web UI and attach the SCAs that are relevant for the respective system landscape through your complete landscape.

**Note**

If you are using a system on a release lower that SAP NetWeaver 7.30: In the Export Web UI you can only attach one SCA at a time to a transport request, but you could use the same transport request for more than one SCA – so attach them one by one. This is only possible if your Transport Strategy is set accordingly and transport requests remain open after having attached an object. To learn more about the Transport Strategy, refer to the SAP Library at:


If you are on SAP NetWeaver 7.3 or higher, you can select more than one SCA at a time and attach them to a transport request.

Do the following if you used CM Services to transport SCAs in enhancement package 1 for SAP NetWeaver 7.0 and would now like to switch to activity-based SDA transport.

1. Log on to your CTS system, go to transaction STMS and to System Overview.
2. Double click on your development system.
3. Click on Development Configuration.

![Development Configuration](image)

4. The Development Configuration Management opens up. On the tab Local Settings, you can find the section Transport Settings with the Export Mode. Specify the options that you would like to use. If you would like to use the activity-based SDA transport, choose Deployable Export - Activities and all of the options that you would like to offer to your users. You should always include the option to transport Software Components.

![Transport Settings](image)

5. You can now start working with the changed configuration. Keep in mind that an SAP NetWeaver Developer Studio on enhancement package 2 for SAP NetWeaver 7.0 is required to be able to release DIP files containing SDAs to a transport request.
14. From CM Services in SAP NetWeaver 7.0 including EHP1 to CM Services in SAP NetWeaver 7.3 or higher

First of all, what you configured for the CM Services in enhancement package 1 of SAP NetWeaver 7.0 still works fine after having updated to SAP NetWeaver 7.3 or higher. This means, you can continue working as you did before updating to SAP NetWeaver 7.3 or higher.

Nevertheless, there might be reasons to change your configuration. E.g. if you like to use the option of activity-based SDA transport, you have to change your development configurations and the parameters of the systems in TMS. Another reason for changing the configuration might be that you would like to get rid of the upload system. SAP NetWeaver 7.3 offers the Synchronize Service to import SCAs.

If you would like to switch from transporting sources to transporting SDAs in SAP NetWeaver 7.3, the procedure described in the previous chapter is still valid.

You can keep the upload system until you are familiar with using the Synchronize Service. The upload system does not hinder you from using the Synchronize Service.

To get rid of the upload system, do the following in addition to what is described in the previous chapter before you execute the synchronize service:

1. Make sure that there are no open transport requests in the upload system any more. If this is the case, release or delete them – decide on whether you need the content
2. Transport all released transport requests that were created in the upload system and are not yet transported (through your complete system landscape in case of source transports).
3. Delete the consolidation route between the upload and the development system
4. Delete the delivery route between the development and the following system (e.g. test system)
5. Delete the upload system.
6. Use the Synchronize Service to bring your workspaces and buildspace up to date. It depends on the release of the runtime systems, which SCAs are required. The Synchronize Service guides you through the steps.

Note

If you plan to use the transport of sources based on activities, you have to execute the Synchronize Service for every system in your landscape – not only for the development system.

15. From CM Services in SAP NetWeaver 7.0 including EHP2 to CM Services in SAP NetWeaver 7.3 or higher

First of all, what you configured for the CM Services in enhancement package 1 or 2 of SAP NetWeaver 7.0 still works fine after having updated your system to SAP NetWeaver 7.3 or higher. This means, you can continue working as you did before updating to SAP NetWeaver 7.3 or higher.

Everything that is described in the previous chapter for switching from the upload system to the Synchronize Service is still valid. But:

- If you were already using the SDA transport (and not sources)
  - you only have to import all open requests from the upload system into your development system

March 2014
You only have to delete the consolidation route between the upload and the development system. There is no delivery route between the development and the following system (e.g. test system) in this case that would not be required with the Synchronize Service any more.

**Note**

If you use the transport of deployables (SDAs), you only have to execute the Synchronize Service for the development system.

### Appendix

#### Appendix A - Abbreviations

The document uses several abbreviations. The long text for the abbreviations can be found in this table.

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Long Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>NW</td>
<td>SAP NetWeaver</td>
</tr>
<tr>
<td>EHP1</td>
<td>enhancement package 1 for SAP NetWeaver 7.0</td>
</tr>
<tr>
<td>EHP2</td>
<td>enhancement package 2 for SAP NetWeaver 7.0</td>
</tr>
<tr>
<td>NWDI</td>
<td>SAP NetWeaver Development Infrastructure</td>
</tr>
<tr>
<td>DTR</td>
<td>Design Time Repository</td>
</tr>
<tr>
<td>CBS</td>
<td>Component Build Service</td>
</tr>
<tr>
<td>CMS</td>
<td>Change Management Service</td>
</tr>
<tr>
<td>CTS(+)</td>
<td>(Enhanced) Change and Transport System</td>
</tr>
<tr>
<td>PI / XI</td>
<td>SAP NetWeaver Process Integration</td>
</tr>
<tr>
<td>SDM</td>
<td>Software Deployment Manager</td>
</tr>
<tr>
<td>NWDS</td>
<td>SAP NetWeaver Developer Studio</td>
</tr>
<tr>
<td>CE</td>
<td>SAP NetWeaver Composition Environment</td>
</tr>
</tbody>
</table>
www.sdn.sap.com/irj/sdn/howtoguides