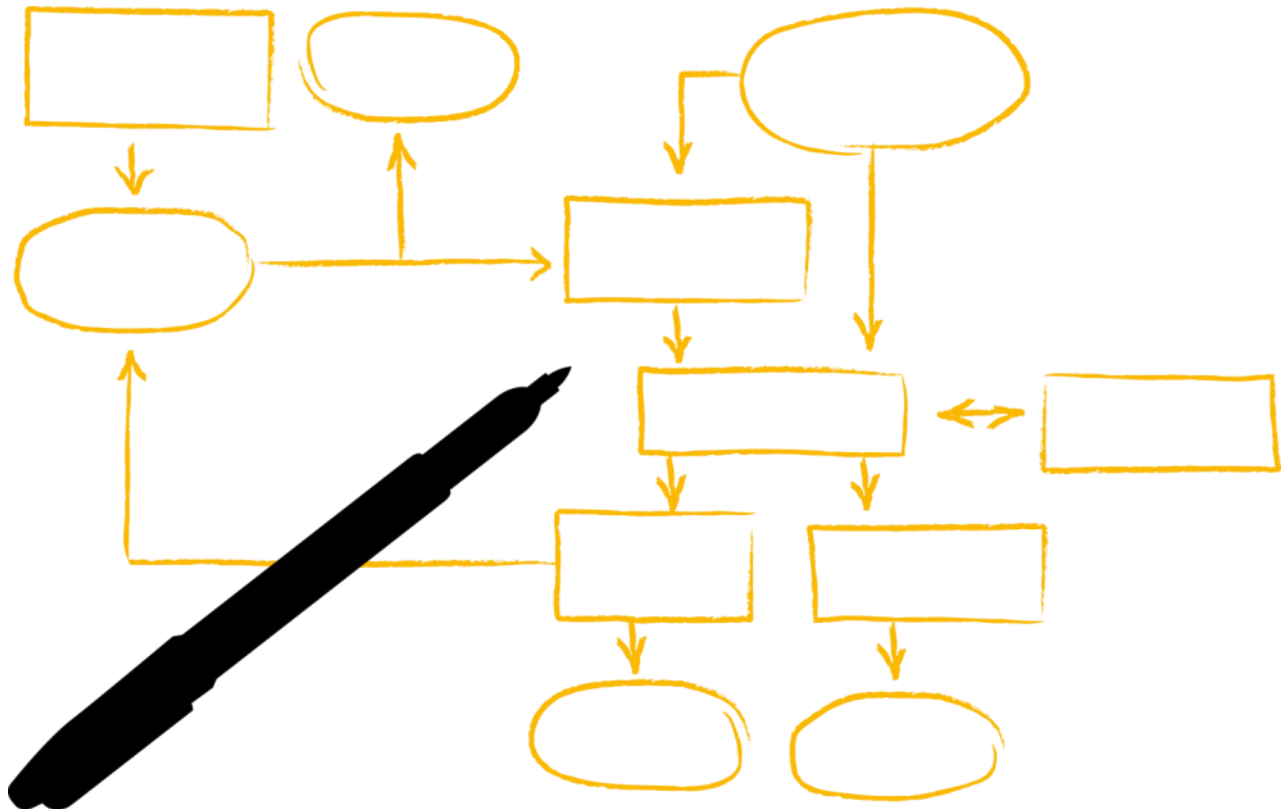# Technical Details + Process Flow – System Copy and Migration

Part of Software Provisioning Manager 1.0 SP 18

SAP SE – Product Management
October 2016

Public

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System copy and migration
Changes with Software Provisioning Manager 1.0 SP 18

General

- 7.x: New **unattended execution mode** of Software Provisioning Manager, using a parameter file
  - Software Provisioning Manager can be executed in unattended mode using `inifile.xml`, historically described in SAP Note 950619
  - To get an easier + more reliable procedure, we introduce new unattended parameter file `inifile.params`
  - Changed from bulky XML format to plain text format – making the file easier to understand, to use and to maintain with commented name-value pairs that resemble corresponding dialogs in dialog mode of Software Provisioning Manager
  - Flexible reuse of one parameter file for several use cases (using same technology stack [ABAP/Java/dual-stack] + same database platform [such as SAP HANA]) – for example, one parameter file for different product versions, versions of Software Provisioning Manager, options, parameters, and hosts vs. `inifile.xml` that is heavily bound to initial use case (same version of Software Provisioning Manager, same use case, practically same parameters – although changing of parameters technically possible, changes are required at several locations inside the XML file, which is error-prone)
  - Easier overall handling (such as of working directory)
  - For more information, see SAP Note 2230669

- Enablement of new product versions (such as of SAP S/4HANA 1610)

- Following the SAP Kernel strategy:
  - There are **two dedicated download archives** of Software Provisioning Manager for operating systems that are supported by SAP Kernel 720, but no longer supported by SAP Kernel 740 – see SAP Note 1680045 for a list of affected operating system versions
  - With release of Software Provisioning Manager 1.0 SPS 18, archives `70SWPM*.SAR` and `SWPM*.SAR` will stop working on those outdated operating system versions – instead, use dedicated `RMOSSWPM*.SAR` and `RMOS70SWPM*.SAR` archives on those outdated OS versions (*RMOS* stands for *Restricted Maintenance Operating System*)
  - Note that those dedicated RMOS archives will not get improvements in the future
  - SAP maintenance for RMOS archives will be finally restricted to the end of 2017
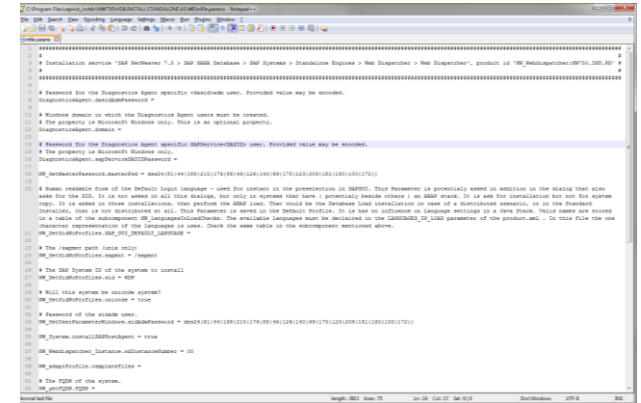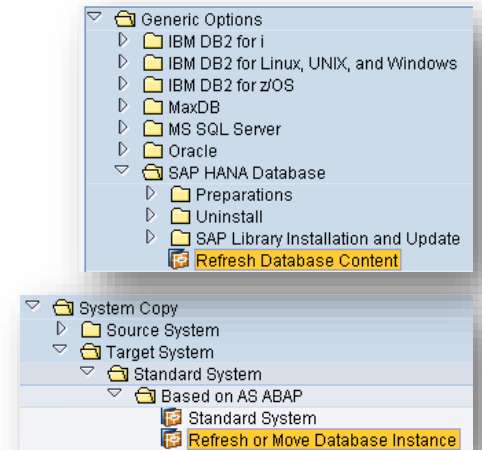
System copy and migration
Changes with Software Provisioning Manager 1.0 SP 18

General (continued)

- Platform-specific improvements:
  - Enablement of new platform versions (OS/DB)
  - Enhancements of database-specific features
    - Improved integration of AlwaysOn Support for Microsoft SQL Server – for more information, see the corresponding guide available at http://support.sap.com/sltoolset→ *System Provisioning*
    - Enhancements of IBM DB2 for z/OS CLI failover feature – for more information about the IBM DB2 for z/OS CLI failover feature, see SAP Note 1777242
    - Enhancements of multi-tenant DB on Oracle 12
  - Support of table space pools for IBM DB2 UDB for Linux, UNIX, and Windows

System copy

- 7.x: new option to only **refresh database content without reinstallation** of the database
  - Offered for ABAP systems running on SAP HANA so far
  - Called *Refresh Database Content* in Welcome screen of *Software Provisioning Manager*
  - Offered in addition to former *Database Refresh or Move* option, where database gets re-installed as part of the procedure – to better differentiate both options, the former option got renamed to *Refresh or Move Database Instance*
  - Allows optional use of backup instead of performing a load-based refresh

- 7.x: Option to prepare database for DMO migration to IBM DB2 UDB for Linux, UNIX, and Windows
  - Option to add another empty, but prepared (such as in terms of users and schema) database to a system as **preparation to run Database Migration Option** (DMO) of Software Update Manager for a combined update and database migration to IBM DB2 UDB for Linux, UNIX, and Windows
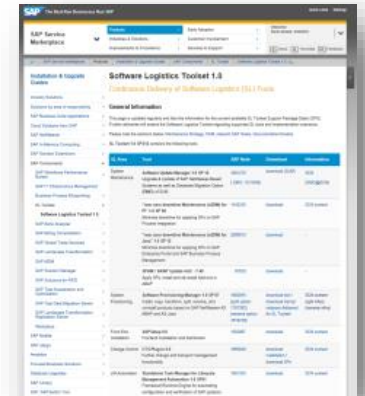
System copy and migration
1. Download: tool
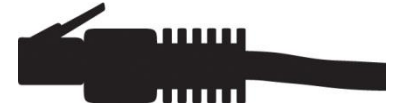
🟡 **You download latest version of *Software Provisioning Manager 1.0***
from SAP Support Portal at: http://support.sap.com/sltoolset

Choose the archive for your release and operating system version (for more information, see SAP Note 1680045) – for example:

- If your system is based on SAP NetWeaver **7.0x** and your OS is **not** supporting SAP Kernel 740, use the archive
 `RMOS70SWPM10SP<SP number>_<patch level>*.SAR`

- If your system is based on SAP NetWeaver **7.1x** and higher and your OS is **not** supporting SAP Kernel 740, use the archive
  `RMOSSWPM10SP<SP number>_<patch level>*.SAR`

SAP recommends that you download the latest version of *Software Provisioning Manager 1.0*,
as it contains latest corrections and is updated regularly – even if you have installation media available! ⚠️

System copy and migration
1. Download: documentation
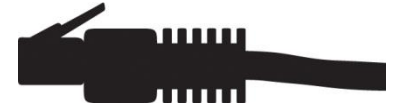
⬤ **You download latest version of system copy guide**,
also from SAP Support Portal at:
http://support.sap.com/sltoolset → *System Provisioning*

System copy and migration
2. Plan

You check constraints and released use cases listed in documentation

You check the product version and platform coverage
- See product availability matrix of SL Toolset in SAP Support Portal at: http://support.sap.com/pam
- Supported product versions for system copy:
  - Products based on SAP NetWeaver 7.0x and higher (including Support Releases)
  - All including standalone engines (such as SAP liveCache) and latest backward releases
- For more details, see:
  - System copy of systems based on SAP NetWeaver 7.0x: SAP Note 1768158
  - System copy of systems based on SAP NetWeaver 7.1x and higher: SAP Note 1738258

You read the SAP Note that contains latest information:
- SAP Note 1680045 (*Release Note for Software Provisioning Manager 1.0*)

System copy and migration
3. Prepare

You perform preparation tasks as described in guide

You unpack the *Software Provisioning Manager 1.0* archive:

- Make sure latest version of SAPCAR archiving tool is available on each host where you want to run *Software Provisioning Manager*
  - Available in SAP Support Portal at: http://support.sap.com/swdc → *Software Downloads* → Search for *SAPCAR*
  - For more information about SAPCAR, see SAP Note 212876

- Unpack *Software Provisioning Manager 1.0* archive to a local directory using the following command:
  ```
  SAPCAR –xvf <download directory>/<path>/<Archive>.SAR -R <unpack directory>
  ```

You start as described in the documentation:

- For example, double-click `sapinst.exe` from directory to which you unpacked the archive on Microsoft Windows
- *Welcome* screen offers services for several product versions and database types
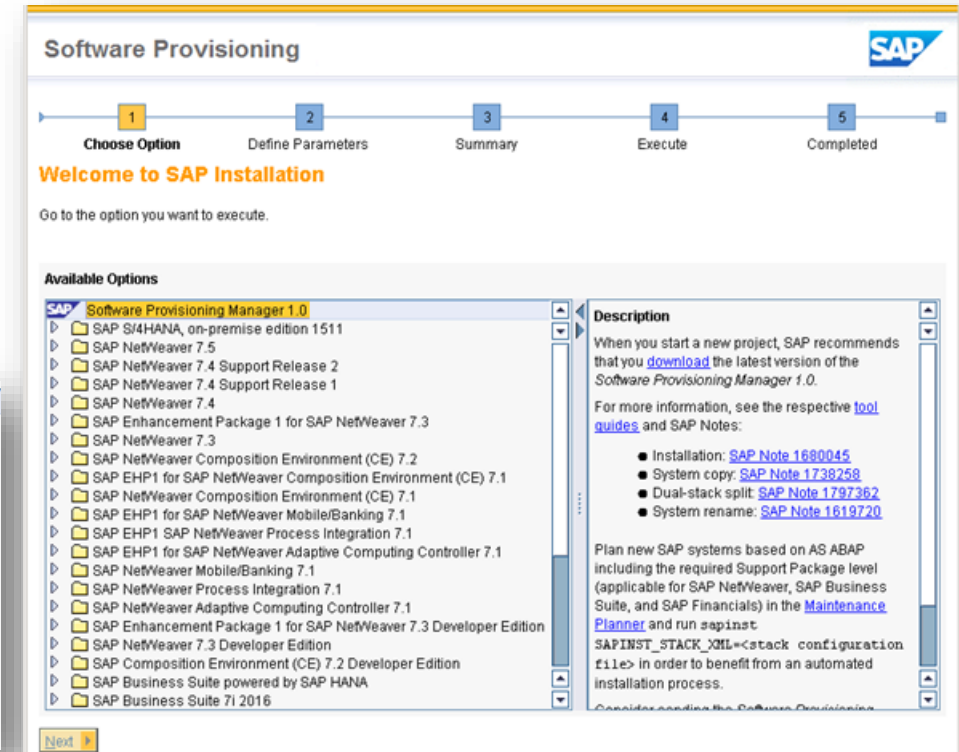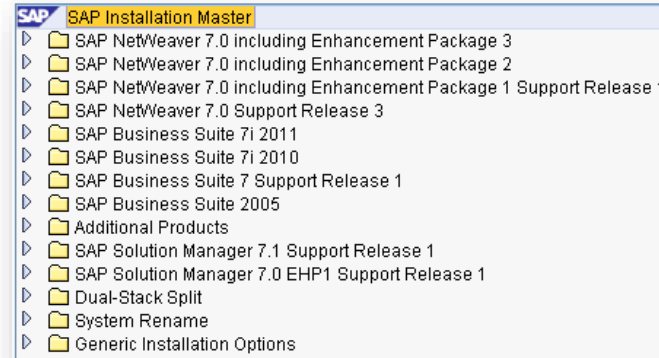
System copy and migration
4. Execution – export

On the source system, you choose the services you want to execute:

- On *Welcome* screen, choose *<Your SAP product version>*
  → *<Your database>*
  → *System Copy*
  → *Source System*
  → *<Your Application Server>*
  → *<Your Service>*

You follow the instructions on the screens

- Enter required parameters as described in the documentation
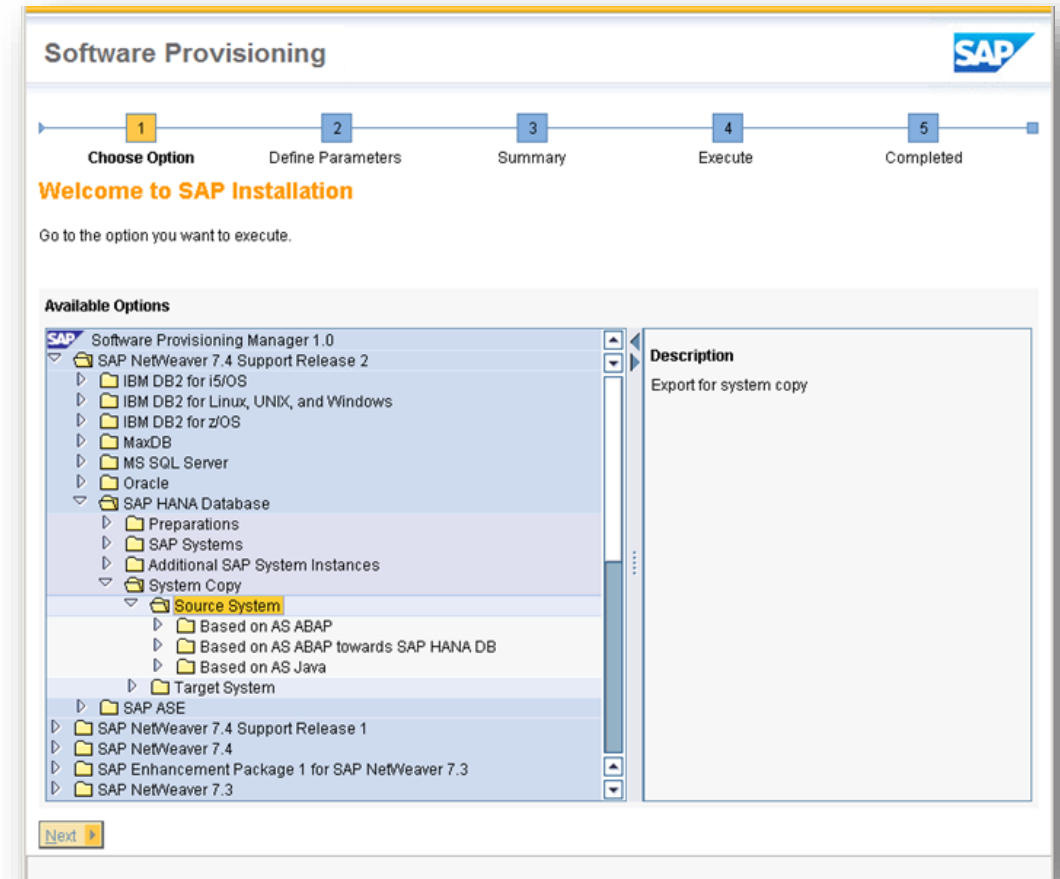
System copy and migration
4. Execution – import

🟡 **On the target system, you choose the services you want to execute:**

- On *Welcome* screen, choose *<Your SAP product version>*
  - → *<Your database>*
  - → *System Copy*
  - → *Target System*
  - → *<Distribution Option>*
  - → *<Your Application Server>*
  - → *<Your Service>*

🟡 **You follow the instructions on the screens**

- Enter required parameters as described in the documentation

Software Provisioning

1	2	3	4	5
Choose Option	Define Parameters	Summary	Execute	Completed

Welcome to SAP Installation

Go to the option you want to execute.

Available Options

- Software Provisioning Manager 1.0
  - ▽ SAP NetWeaver 7.4 Support Release 2
    - ▷ IBM DB2 for i5/OS
    - ▷ IBM DB2 for Linux, UNIX, and Windows
    - ▷ IBM DB2 for z/OS
    - ▷ MaxDB
    - ▷ MS SQL Server
    - ▷ Oracle
    - ▽ SAP HANA Database
      - ▷ Preparations
      - ▷ SAP Systems
      - ▷ Additional SAP System Instances
      - ▽ System Copy
        - ▷ Source System
        - ▽ Target System
          - ▷ Standard System
          - ▷ Distributed System
          - ▷ High-Availability System
    - ▷ SAP ASE
  - ▷ SAP NetWeaver 7.4 Support Release 1
  - ▷ SAP NetWeaver 7.4
  - ▷ SAP Enhancement Package 1 for SAP NetWeaver 7.3
  - ▷ SAP NetWeaver 7.3

Description

Here you can install the main building blocks of an SAP system landscape.

Next ▶

System copy and migration
4. Execution

After the procedure finished, the success dialog of *software provisioning manager* **offers a**
link to statistical runtime data + direct feedback to SAP

- By clicking, evaluation form is opened in your Web browser
  - *Send* button → anonymous statistical **runtime** data of executed service sent to SAP; optionally, you can provide additional feedback
  - Full transparency what information is sent (see *Process XML* field)
  - Data is sent via email

- This data is used by SAP to build anonymous **analytical database**
  - Concerning used processes and runtimes on different platforms
  - Will help SAP to prioritize and address the right topics
  - In the future, might enable us to make predictions concerning runtimes

- For more information, see this blog in SAP Community Network

Execution of

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has completed.

Consider sending the feedback form with statistics back to SAP SE. This helps SAP to continuously improve its tools.
Make sure that you load the feedback form before closing this tool.

If your proxy settings do not allow sending the feedback directly, you can use the following link on another computer that has access to the host where the tool is running.
http://\\⬛⬛⬛⬛⬛⬛⬛/docs/5fb4b70eafdddb8d/EvalForm.html

Choose OK to close the tool.

[Show details] [OK]

System copy and migration
5. Follow-up activities

- **You perform follow-up activities as described in the documentation**

- **After successful execution of your project, you remove tool from host**
  - For a new project, download latest version of *Software Provisioning Manager*

Summary

 Software Provisioning Manager 1.0 provides latest SAPinst tool version with software provisioning services (such as system copy) **for several products and releases for all platforms, including backward releases – available from one archive**

Always download latest version of *Software Provisioning Manager 1.0* – this way, you automatically get support of latest product versions and platform support, including latest corrections in the tool and supported processes

Further information

For more information on *Software Provisioning Manager 1.0*:

- *SAP Release Note:* SAP Note 1680045
- Software Provisioning Manager 1.0 in *SAP Community Network*

For more information on system copy and migration:

- System Copy and Migration in *SAP Community Network*
- SAP Note 1768158 (*SAP NetWeaver 7.0x)* or
- SAP Note 1738258 (*SAP NetWeaver 7.1x and higher)*

For more information on *Software Logistics Toolset*:

- Blog in *SAP Community Network*
- SAP Support Portal at: http://support.sap.com/sltoolset
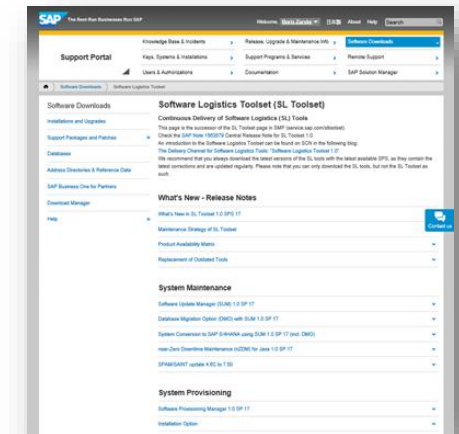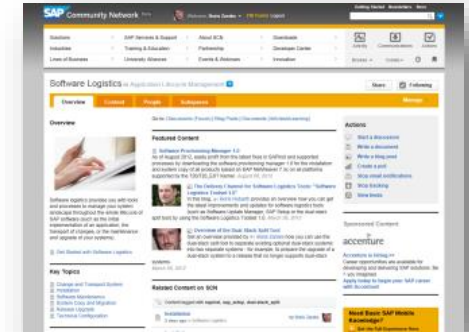
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- Complements traditional channels of interaction and feedback at SAP
- Contribute under https://ideas.sap.com/softwarelogistics
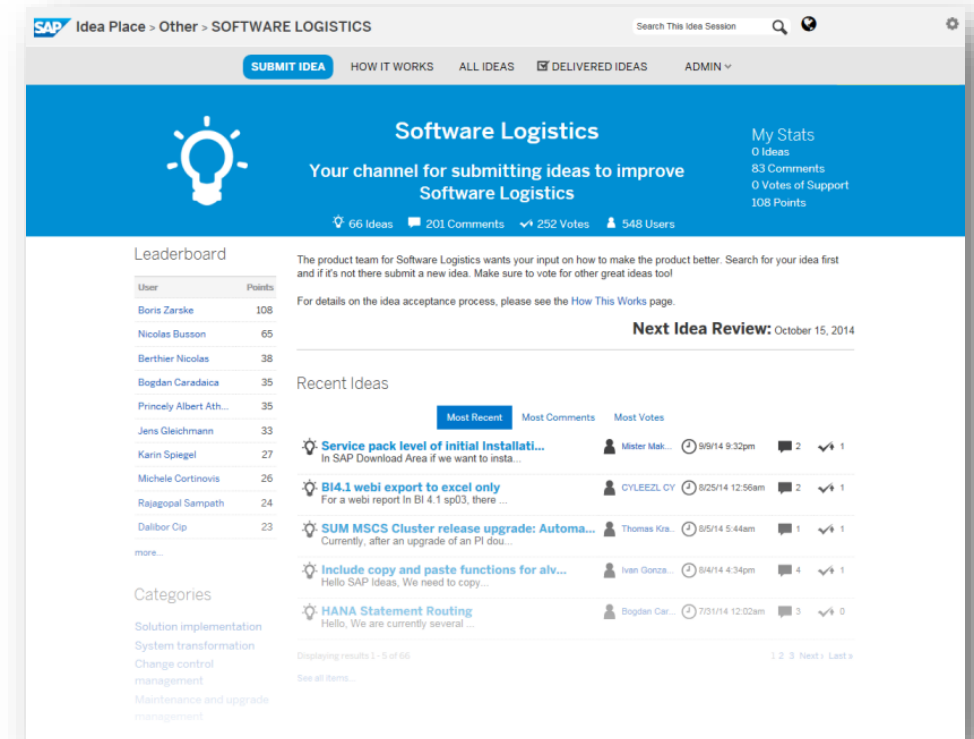
Thank you

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