Options and Lessons for Migrating from SAP Enterprise Portal to SAP NetWeaver Portal

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Learning Objectives

As a result of this session, you will be able to:

- Understand the migration procedure from EP 5.0/EP 6.0 to SAP NetWeaver
- Know the features and limitations of the migration tools for the portal platform and knowledge management
- Understand lessons learned from previous projects
- Evaluate the usage of the migration tools within a migration project
## Overview

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Migration Paths

Available Migration path (from SPS14)

EP 5.0 on WebAS 6.20
  → EP 5.0 SP 4
  → EP 5.0 SP 5
  → EP 5.0 SP 6

EP 6.0 on WebAS 6.20
  → EP 6.0 SP 1
  → EP 6.0 SP 2

EP 6.0 on WebAS 6.40
  → EP 6.0 on WebAS 6.40 SP Stack 04
  → EP 6.0 on WebAS 6.40 SR 1
  → EP 6.0 on WebAS 6.40 SPS 14/…
**System Requirements**

- **EP 5.0 ➔ EP 6.0 on WebAS 6.40**
  - Source system Portal Platform: EP 5.0 SP6 Patch 1 or higher
  - Source system KM: EP 5.0 SP6 P1 HF 10 or higher
  - Target system PP: SAP NetWeaver ’04 SR1 PP SPS14, newest SP14 patch or newest SPS (Any version after SPS14)
  - Target system KM: SAP NetWeaver ’04 SR1 CM&COLL SPS14 or newest SPS (Any version after SPS14)

- **EP 6.0 SP2 ➔ EP 6.0 on WebAS 6.40**
  - Source system Portal Platform: EP 6.0 SP2, Patch 5 or higher
  - Source system KM: EP 6.0 SP2 Patch 5, hotfix 4 or higher
  - Target system PP: SAP NetWeaver ’04 SR1 PP SPS14, newest SP14 patch or newest SPS (Any version after SPS14)
  - Target system KM: SAP NetWeaver ’04 SR1 CM&COLL SPS14 or newest SPS (Any version after SPS14)

**Important remark:** You can now install the most current SP on your target system, starting with SPS14!
EP 5.0 → EP 6.0 on WebAS 6.40 (source always W2K!)

- Target OS/DB combinations:
  - W2K, W2K3/Oracle 9.2
  - Solaris/Oracle 9.2
  - HP-UX 11(i)/Oracle 9.2
  - AIX 5.2/Oracle 9.2
  - United Linux/Oracle 9.2
  - Red Hat Linux/Oracle 9.2

- Remark: NO database switch possible!

EP 6.0 SP2 → EP 6.0 on WebAS 6.40

- Same OS as source system (except W2K è W2K3)
- Same DB as source system

In case you require a target platform that is not mentioned above, you can use the heterogeneous Java system copy after the migration (please refer to SAP Notes 785848 and 795267)
A registration key is required to enable the use of the Enterprise Portal (EP 5.0 and EP 6.0 SP2) and KM migration tools.

To obtain the registration key, you have to open a customer message and provide information about the migration plans according to SAP Note 854791.

The migration key is valid for:
- The Enterprise Portal and KM migration
- All landscapes (TEST\PROD..)
General Remarks

Important SAP Notes:

- **EP 5.0**
  - 732461: Migration Enterprise Portal 5.0 SP6 to NetWeaver ’04 – Central Note
  - 692418: Migration of User Management
  - 703034: Troubleshooting Migration

- **EP 6.0**
  - 732458: Migration Enterprise Portal 6.0 SP2 to NetWeaver ’04 – Central Note
  - 777176: Troubleshooting Migration

Documentation:

- **HowTo Guide:** “How To … Migrate from SAP Enterprise Portal 5.0 to SAP NetWeaver ’04” (SAP Service Marketplace Alias/nw-howtoguides)

- **HowTo Guide:** “How To … Migrate from SAP Enterprise Portal 6.0 SP2 to SAP NetWeaver ’04” (SAP Service Marketplace Alias/nw-howtoguides)
One-Stop Shopping

On SDN at: https://www.sdn.sap.com/irj/servlet/prt/portal/prtroot/docs/library/uuid/f7bdc38e-0701-0010-e5ab-ac126dc11aa2

Migration to SAP NetWeaver Portal as part of SAP NetWeaver 04

To help customers reduce costs, SAP offers its EP 5.0 and EP 6.0 SP2 customers tools for migrating their portal directly to SAP NetWeaver 04.

SAP NetWeaver Portal as part of NetWeaver '04 introduces new functionality and new navigation and operational concepts.

As the migration of SAP NetWeaver Portal is a large-scale project, we recommend that you familiarize yourself with SAP NetWeaver Portal based on SAP NetWeaver '04 before beginning the migration process.

For general information, visit SAP NetWeaver Portal.

This page highlights the main differentiation for each of the source releases. The information will facilitate the preparation for the migration as well as the execution of the migration project.

From SAP EP 6.0 SP2 to SAP NetWeaver '04 SP5 14 (and higher)

Information for the preparation of the migration

Planning an EP migration project

Information for the execution of the migration project

Guide: How to Migrate from SAP NetWeaver Portal 6.0 SP2 to SAP NetWeaver 04

Central note: Migration NetWeaver Portal 6.0 SP2 to Net'04

Migration tools: EP 6.0 TO NW04 MIGRATION TOOLS

From SAP EP 5.0 SP6 to SAP NetWeaver '04 SP5 14 (and higher)

Information for the preparation of the migration

Successful migration projects: NetWeaver Portal Migration - Real Life Experiences

Planning an EP migration project

Information for the execution of the migration project

New features of NW04 SAP EP based on SAP NetWeaver '04: Documentation

Migration News

New SAP NetWeaver 2004 Portal Migration Tools Released for SP14 (and higher)

End of Maintenance for SAP NetWeaver Portal 5.0

Knowledge Corner

Migration Forum

Management aspects

Portal: End of maintenance

SAP 5.1-2 Maintenance Strategy

eLearnings

BCT - SAP EP 6.0 on SAP Web DS 6.40 Learning Maps


Webinars

Planning an EP Migration Project

Migration of EP 5.0/EP 6.0 to SAP NetWeaver '04

EP Migration - Real Life Experiences

Webinars

New Version of EP Migration Tools Available

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Where to Get the Migration Tools

The Migration Tools are available on the Service Marketplace on
http://service.sap.com/swdc ➔ Download ➔ Support Package and Patches ➔ Entry
by Application Group ➔ SAP NetWeaver ➔ SAP NETWEAVER ➔ SAP NetWeaver 04
➔ Entry by Component ➔ EP Migration*

Support Packages and Patches

Support Packages and Patches ➔ SAP NetWeaver ➔ SAP NETWEAVER ➔ SAP NETWEAVER 04 ➔ Entry by Component ➔ EP
Migration

EP Migration

- NW04 SR1 EP 5.0 MIGRATION
- NW04 SR1 EP 6.0 MIGRATION

- Download the archives

- Extract the archive with SAPCAR (see Note 212876). The tool can be
downloaded from http://service.sap.com/patches ➔ SAP Software Distribution
Center ➔ SAP Support Packages & Patches ➔ Entry by Application Group
Additional Components*

- The archive contains the migration tool(s)

* Requires login credentials to the SAP Service Marketplace
The NetWeaver Portal Migration has its own home page on SAP’s Service Marketplace. You can view it at: http://service.sap.com/nw-epmig*

*S Requires login credentials to the SAP Service Marketplace

- Migration requires setting up a new EP 6.0 on the WebAS 6.40 system. After migration, the source server can be shut down.

**Enterprise Portal 5.0 SP6**

EP 5.0

- KMC Objects and Config
- Portal Content + UM Data

EP 6.0 on NW ’04

**Enterprise Portal 6.0 SP2**

EP 6.0 SP2

- KMC Objects and Config
- Portal + UME DB Objects

EP 6.0 on NW ’04
SAP provides migration tools to enable migration from EP 5.0/EP 6.0 to NW ’04.

There are additional tasks involved in a migration project.

The time of the migration process for running the migration tools depends on:
- Number of portal objects (worksets, roles, iViews, personalized objects)
- Size of the content management database
- Computer speed and memory
- Network speed
- Number of portal users

The effort involved in the whole project depends on:
- Quantity of customer modifications/developments
- Usage of new features in new system (delegated admin, ACLs, etc.)
- Platforms

Make sure you are familiar with the NW version of EP6 – especially if you’re coming from EP5.
Migration Process Overview

1. Install SAP NetWeaver ’04 SP Stack 09 plus SPS14 (or higher)
2. Backup source and target
3. Prepare source and target system
4. Migrate CM
5. Migrate Portal
6. Perform post processing
7. Migrate TREX
Overview

KMC Migration

Migration of EP 5.0

Migration of EP 6.0 SP2

Lessons Learned

Wrap-up
Knowledge Management Migration Tools – Overview

Basic idea of the Database (DB) migration tool

- Migration tool connects directly to source DB
- Migration tool writes data to the target DB via OpenSQL

Migration Flow (main steps)

- Determine the servlet path of the source system defined in the configuration file, config_local.properties
- Shut down the source portal (except for the database)
- Execute the migration tool on the source system (MigrationInfoExporter)
- Execute the migration tool on the target system
  - Generate reports
  - Merge “etc.” directories
  - DB migration
  - Configuration migration
- Do not start the source portal before finishing the DB migration!
Overall Connectivity

source

EP6 SP2 DB (wcm)

Config Export(s)

Migration Tool

OpenSQL

WebAS DB

target

EP6 on WebAS 6.40
KM Migration Tool for Target System

KMC
Optional: Performing Tasks identified by Reports

Cluster IDs need to be maintained

Assignment of scheduler jobs to the former cluster instances needs to be maintained

Import the Compatibility Package (attached to SAP Note 640634)

Remark: This step is only necessary if you wish to use the EP 5.0 iViews in your SAP NetWeaver ’04 Portal. This package is not necessary if you migrate to an EP 6.0 Portal.

Initialize Ad Hoc Workflow Templates and Object Types

Please refer to the respective documentation and SAP Notes for a full list
TREX Migration

- Install TREX 6.1 on the TREX source system (at least TREX 6.0 SP1)
- Run the migration scripts in test mode
- Run the migration scripts
- Perform post migration Activities

For more information about the migration procedure, see SAP Service Marketplace at: http://service.sap.com/instguidesnw04
Upgrade ➔ Cross-NW ➔ Component Migration Guide – Search and Classification (TREX)*

Collaboration Rooms EP 6.0

- No separate migration for Collaboration Rooms EP 6.0
- Migration through:
  - KM migration
  - Portal migration

* Requires login credentials to the SAP Service Marketplace
Limitations

The target system has to be empty; all content/configuration inside the target system will be overwritten.

It is not possible to merge multiple KMs into one NW ’04 portal.

EP 5.0 Collaboration Rooms are not migrated to SAP NetWeaver ’04 collaboration rooms.

- Recommendation: Recreate Collaboration Rooms in SAP NetWeaver ’04
- In case it is required to run EP 5.0 Collaboration Rooms in the SAP NetWeaver ’04 system, an additional package is necessary (please contact your SAP account representative).

No migration of Real Time Collaboration (RTC) available.

The migration of the development environment is a prerequisite to work with the customer-specific development components in SAP NetWeaver ’04.

Please refer to the respective documentation and SAP Notes for a full list.
EP 5.0 Migration Tool Overview

Basic idea of the migration tool

- Integrated into the SAP NetWeaver ’04 portal
- Automated tool requiring some pre- and post-migration steps
- Data transfer from the source system takes place on the basis of single SQL statements and direct LDAP connection
- Data transfer to the target system takes place via API calls

Migration Flow (main steps)

- Shut down source system (except database)
- Copy UM Configuration to target system
- Copy PCD to target system
- Run migration tool in SAP NetWeaver ’04 system
Overall Connectivity

Source:
- EP5 DB
- Corp LDAP
- Portal LDAP

Target:
- FS UM Config
- EP5 FS PCD
- WebAS DB
- Migration Tool

Migration Tool:
- EP6 on WebAS 6.40
Shut down the EP 5.0 portal before the migration; only the DB has to be up!
Post Processing

Styles

- Export styles from the EP 5.0 system
- Import styles to SAP NetWeaver ’04 system and adapt missing style classes manually

Content

- Custom developments may need adaptation
  - Broken links
  - HTTP 404 – File not Found
- Proxy configuration
- Establish trust-relationship for Single Sign-On (SSO) to SAP systems
- Content assigned to portal_user role has to be reassigned to eu_role

Please refer to the respective documentation and SAP Notes for a full list.
Limitations

It is recommended that the target portal is empty because existing content inside the target portal might be overwritten. In an EP5 migration, only the “EP 5.0 Migrated Content” folder would be overwritten.

Target and source portals must have the same components installed (portal or portal and KM)

It is not possible to merge multiple EP5 SP6 portals into one NW ’04 portal

It is not possible to change the DB vendor during migration

From the .NET iViews, only URL and Yahoo iViews are migrated

- .asp files are not migrated
- Not all URL iView tags are supported (e.g., <DBHOST Port> is supported)
- iView Catcher iViews don’t work after migration

Theme personalization is lost after migration

It is not possible to migrate unifier projects

Customer-defined portal layouts are not migrated

Please refer to the respective documentation and SAP Notes for a full list
Basic idea of the migration tool

- Migration tool based on SAPinst
- After migration, the portal is on newest SPS (starting with SPS14)
- Migration uses direct DB connections

Migration Flow (main steps)

- Download UME data from source system
- Shut down source system (except database)
- Run migration tool
  - Migration of SP2 database tables to SPS9/SPS14:
    - For SQL BCP command (bulk copy) is used
    - For Oracle, import and export commands are used
  - Import of UME data
  - Redeployment of Portal SDAs
EP6 SP2 DB

UME Config

Migration Tool

WebAS DB

EP6 on WebAS 6.40

Overall Connectivity
Migration Tool Based on SAPinst

Start Execution

The current product will be installed with the following parameters. To proceed, choose Start, to change values, choose Back.

Dialog "Oracle Configuration > Oracle Driver"
Path to classes12.jar

Dialog "User Management > SP2 UM Configuration"
Path to UM configuration

Dialog "Portal > Schema Connection (Source System)"
Database Host
Database ID (DBSID)
Oracle Listener Port
Portal Schema

Dialog "Portal > Schema Connection (Target System)"
Database Host
Database ID (DBSID)
Oracle Listener Port
Portal Schema
Support Platform Integration

The support platform is a SAP-proprietary testing engine for running tests and fixes on portal systems.

First introduced with SPS13

Migration integration starting with SPS14

Integration with the tools enables the automatic execution of the migration system prerequisites checks.

Facilitates the execution of the post-migration tests.

Helps eliminate the common configuration errors that might lead the migration to fail.
Starting the Support Platform Service

If you get the following popup during the running of the migration tool, you should start the Support Platform service. If you do, you will need to re-run the migration tool.

Do the following to start the service:

■ Log on to the J2EE Visual Admin tool and go Server ➔ Services ➔ Deploy

■ In the Deployed Components pane, go to Deploy Service ➔ Server ➔ servlet_jsp ➔ sap.com/con.sapportals.supportplatform

■ Choose Start Application and in the window that opens, which shows all the server nodes checked, choose OK
Deploy KM SDA files in case KM had been installed (after deployment of a restart of the J2EE Engine is necessary)

Patching is no longer required with SPS14!

- It is recommended that the NetWeaver Portal be installed and patched to SPS14 (or higher) prior to starting the migration

Some manual post processing steps:

- PCD configuration
- web.xml adaptations
- Testing of custom Java components (check Javadocs for changes between SP2 and NetWeaver)

Please refer to the respective documentation and SAP Notes for a full list.
Limitations

It is recommended that the target portal is empty because existing content inside the target portal will be overwritten.

It is not possible to merge multiple EP 6.0 SP2 portals into one NW ’04 portal.

Target and source systems have to have the same components installed (e.g., if the source has Portal + KM the target must also have Portal + KM installed).

No cross platform (operating system) migration.

No cross DB migration.

No supported changes for UME data sources (Note 780679).

Theme personalization is lost after migration.

Files in the file system are not migrated.

Please refer to the respective documentation and SAP Notes for a full list.
Overview
KMC Migration
Migration of EP 5.0
Migration of EP 6.0 SP2
Lessons Learned
Wrap-up
Migration Lessons Learned

Migration is much more than just running the SAP migration tools

- It is a project
- Plan and handle it like a project (see KHNC “Planning an EP Migration Project” from 12 May ’05)

Parallelize steps, optimize time schedule

- Many steps can be prepared beforehand or done in parallel to other tasks
- e.g., perform PCD copy while KM migration is running (EP 5.0)

Migration projects require know-how in many different areas. Therefore, involve people with the required know how:

- Database administrator
- OS administrator
- SAP EP 5.0/EP 6.0 SP2 technical expert
- SAP NetWeaver ’04 technical expert
- SAP EP application expert (PP, KMC, etc.)
UME configuration considerations are important
- Evaluate user management strategy within your company
- Implement SAP Note 777640 before running an EP 5.0 migration
- Avoid future problems, e.g., moving users in a directory

Perform at least one real-life check of the complete migration
- Try to identify 99.9% of the potential problems (e.g., problems may occur by missing a piece in documentation, e.g., KM Reports, DB connection check)
- Even a “stupid” problem in any post migration step (e.g., custom configuration) may harm your migration schedule!
- This should include a load test

Use zip/rar archiving for copying PCD
- PCD consists of many small files
- Use, for example, SAPCAR (Winzip has limitations)
Migration Lessons Learned (cont.)

Backups are crucial
- Ideally, create a backup after every major step (SR1 install, KM migration, portal migration, etc.)
- In case of failures, you can start again at a certain point

Ensure fast network communication for:
- Migration tool communication
- Large file copies (e.g., for Java system copy, DB copy, and backups)

Ensure network connectivity to “old” components
- e.g., for EP 5.0 migration, connection to portal LDAP directory is required
- In case DNS resolution is not available, perform host file entries

Provide support connection to infrastructure
- Quick access in case anything goes wrong
- Prepare all necessary system and user information beforehand (just in case …)
Using Migration Tools or Selecting Alternative Ways

Migration using migration tools

- Using real DB
- Using shadow DB (Use caution with read/write persistence like LDAP and external CM repositories)

Migration with partial tool usage

- Using only KM migration tools
- Portal content must be recreated
- NOT suitable for EP 6.0 collaboration migration!

Migration without using migration tools

- New content built if necessary
- Transporting information from source to target
  - Manually
  - Using available portal/KMC features
- NOT suitable for EP 6.0 collaboration migration!
Using the Migration Tools or Not?

Questions often arise about whether or not to use the migration tools

Content import/export and UME import/export could be used as alternative methods for “migrating” a portal

The decision is always a tradeoff

- Certain content needs to be recreated
- When using KM, it is highly recommended to use the migration tools (at least for the KM piece of the migration)
- Migrating EP 6.0 collaboration rooms requires the usage of the portal and KM migration tools

Things that will be lost without migration tools:

- Personalization
- User mappings
- Role assignments
- etc.
**Considerations for Tests with a Production Shadow**

**Creation of shadow**
- Complete machine copy
- Offline backup of DB and required file systems is sufficient (→ source system for migration does not need to be operational)

**Caution**
- Ensure that the migrated test system does not write to persistent repositories of the production system, e.g.:
  - LDAP directory
  - External CM repositories (FS/DB, DB/FS, WebDAV, etc.)
- This could be ensured through:
  - Local network settings (e.g., hosts file)
  - Usage of private network
Overview

KMC Migration

Migration of EP 5.0

Migration of EP 6.0 SP2

Lessons Learned

Wrap-up
Summary

You are now able to:

- Understand the migration procedure from EP 5.0/EP 6.0 to SAP NetWeaver
- Know the features and limitations of the migration tools for the portal platform and knowledge management
- Evaluate the usage of the migration tools within a migration project
- Understand lessons learned from previous projects
Resources

Public Web:

SAP Developer Network:

- www.sdn.sap.com ➔ Events ➔ Webinars ➔ SDN Webinars Schedule*
  - February 2, 2005: Migration of EP5/EP6 to SAP NetWeaver ’04, Oliver Nocon
  - May 12, 2005: Planning an EP Migration Project, John Polus
  - June 15, 2005: Enterprise Portal Migration – Real Life Experiences, Oliver Nocon

SAP Developer Network:

- www.sdn.sap.com ➔ Enterprise Portal ➔ Enterprise Portal Migration

Migration to SAP NetWeaver Portal as part of SAP NetWeaver 2004


*Requires account to access
SAP Service Marketplace*

Migration Homepage: Alias /ep-mig

SAP Notes

732458: Migration Enterprise Portal 6.0 SP2 to NW ’04 – Central Note
732461: Central Note – Migration of EP and KM from 5.0 to NW ’04

*Requires login credentials
The central hub for the SAP technology community

- Everyone can connect, contribute and collaborate—consultants, administrators and developers
- Focus around SAP NetWeaver and SAP xApps

High quality of technical resources

- Articles, how-to guides, weblogs, collaborative areas, discussion forums and downloads, toolkits and code-samples

A collaboration platform, not a one-way street

- SAP experts from customers, partners and SAP

SDN is powered by SAP NetWeaver™

- Built on the SAP Enterprise Portal
- Featuring collaboration capabilities of SAP Knowledge Management
7 Key Points to Take Home

• The SAP NetWeaver Portal migration should be considered a project.

• Inventory the objects to be migrated. This helps in the planning of the project.

• Have all the appropriate people available for the planning and the actual cutover.

• Parallelize steps – determine which pieces of the process can be done at the same time.

• Consider UME strategy as part of the project.

• Make sure you have remote connections available to both the source and target systems in case support from SAP is needed.

• Practice … practice … practice. Test your migration as many times as possible so you know exactly how the production cutover will go.
Your Turn – Questions?

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