Installation Guide | PUBLIC
Software Provisioning Manager 1.0 SP40
Document Version: 4.4 – 2024-02-12

Installation of a Standalone Gateway Instance for SAP Systems Based on SAP NetWeaver 7.3 EHP1 to 7.52 on Windows

THE BEST RUN SAP

Content

Document History

> **Note**
>
> Before you start reading, make sure you have the latest version of this installation guide, which is available at https://support.sap.com/sltoolset > *System Provisioning* > *Install a System using Software Provisioning Manager* > *Installation Option of Software Provisioning Manager 1.0* > .

The following table provides an overview on the most important document changes:

Version	Date	Description
4.4	2024-02-12	Updated version for software provisioning manager 1.0 SP40 (SL Toolset 1.0 SP40)
4.3	2023-10-09	Updated version for software provisioning manager 1.0 SP39 (SL Toolset 1.0 SP39) Windows operating systems no longer supported for software provisioning manager 1.0 SP39 and higher, according to SAP Note 2998013, have been removed.
4.2.1	2023-10-09	Updated version for software provisioning manager 1.0 SP38 (SL Toolset 1.0 SP38): Last version containing information about no longer supported Windows operating systems according to SAP Note 3346502.
4.2	2023-05-26	Updated version for software provisioning manager 1.0 SP38 (SL Toolset 1.0 SP38)
4.1	2023-02-13	Updated version for software provisioning manager 1.0 SP37 (SL Toolset 1.0 SP37)

Version	Date	Description
4.0	2022-10-10	Updated version for software provisioning manager 1.0 SP36 (SL Toolset 1.0 SP36) Operating systems and CPU architectures no longer supported according to SAP Note 2998013 have been removed.
3.9.1	2022-10-10	Updated version for software provisioning manager 1.0 SP35 (SL Toolset 1.0 SP35): Last version containing information about no longer supported operating systems and CPU architectures according to SAP Note 2998013.
3.9	2022-05-24	Updated version for software provisioning manager 1.0 SP35 (SL Toolset 1.0 SP35)
3.8	2022-02-14	Updated version for software provisioning manager 1.0 SP34 (SL Toolset 1.0 SP34)
3.7	2021-10-11	Updated version for software provisioning manager 1.0 SP33 (SL Toolset 1.0 SP33)
3.6	2021-06-21	Updated version for software provisioning manager 1.0 SP32 (SL Toolset 1.0 SP32)
3.5	2021-02-15	Updated version for software provisioning manager 1.0 SP31 (SL Toolset 1.0 SP31)
3.4	2020-10-05	Updated version for software provisioning manager 1.0 SP30 (SL Toolset 1.0 SP30)
3.3	2020-06-08	Updated version for software provisioning manager 1.0 SP29 (SL Toolset 1.0 SP29)
3.2	2020-01-20	Updated version for software provisioning manager 1.0 SP28 (SL Toolset 1.0 SP28)

Version	Date	Description
3.1	2019-09-16	Updated version for software provisioning manager 1.0 SP27 (SL Toolset 1.0 SP27)
3.0	2019-05-27	Updated version for software provisioning manager 1.0 SP26 (SL Toolset 1.0 SP26)
2.9	2019-01-21	Updated version for software provisioning manager 1.0 SP25 (SL Toolset 1.0 SP25)
2.8	2018-09-17	Updated version for software provisioning manager 1.0 SP24 (SL Toolset 1.0 SP24)
2.7	2018-05-07	Updated version for software provisioning manager 1.0 SP23 (SL Toolset 1.0 SP23)

Version	Date	Description

2.6	2018-01-15	Updated version for software provisioning manager 1.0 SP22 (SL Toolset 1.0 SP22)
		• New Features:
		  • Digital signature check for installation archives, documented in: *New Features*, *Downloading SAP Kernel Archives (Archive-Based Installation) Archive-Based Installation for Diagnostics Agent*, *Downloading the SAP Kernel Archives Required for the Dual-Stack Split (Without Operating System and Database Migration)*, *Downloading the SAP Kernel Archives Required for Operating System and Database Migration*
		  • Software provisioning manager Log Files Improvements, documented in: *New Features*, *Useful Information about the Software Provisioning Manager*, *Troubleshooting with the Software Provisioning Manager*
		  • Enabling IPv6, documented in: *New Features*, *Prerequisites for Running the Software Provisioning Manager*
		• *New Features* section restructured: As of SP22, a dedicated subsection for each new SP has been created. New features below SP22 remain in a common table.
		• The Java SDT GUI - which was in the SP21 version still available in parallel to the SL-UI - has been deprecated with SP22. As of SP22, SL-UI is the only available GUI of the software provisioning manager:
		  • The following sections which were explicitely related to Java SDT GUI were completely removed from this documenta-

Version	Date	Description
		tion: *Performing a Remote Installation Remote Processing of the Software Provisioning Manager (Java SDT GUI only)*, *Starting the Java SDT GUI Separately*, *Running the Software Provisioning Manager in Accessibility Mode* (general accessibility information was moved to *Useful Information About the Software Provisioning Manager*). • The Java SDT GUI-specific information was removed from the common software provisioning manager sections: *Running the Software Provisioning Manager*, *Useful Information About the Software Provisioning Manager*, *Interrupted Processing of the Software Provisioning Manager*, *Troubleshooting with the Software Provisioning Manager* • New section *Using the Step State Editor (SAP Support Experts Only)* was added to section *Additional Information About the Software Provisioning Manager*

Version	Date	Description

2.5	2017-09-11	Updated version for software provisioning manager 1.0 SP21 (SL Toolset 1.0 SP21)
		• New Features:
		  • Media Signature Check, documented in: *New Features*, *Running the Software Provisioning Manager*, *Preparing the Installation Media* .
		  This feature implies that section *Creating Kernel Archives from an Existing SAP System* has been deleted from this documentation because the related option in the software provisioning manager had to be removed.
		  • SAP Host Agent Upgrade , documented in: *New Features*, *SAP System Parameters*, *Downloading SAP Kernel Archives (Archive-Based Installation)*

2.4	2017-05-22	Updated version for software provisioning manager 1.0 SP20 (SL Toolset 1.0 SP20) • New Features: • New SAPUI5-based graphical user interface (GUI) "SL-UI", documented in: *Prerequisites for Running the Software Provisioning Manager*, *Running the Software Provisioning Manager*, *Useful Information About the Software Provisioning Manager*
2.3	2017-02-06	Updated version for software provisioning manager 1.0 SP19 (SL Toolset 1.0 SP19)
2.2	2016-10-07	Updated version for software provisioning manager 1.0 SP18 (SL Toolset 1.0 SP18)

Version	Date	Description
2.1	2016-06-06	Updated version for software provisioning manager 1.0 SP17 (SL Toolset 1.0 SP17)
2.0	2016-02-15	Updated version for software provisioning manager 1.0 SP10 (SL Toolset 1.0 SP16)
1.9	2015-10-12	Updated version for software provisioning manager 1.0 SP09 (SL Toolset 1.0 SP15)
1.8	2015-09-14	Updated version for software provisioning manager 1.0 SP09 (SL Toolset 1.0 SP14)
1.7	2015-04-27	Updated version for software provisioning manager 1.0 SP08 (SL Toolset 1.0 SP13)
1.6	2014-11-24	Updated version for software provisioning manager 1.0 SP07 (SL Toolset 1.0 SP12)
1.5	2014-07-07	Updated version for software provisioning manager 1.0 SP06 (SL Toolset 1.0 SP11)
1.4	2014-03-17	Updated version for software provisioning manager 1.0 SP09 (SL Toolset 1.0 SP10)
1.3	2013-10-28	Updated version
1.2	2013-07-15	Updated version
1.1	2013-04-12	Updated version
1.0	2012-12-17	Initial version

1 About this Document

This documentation describes how to install or rename a **standalone** Gateway instance on Windows, for SAP system products based on SAP NetWeaver 7.3 EHP1 to 7.52, using the software provisioning manager 1.0 SP40 [page 11], which is part of SL Toolset 1.0 SP40.

You can find a complete list of the SAP system products that are supported by software provisioning manager 1.0 attached to SAP Note 1680045.

Each instance of an SAP system with an ABAP application server has a Gateway. The Gateway enables communication between work processes and external programs, as well as communication between work processes from different instances of SAP systems.

You can also install a **standalone** Gateway. With the standalone Gateway, you can install the Gateway service separately from the SAP system. In this case, the SAP system can access each external Gateway under a different RFC connection.

> ⓘ Note
>
> There is no difference between a standalone Gateway instance for a Unicode system and a standalone Gateway for a non-Unicode system.

1.1 About Software Provisioning Manager 1.0

The software provisioning manager 1.0 is the successor of the product- and release-specific delivery of provisioning tools, such as “SAPinst”. We strongly recommend that you always download the latest version of the software provisioning manager 1.0. The software provisioning manager 1.0 is part of the Software Logistics Toolset 1.0 (“SL Toolset” for short). This way, you automatically get the latest fixes and supported processes. For more information about the software provisioning manager as well as products and releases supported by it, see SAP Note 1680045 and http://scn.sap.com/docs/DOC-30236.

“SAPinst” has been renamed to “software provisioning manager” in this documentation, but the terms “SAPinst” and “sapinst” are still used in:

- The name of the technical framework of the software provisioning manager. For more information about the SAPinst Framework, see SAP Note 2393060.
- Texts and screen elements in the the software provisioning manager GUI (SL Common GUI)
- Names of executables, for example `sapinst.exe`
- Names of command line parameters, for example **`SAPINST_HTTPS_PORT`**

In the following, we generally refer to the software provisioning manager 1.0 as the “software provisioning manager”. We only use the term “software provisioning manager 1.0” if this is required for technical reasons.

Related Information

Preparing the Installation Media [page 28]

1.2 New Features

This section provides an overview of the new features in software provisioning manager 1.0.

Make sure that you also read the *Release Notes* for your SAP product at https://help.sap.com > `<Search your SAP Product>` > `<Select your SAP Product Version>` > *What's New* .

Feature	Description	Availability
New SAPinst Framework Version 753	The SAPinst framework patch level has been upgraded from version 749 (SAP Note 2393060 *SAPinst Framework 749 Central Note*) to 753. For more information, see SAP Note 3207613 *SAPinst Framework 753 Central Note*.	software provisioning manager 1.0 SP36 (SL Toolset 1.0 SP36)
New Look and Feel of SL-UI	As of version 1.0 SP24 Patch Level (PL) 5, the software provisioning manager comes with a new look and feel of the SL-UI. For more information, see https://blogs.sap.com/2018/11/10/new-look-for-software-provisioning-manager/.	software provisioning manager 1.0 SP24, PL05 (SL Toolset 1.0 SP24)
software provisioning manager Log Files Improvements	software provisioning manager log files are now available immediately after software provisioning manager has been started, that is **before** a product has been selected on the *Welcome* screen. For more information, see Useful Information about Software Provisioning Manager [page 39] and Troubleshooting with Software Provisioning Manager [page 45].	software provisioning manager 1.0 SP22 (SL Toolset 1.0 SP22)
Digital Signature Check of Installation Archives	The digital signature of installation archives is checked **automatically** by software provisioning manager during the *Define Parameters* phase while processing the *Software Package Browser* screens. As of now software provisioning manager only accepts archives whose digital signature has been checked. For more information, see Downloading Installation Archives (Archive-Based Installation) [page 30] .	software provisioning manager 1.0 SP22 (SL Toolset 1.0 SP22)
Enabling IPv6	You can now set up a new SAP system or SAP system instance using Internet Protocol Version 6 (IPv6). For more information, see Prerequisites for Running Software Provisioning Manager [page 34].	software provisioning manager 1.0 SP22 (SL Toolset 1.0 SP22)

Feature	Description	Availability
Media Signature Check	The digital signature of media is checked **automatically** by the software provisioning manager during the *Define Parameters* phase while processing the *Media Browser* screens. The software provisioning manager only accepts media whose digital signature has been checked. For more information, see Preparing the Installation Media [page 28] and Running the software provisioning manager [page 35].	software provisioning manager 1.0 SP21 (SL Toolset 1.0 SP21)
SAP Host Agent Upgrade During the Installation (Optional)	During the *Define Parameters* phase of the installation, software provisioning manager prompts you whether you want to upgrade an existing version of the SAP Host Agent on the installation host. If there is no SAP Host Agent on the installation host, it is installed automatically without prompt. For more information, see Basic Installation Parameters [page 19].	software provisioning manager 1.0 SP21 (SL Toolset 1.0 SP21)
SL-UI with SAPINST 7.49	With the new software provisioning manager framework version SAPINST 7.49, you can now use the new SAPUI5-based graphical user interface (GUI) "SL-UI". For more information, see Useful Information about Software Provisioning Manager [page 39], Running Software Provisioning Manager [page 35] .	software provisioning manager 1.0 SP20 (SL Toolset 1.0 SP20)
Verification of Integrity of Data Units in software provisioning manager	The integrity of data units extracted from the software provisioning manager archive is verified. For more information, see Downloading and Extracting the Software Provisioning Manager 1.0 Archive [page 29] . In addition, check SAP Note 1680045 whether additional information is available.	software provisioning manager 1.0 SP19 (SL Toolset 1.0 SP19)
Archive-Based Installation	You can now download the required **installation archives** for the SAP Gateway installation, instead of using the complete SAP kernel installation media. For more information, see Downloading Installation Archives (Archive-Based Installation) [page 30].	software provisioning manager 1.0 SP18 (SL Toolset 1.0 SP18)
System Provisioning for SAP NetWeaver 7.5 and SAP NetWeaver 7.5-based Products	All system provisioning tasks (installation, system copy, system rename) are available for the new SAP NetWeaver 7.5 release. The Dual Stack option, which integrates an AS ABAP and AS Java in a single system (common System ID `<SAPSID>`, common startup framework, common database), is no longer supported in SAP systems based on SAP NetWeaver 7.5.	software provisioning manager 1.0 SP09 (SL Toolset 1.0 SP15)
Feedback Evaluation Form	SAP SE's aim is to provide fast and efficient procedures. To evaluate the procedure you just carried out, we need information generated by the tool during process execution and your experience with the tool itself. A new evaluation form contains a simple questionnaire and XML data generated during the procedure. Port 4239 is used for displaying the feedback evaluation form.	software provisioning manager 1.0 SP07 (SL Toolset 1.0 SP12)

Feature	Description	Availability
Option *Verify Signed Media*	The digital signature ensures that the signatory of a digital document can be identified unambiguously and signatory's name is documented together with the signed document, the date, and the time. For more information, see SAP Note 1979965.	software provisioning manager 1.0 SP06 (SL Toolset 1.0 SP11)

1.3 SAP Notes for the Installation

You **must** read the following SAP Notes **before** you start the installation. These SAP Notes contain the most recent information on the installation, as well as corrections to the installation documentation.

Make sure that you have the up-to-date version of each SAP Note which you can find at https://support.sap.com/notes.

SAP Notes for the Installation

SAP Note Number	Title	Description
1680045	Release Note for Software Provisioning Manager 1.0	Remarks, annotations, and corrections discovered after publication of the documentation Software Provisioning Manager

1.4 Accessing the SAP Library

The references to **SAP NetWeaver Library** documentation in this installation guide always refer to the following on SAP Help Portal:

Product and Release	SAP Library Path
SAP systems based on SAP NetWeaver 7.3 EHP1	SAP NetWeaver 7.3 EHP1: http://help.sap.com/nw731 ▶ *Application Help* ▶ *SAP NetWeaver Library: Function-Oriented View*
SAP systems based on SAP NetWeaver 7.4	http://help.sap.com/nw74 ▶ *Application Help* ▶ *SAP NetWeaver Library: Function-Oriented View*

Product and Release	SAP Library Path
SAP systems based on SAP NetWeaver 7.5x	• SAP NetWeaver 7.5: http://help.sap.com/nw75 *Application Help* *SAP NetWeaver Library: Function-Oriented View* • SAP NetWeaver Application Server for ABAP 7.51 innovation package: https://help.sap.com/nw751abap *Application Help* *SAP NetWeaver Library: Function-Oriented View* • SAP NetWeaver AS for ABAP 7.52: https://help.sap.com/nw752abap *Application Help* *SAP NetWeaver Library: Function-Oriented View*

1.5 Naming Conventions

In this documentation, the following naming conventions apply:

> **Note**
>
> From a technical point of view, the standalone Gateway is set up like an SAP system with its own SAP system ID (SAPSID), its own operating system users, and its own directory structure.

- “SAP system” refers to the “standalone Gateway” as such.
- “instance” refers to the “standalone Gateway instance”.

2 Planning

2.1 Hardware and Software Requirements

You check that your hosts meet the hardware and software requirements for your operating system and the Gateway.

> ⚠ Caution
>
> If your hosts do not fully meet the requirements, you might experience problems when working with the SAP system.

Procedure

1. Check the *Product Availability Matrix* at https://apps.support.sap.com/sap/support/pam for supported operating system releases.
2. If you want to use the standalone Gateway for a **production** system, the values provided by the Prerequisite Checker and the hardware and software requirements checklists are not sufficient. In addition, do the following:
   - You use the hardware sizing information available at https://sap.com/sizing.
   - You contact your hardware vendor, who can analyze the load and calculate suitable hardware sizing depending on:
     - The set of applications to be deployed
     - How intensively the applications are to be used
     - The number of users

2.1.1 Hardware and Software Requirements Tables

The standalone Gateway host must meet the following requirements:

Hardware Requirements

Hardware Requirement	Requirement	How to Check
Minimum disk space	• 1 GB of hard disk space minimum for the installation as such. • Temporary disk space for every required installation medium that you have to copy to a local hard disk: 4.3 GB	To check disk space: 1. Open PowerShell in elevated mode, and enter the following command: `get-volume` 2. Check the value *SizeRemaining* of the disk you want to install on.
Minimum RAM	The standalone gateway instance requires 1 GB RAM minimum.	To check RAM: Open PowerShell in elevated mode, and enter the following command: `Get-WmiObject Win32_ComputerSystem`
Paging file size	For more information, see SAP Note 1518419.	To check paging file size: For more information, see Checking and Changing the Paging File Settings on Windows Server [page 50]
Processing units	The number of physical or virtual processing units usable by the operating system image must be equal to or greater than 2. Examples of processing units are processor cores or hardware threads (multithreading). In a virtualized environment, ensure that adequate processor resources are available to support the workloads of the running SAP systems.	
Suitable backup system		

Software Requirements

Software Requirement	Requirement	How to Check

Windows operating system	• **64-bit version** of one of the following Windows Server Editions:
	  • Windows Server Standard Edition
	  • Windows Server Datacenter Edition
	
	⚠ Caution
	For up-to-date information on the released and supported operating system versions for your SAP product and database, see the Product Availability Matrix (PAM) at http://support.sap.com/pam.
	
	⚠ Caution
	Make sure that you install the **English** language pack so that your support requests can be handled quickly.
	
	• For any version of Windows Server, you need the latest supported service pack
		To check your Windows version:
		
		Open PowerShell in elevated mode, and enter the following command:
		
		`Get-WmiObject Win32_OperatingSystem | select caption`

Important information about the delivery of Microsoft Visual C++ redistributables (VCredist) versions with software provisioning manager 1.0	The software provisioning manager 1.0 no longer delivers any VCredist versions that are no longer in maintenance by the manufacturer Microsoft. SAP cannot therefore assume maintenance responsibility for these 3rd party components At the time of delivery, this affects VCredist 2005 and 2010. As a result, a manual subsequent installation of the VCredist files by the customer may be required during the installation of SAP kernels that are based on these specified versions. For more information, see SAP Note 1553465 - *Installation requirements for SAP kernels on Windows (C++ runtime environment, VCredist versions)*	–
Windows regional settings	*English (United States)* must be set by default. For more information about localized Windows versions, see SAP Note 362379. You can install additional languages but the default setting for new users must always be *English (United States)*.	Choose *Start* > *Control Panel* > *Clock, Language, and Region* > *Language*.

Software Requirement	Requirement	How to Check
Minimum Web Browser	Make sure that you have at least one of the following web browsers installed on the host where you run the software provisioning manager GUI: • Microsoft Internet Explorer 11 or higher • Microsoft Edge • Mozilla Firefox • Google Chrome Always use the latest version of these web browsers. You need a web browser to be able to run the SL-UI, and to display the Evaluation Form and send it to SAP.	Choose *Start* > *Control Panel* > *Programs and Features*.

2.2 Basic Installation Parameters

The table below lists the basic input parameters that are prompted by the software provisioning manager. For all remaining input parameters, use the tool help or the descriptions on the software provisioning manager screens.

Parameters	Description
SAP System ID `<SAPSID>`	The SAP System ID `<SAPSID>` identifies the standalone Gateway system. **⚠ Caution** Choose your SAP system ID carefully. You **cannot** change the SAP system ID after the installation. Make sure that your SAP system ID: • Is unique throughout your organization • Consists of exactly three alphanumeric characters • Contains only uppercase letters • Has a letter for the first character • Does not include any of the reserved IDs listed in SAP Note 1979280. **⚠ Caution** You must choose an SAP system ID that is different from the SAP system ID of the central instance of the SAP system the Gateway belongs to.

Parameters	Description
Instance Number for the stand-alone Gateway	**Instance Number:** Technical identifier for internal processes. Consists of a two-digit number from 00 to 97. The instance number must be unique on a host. That is, if more than one SAP instance is running on the same host, these instances must be assigned different numbers. **⚠ Caution** Do not use 43, 60, 89 for the instance number of the standalone Gateway.
Virtual Host Name	Virtual host name (network name) of the SAP<SAPSID> cluster group You can assign a virtual host name for the instance to be installed, by specifying it in the *Host Name* field of the *Gateway Instance* screen. Then this instance is installed with this virtual host name. After the installation has completed, all application servers can use this virtual host name to connect to the instance. The virtual host name is also a global host name. If you do not provide the virtual host name, the instance is installed automatically using its physical host name. You must have already reserved the virtual host name (network name) and its IP address on a DNS server before you run the software provisioning manager. For more information, see Using Virtual Host Names [page 27]. **ⓘ Note** Fully qualified host names, IPv4, IPv6 are not accepted as virtual host names. Alternatively you can assign virtual host names also by starting the software provisioning manager with the SAPINST_USE_HOSTNAME command line parameter. For more information, see Running Software Provisioning Manager [page 35].

Parameters	Description
Master Password	Common password for all users that are created during the installation: • Operating system users (for example `<sapsid>adm`, `SAPService<sapsid>`) **⚠ Caution** If you did not create the operating system users manually before the installation, the software provisioning manager creates them with the common master password (see *Operating System Users*). In this case, make sure that the master password meets the requirements of your operating system. • Secure Store key phrase **ⓘ Note** If a user already exists, you are prompted to confirm the password for this user. **Basic Password policy** The master password must meet the following requirements: • It can be 8 to 30 characters long • It must contain at least one letter (a-z, A-Z) • It must contain at least one digit (0-9) • It must not contain `\` (backslash) or `"` (double quote). **Additional restrictions depending on Windows:** • If a user already exists, you are prompted to confirm the password for this user. • Depending on the configuration of the password policy, additional restrictions might apply. **→ Recommendation** The Master Password feature can be used as a simple method to obtain customer-specific passwords for all newly created users. A basic security rule is not to have identical passwords for different users. Following this rule, we strongly recommend individualizing the values of these passwords after the installation is complete. For more information, see Ensuring User Security [page 48].

Parameters	Description

Operating System Users	The passwords of the operating system users **must** comply with the Windows password policy. The software provisioning manager processes the passwords of operating system users as follows:
	• If the operating system users do **not** exist, SAP creates the following users:
	  • `<sapsid>adm`
	  This user is the SAP system administrator user. It is a member of the local `Administrators` group.
	  • `SAPService<SAPSID>`
	  This user is the Windows account to run the SAP system. It is not a member of the local `Administrators` group.
	  • `sapadm`
	  The host agent user `sapadm` is used for central monitoring services. The software provisioning manager creates this user by default as a local user although it is not a member of the local `Administrators` group.
	  If required, you can change this user to become a domain user on the parameter summary screen. For more information, see Performing a Domain Installation Without Being a Domain Administrator [page 25]. For security reasons, however, SAP strongly recommends you to create this user as a local user.
	The software provisioning manager sets the master password for these users by default. You can overwrite and change the passwords either by using the parameter mode *Custom* or by changing them on the parameter summary screen.
	• If the operating system users already exist, the software provisioning manager prompts you for the existing password, except the password of these users is the same as the master password.
	⚠ Caution
	Make sure that you have the required user authorization [page 23] for these accounts before you start the installation.

SAP Host Agent Upgrade (Optional)	If there already exists an SAP Host Agent on the installation host, the software provisioning manager asks you if you want to upgrade it to a newer patch level version. If you want the existing version to be upgraded, you must provide the new target version of the `SAPHOSTAGENT<Version>.SAR` archive. For more information, see Downloading Installation Archives (Archive-Based Installation) [page 30]

3 Preparation

This section describes in detail the steps you need to take before installing your .

3.1 Checking the Windows File System

Use

You need to check that you are using the Windows file system NTFS on hosts where you want to install the SAP system and database. NTFS supports full Windows security and long file names.

> ⓘ Note
>
> You must use NTFS for an SAP system installation. Do **not** install the SAP directories on a FAT partition.

Procedure

1. Open the Windows Explorer.
2. Select the relevant disk.
3. Choose *Properties* > *General*.
   The system displays the type of file system in use.
4. Check that the file system is NTFS.

3.2 Required User Authorization for Running Software Provisioning Manager

Although the software provisioning manager automatically grants the rights required for the installation to the user account used for the installation, you have to check whether this account has the required authorization to perform the installation. The authorization required depends on whether you intend to perform a **domain** or **local** installation. If necessary, you have to ask the system administrator to grant the account the necessary authorization **before** you start the installation. If you attempt the installation with an account that does not have the required authorization, the installation aborts.

This section informs you about the authorization required for a domain and a local installation.

Procedure

> ⚠ Caution
>
> Do **not** use the user `<sapsid>adm` or the built-in administrator account for the installation of the SAP system.

Domain Installation

For a domain installation the account used for the installation needs to be a member of the local `Administrators` group. In many old installation guides, you find the information that the account must be a member of the `Domain Admins` group. The account can be either a member of the `Domain Admins` group or belong to the `Domain Users` group and have the necessary rights to create/modify objects in the domain.

All machines in the system must belong to the same domain. In a domain installation, the user information is stored centrally on the domain controller and is accessible to all hosts in the system.

If the SAP system is to be distributed across **more than one** machine, SAP strongly recommends that you perform a domain installation to avoid authorization problems.

For a domain installation, you need to:

1. Check that the account used for the installation is a member of the domain `Admins` group.
2. If required, obtain these rights by asking the system administrator to enter the account as a member of the domain `Admins` group.

Local Installation

For a local installation the account used for the installation needs to be a member of the local `Administrators` group of the machine involved. In a local installation, all Windows account information is stored locally on one host and is not visible to any other hosts in the system.

If the SAP system is to run on a **single** machine, you can perform a local installation.

> ⚠ Caution
>
> Do not use the Windows built-in account `Administrator` or the renamed built-in account to install your SAP system. The built-in account only has restricted network access rights that are required by the software provisioning manager. If you renamed the built-in account `Administrator`, do not create a new account named `Administrator`.

For a local installation, you need to:

1. Check that the account used for the installation is a member of the local `Administrators` group.
2. If required, obtain these rights by asking the system administrator to enter the account as a member of the local `Administrators` group.

Related Information

Performing a Domain Installation Without Being a Domain Administrator [page 25]

3.3 Performing a Domain Installation Without Being a Domain Administrator

An alternative is to ask the domain administrator to grant the required permissions to the user which installs SAP or the database. This domain user must be a member of the local Administrators group. In most cases the domain administrator will define an OU (Organizational Unit) structure, where all SAP systems and their related domain objects belong to.

To perform the installation with a domain user, the user account must meet the following requirements:

1. Create/Delete/Modify Users and Groups within OUs only. Ask the AD administrator about the company's OU concept.
2. Create/Delete/Modify Computer Objects within this OU. This is required for users which install SAP or database applications in Failover Clusters, SAP Landscape Management environments or other high-availability (HA) environments.
   Optional rights might be necessary related to your company's security policy, for example:
3. Create/Delete/Modify DNS server records within a specific DNS zone, where the Windows hosts with SAP software belong to.
4. Create/Delete/Modify Organizational Unit objects within a specific OUs only.

The required objects in the domain are:

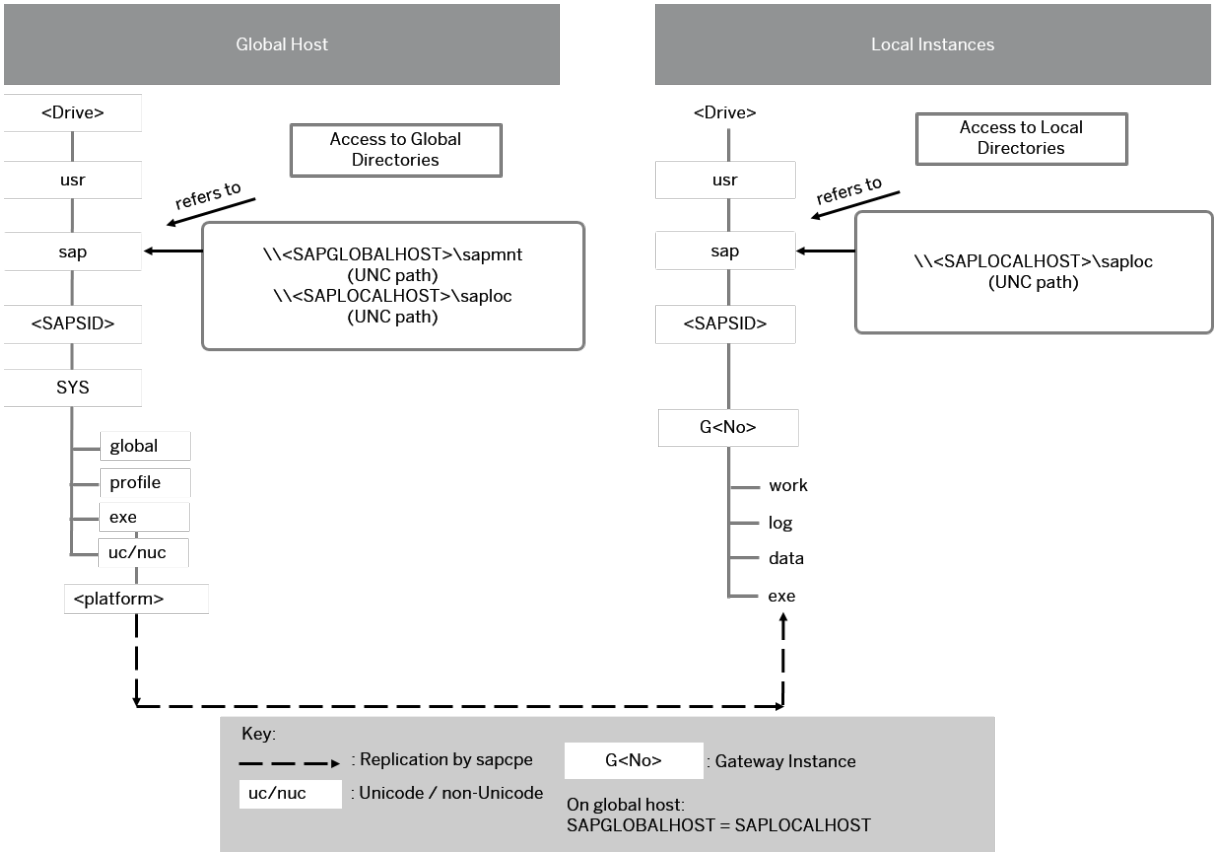
1. Domain group `SAP_<SAPSID>_GlobalAdmin`
   The group scope should be `GLOBAL`, the group type should be `SECURITY`.
2. Two new SAP system users `<sapsid>adm` and `SAPService<SAPSID>`.
3. The users `<sapsid>adm` and `SAPServiceSAPSID` must be members of the domain group `SAP_<SAPSID>_GlobalAdmin`.

> **Note**
>
> The software provisioning manager creates the operating system user for the SAP Host Agent by default as a local user that is not
>
> a member of the local Administrators group. If you want to create this user manually as a domain user,
>
> you must perform the following steps:
>
> Creating the SAP Host Agent User and Group Manually
>
> 1. Create the new global group `SAP_GlobalAdmin`
> 2. Create the SAP system user `sapadm`.
> 3. Add the user sapadm to the newly created group `SAP_GlobalAdmin`.
>
> However, for security reasons we strongly recommend that you create this user as a local user.

3.4 SAP Directories

The software provisioning manager automatically creates the directories listed in the following figures and tables. Before running the installation, you have to set up the required file systems manually. In addition, you

have to make sure that the required disk space for the directories to be installed is available on the relevant hard disks. The figure below assumes that you have set up one file system for the SAP system mount directory `<sapmnt>` and one file system for the `/usr/sap` directory. However, you have to decide for which directories you want to set up separate file systems. If you do not set up any file system on your installation host, the software provisioning manager creates all directories in the `root` directory `/`. The software provisioning manager prompts you only for the `<sapmnt>` directory during the installation.



The directory of the Gateway instance is `G<Instance_Number>`, for example `G00`.

SAP File Directories in Detail

> **Note**
>
> The listed file system sizes are initial SAP requirements.
>
> Depending on your operating system, you might also have to add space for administrative purposes.

Directory Name	Description	Space Required
<Drive>:\usr\sap\<SAPSID>	\usr\sap is created and **shared** with the network share sapmnt. The \usr\sap directory contains general SAP software, global and local (instance-specific) data. For this, the following directories are created in usr\sap\<SAPSID>\SYS: • global (contains globally shared data) • profile (contains the profiles of the instance) • exe (contains executable kernel programs) The directory usr\sap\<SAPSID>\<INSTANCE> is the directory of the instance: The instance name (instance ID) of the Gateway instance is G<Instance_Number>, for example G00.	500 MB
<Drive>:\usr\sap\trans	\usr\sap\trans This directory contains SAP software for the transport of objects between SAP systems .	This value heavily depends on the use of your SAP system. For the installation, it is sufficient to use 200 MB for each SAP system instance. You can enlarge the file system afterwards.

3.5 Using Virtual Host Names

You can use one or more virtual TCP/IP host names for SAP servers within an SAP server landscape to hide their physical network identities from each other. This can be useful when quickly moving SAP servers or complete server landscapes to alternative hardware since you do not need to reinstall or reconfigure.

Prerequisites

- Make sure that the virtual host name can be correctly resolved in your Domain Name System (DNS) setup.
- Make sure that you configured the Windows operating system properly to use virtual host names. For more information, see SAP Note 1564275.

Context

Procedure

To install a **non-high-availability** system, proceed as described in SAP Note 1564275.

3.6 Preparing the Installation Media

This section describes how to prepare the installation media.

Installation media are available as follows:

- The software provisioning manager 1.0 archive containing the software provisioning manager software
  You always have to download the latest version of the software provisioning manager 1.0 archive.
  For more information, see Downloading and Extracting the Software Provisioning Manager 1.0 Archive [page 29].
- Kernel Media.

Installation Media	Description
SAP Kernel	Non-Unicode (NUC) Kernel (folder `K_<Version>_N_<OS>`) where `N` means non-Unicode.

You can provide them in one of the following ways:

- Download the **SAP Kernel Archives** (SAR files) from the SAP Software Download Center - this is the recommended way.
  For more information, see Downloading Installation Archives (Archive-Based Installation) [page 30].
- Use the physical installation media as part of the installation package:
- Download the complete kernel media from the SAP Software Download Center.
  For more information, see Downloading Complete Installation Media [page 32].

> **Note**
>
> The digital signature of **installation media** is checked **automatically** by the software provisioning manager during the *Define Parameters* phase while the *Media Browser* screens are processed (see also Running Software Provisioning Manager [page 35]). The software provisioning manager only accepts media whose digital signature has been checked.

3.6.1 Downloading and Extracting the Software Provisioning Manager 1.0 Archive

You must always download and extract the software provisioning manager 1.0 archive from the SAP Software Download Center because you must use the latest version.

Prerequisites

- Make sure that you use the **latest** version of the SAPCAR tool when manually extracting the software provisioning manager archive. You need the SAPCAR tool to be able to unpack and verify software component archives (*.SAR files). *.SAR is the format of software lifecycle media and tools that you can download from the SAP Software Download Center.

  > **Note**
  >
  > An older SAPCAR version might extract archive files in a wrong way and this could prevent the software provisioning manager from working consistently.

  Proceed as follows to get the latest version of the SAPCAR tool:

  1. Go to https://me.sap.com/softwarecenter > *SUPPORT PACKAGES & PATCHES* > *By Category* > *SAP TECHNOLOGY COMPONENTS* > *SAPCAR* >.
  2. Select the SAPCAR for your operating system and download it to an empty directory.
  3. Even if you have the latest SAPCAR already available, we strongly recommend that you verify its digital signature anyway, unless you downloaded it directly from https://me.sap.com/softwarecenter/ yourself. You can do this by verifying the checksum of the downloaded SAPCAR tool:
     1. Depending on what operating system you are using, compute a hash of the downloaded SAPCAR tool, using the SHA-256 algorithm used by SAP .
     2. Now verify the digital signature of the downloaded SAPCAR tool by comparing the hash with the checksum (generated by SAP using the SHA-256 algorithm) from the *Content Info* button in the *Related Info* column on the right-hand side of the place where you downloaded the SAPCAR tool.
  4. To improve usability, we recommend that you rename the executable to **`sapcar`**.

  For more information about SAPCAR, see SAP Note 212876.

Procedure

1. Download the latest version of the Software Provisioning Manager 1.0 archive `[70]SWPM10SP<Support_Package_Number>_<Version_Number>.SAR` :

   https://support.sap.com/sltoolset > *System Provisioning* > *Download Software Provisioning Manager* >
2. Using the latest version of SAPCAR, you can verify the digital signature of the downloaded `[70]SWPM10SP<Support_Package_Number>_<Version_Number>.SAR` archive as follows:
   a. Get the latest version of the `SAPCRYPTOLIB` archive to your installation host as follows:

1. Go to https://me.sap.com/softwarecenter *SUPPORT PACKAGES & PATCHES* and search for "**sapcryptolib**".
2. Select the archive file for your operating system and download it to the same directory where you have put the SAPCAR executable.
3. Use the following command to extract the SAPCRYPTOLIB archive to the same directory where you have put the SAPCAR executable:
   SAPCAR –xvf sapcryptolibp_84…sar –R <target directory>
4. Download the Certificate Revocation List from https://tcs.mysap.com/crl/crlbag.p7s and move it to the same directory.

b. Verify the digital signature of the downloaded [70]SWPM10SP<Support_Package_Number>_<Version_Number>.SAR archive by executing the following command:

> **Note**
>
> Check SAP Notes 2178665 and 1680045 whether additional information is available.

```
<Path to SAPCAR>\sapcar.exe -tvVf<Path to Download
Directory>\SWPM10SP<Support_Package_Number>_<Version_Number>.SAR -crl <file
name of revocation list>
```

3. Unpack the Software Provisioning Manager archive to a local directory using the following command:

```
<Path to SAPCAR>\sapcar.exe -xvf <Path to Download
Directory>\[70]SWPM10SP<Support_Package_Number>_<Version_Number>.SAR -R <Path to
Unpack Directory>
```

> **Note**
>
> Make sure that all users have at least read permissions for the directory to which you unpack the Software Provisioning Manager archive.

> **Caution**
>
> Make sure that you unpack the Software Provisioning Manager archive to a dedicated folder. Do not unpack it to the same folder as other installation media.

3.6.2 Downloading Installation Archives (Archive-Based Installation)

As an alternative to downloading the complete installation media, you can also download exactly the archives that are required for your installation.

Context

You must download - apart from the Software Provisioning Manager 1.0 archive which is always required for an installation - the SAPEXE <Version>.SAR and SAPHOSTAGENT<Version>.SAR archive files.

> **Note**
>
> The SAPHOSTAGENT<Version>.SAR archive is only prompted if there is either no SAP Host Agent available on the installation host or you specified during the Define Parameters phase that you want to upgrade an existing version of the SAP Host Agent already available on the installation host. In the latter case, you must specify a higher version of the SAPHOSTAGENT<Version>.SAR .Otherwise, the existing SAP Host Agent is not upgraded.

During the installation, you can either specify the path to each archive separately, or provide the path to a download basket with all downloaded archives.

> **Note**
>
> The digital signature of **installation archives** is checked **automatically** by the software provisioning manager [page 35] during the *Define Parameters* phase while processing the *Software Package Browser* screens. The software provisioning manager only accepts archives whose digital signature has been checked. After scanning the archives and verifying the digital signature, an info file is written where you can find detailed information about matching and non-matching archive files. You can access this info file by choosing the *info file* link in the Archive Scanning Result section of the *Software Package Browser* screen. The info file contains only the results of the latest archive scan.

Procedure

1. Go to https://me.sap.com/softwarecenter *SUPPORT PACKAGES & PATCHES* *By Category*
2. Download the latest patch level of the following software component archives (*.SAR files) from the following paths:
   - SAPEXE <Version>.SAR: from the following path:
     Additional Components *SAP Kernel* *SAP KERNEL 64-BIT* <SAP KERNEL <7.21 or Higher> 64-BIT> <Operating System> *#DATABASE INDEPENDENT*
   - SAPHOSTAGENT <Version>.SAR:
     SAP Technology Components *SAP HOST AGENT* *SAP HOST AGENT 7.21* <Operating System>

     > **Note**
     >
     > The SAPHOSTAGENT<Version>.SAR archive is only prompted if there is either no SAP Host Agent available on the installation host or you specified during the Define Parameters phase that you want to upgrade an existing version of the SAP Host Agent already available on the installation host. In the latter case, you must specify a higher version of the SAPHOSTAGENT<Version>.SAR .Otherwise, the existing SAP Host Agent is not upgraded.

3.6.3 Downloading Complete Installation Media

This section describes how you can download media from the SAP Software Download Center.

Procedure

1. Download and unpack the latest version of Software Provisioning Manager as described in Downloading and Extracting the Software Provisioning Manager 1.0 Archive [page 29].
2. You identify the required media as listed in Preparing the Installation Media [page 28] .
3. Identify **all** download objects that belong to one medium according to one of the following:

   > ⓘ Note
   >
   > Installation media might be split into several files. In this case, you have to reassemble the required files after the download.

   - Download path or location:
     - To download the complete kernel media, go to https://me.sap.com/softwarecenter/ ▶ *SUPPORT PACKAGES & PATCHES* ▶ *By Category* ▶ *ADDITIONAL COMPONENTS* ▶ *SAP KERNEL* ▶ *SAP KERNEL 64-BIT UNICODE* ▶ *SAP KERNEL* `<Version>` *64-BIT UNICODE* ▶ `<Select your OS>` ▶.
       - Select ▶ *#DATABASE INDEPENDENT* ▶ to download the database-independent parts of the kernel.

         > ✤ Example
         >
         > ```
         > SAPEXE_1110-80002623.SAR
         > Kernel Part I (753) (*)
         > ```
         >
         > SAPEXE_1118-80002612.SAR

       - Select ▶ `<Your DB>` ▶ to download the database-independent parts of the kernel.

         > ✤ Example
         >
         > ```
         > SAPEXEDB_1110-80002623.SAR
         > Kernel Part II (753) (*)
         > ```

     - To download the remaining media required for your SAP product, you can use one of the following navigation paths:
       - https://me.sap.com/softwarecenter ▶ *INSTALLATIONS & UPGRADES* ▶ *By Category* ▶ *SAP NETWEAVER AND COMPLEMENTARY PRODUCTS* ▶ `<Product>` ▶ `<Product Release>` ▶
       - https://me.sap.com/softwarecenter ▶ *INSTALLATIONS & UPGRADES* ▶ *By Alphabetical Index (A-Z)* ▶ `<First Letter of Product>` ▶ `<Product>` ▶ `<Product Release>` ▶
   - Material number

All download objects that are part of an installation medium have the same material number and an individual sequence number:
`<Kernelpart>_<Sequence Number>-<Material Number>`

> **Example**
>
> ```
> SAPEXE_1110-80002623.SAR
> Kernel Part I (753) (*)
> SAPEXE_1111-80002623.SAR
> Kernel Part I (753) (*)
> SAPEXE_1112-80002623.SAR
> Kernel Part I (753) (*)
> ```

> **Example**
>
> ```
> SAPEXEDB_1110-80002623.SAR
> Kernel Part II (753) (*)
> SAPEXEDB_1111-80002623.SAR
> Kernel Part II (753) (*)
> SAPEXEDB_1112-80002623.SAR
> Kernel Part II (753) (*)
> ```

- Title
  All objects that are part of an installation medium have the same title, such as `<Solution><Media_Name><OS>` or `<Database>RDBMS<OS>` for database media.

4. Download the objects to the download directory.
5. To correctly re-combine the media that are split into small parts, unpack all parts into the same directory.

   In the unpacking directory, the system creates a subdirectory with a short text describing the medium and copies the data into it. The data is now all in the correct directory, the same as on the medium that was physically produced. For more information, see SAP Note 1258173.

> **Caution**
>
> Make sure that you unpack each installation media to a separate folder. Do not unpack installation media to the same folder where you unpack the Software Provisioning Manager archive.
>
> Do not unpack installation media to the same folder where you unpack the SAP kernel archives for archive-based installation.

4 Installation

4.1 Prerequisites for Running Software Provisioning Manager

Make sure you fulfil the following prerequisites before running the software provisioning manager.

- For the SL-UI, make sure that the following web browser requirements are met:
  - You have one of the following supported browsers on the device where you want to run the SL-UI:
    - Google Chrome (recommended)
    - Mozilla Firefox
    - Microsoft Edge
    - Microsoft Internet Explorer 11 or higher.

    Always use the latest version of these web browsers.
  - If you copy the SL-UI URL manually in the browser window, make sure that you open a new Web browser window in private browsing mode (Internet Explorer), incognito mode (Chrome) or private browsing mode (Firefox). This is to prevent Web browser plugins and settings from interfering with the SL-UI.

  > ⚠ Caution
  >
  > The software provisioning manager uses a self-signed certificate, which is used temporarily only while the software provisioning manager is running. This certificate is not trusted by the browser unless it is imported manually by the user running the software provisioning manager. This behavior is intentionally designed in this way because - unlike ordinary public web servers - the software provisioning manager has different usage patterns. You must configure your browser do trust the self-issued certificate of the software provisioning manager after carefully performing the “thumbprint” verification described in Running Software Provisioning Manager [page 35] . For more information about adding trusted certificates, see the documentation of your browser.

  For more information about the SL-UI, see Useful Information about Software Provisioning Manager [page 39].

- If you want to enable Internet Protocol Version 6 (IPv6), make sure that you set **`SAP_IPv6_ACTIVE=1`** in the environment of the user with the required authorization [page 23] to run the software provisioning

manager. While running the software provisioning manager, this setting is then also added to the environment of the `<sapsid>adm` user.

> **Note**
>
> By applying this setting the SAP system administrator is responsible for configuring the IP version on each host of the system landscape, before installing any additional instance to it.

- You need at least 700 MB of free space in the installation directory for each installation option. In addition, you need 700 MB free space for the software provisioning manager executables. The software provisioning manager creates an installation directory `sapinst_instdir`, where it keeps its log files, and which is located directly in the `%ProgramFiles%` directory. For more information, see Useful Information about Software Provisioning Manager [page 39].
- Make sure that you have defined the most important SAP system parameters as described in Basic Installation Parameters [page 19] **before** you start the installation.
- Make sure that the following ports are not used by other processes:
  - Port 4237 is used by default as HTTPS port for communication between the software provisioning manager and the SL-UI.
    If this port cannot be used, you can assign a free port number by executing `sapinst.exe` with the following command line parameter:
    `SAPINST_HTTPS_PORT=<Free Port Number>`
  - Port 4239 is used by default for displaying the feedback evaluation form at the end of the software provisioning manager processing.
    The filled-out evaluation form is then sent to SAP using HTTPS.
    If this port cannot be used, you can assign a free port number by executing `sapinst.exe` with the following command line parameter:
    `SAPINST_HTTP_PORT=<Free Port Number>`

4.2 Running Software Provisioning Manager

This section describes how to run the software provisioning manager.

Prerequisites

For more information, see Prerequisites for Running Software Provisioning Manager [page 34].

Context

The software provisioning manager has a web browser-based GUI named “SL-UI of the software provisioning manager” - “SL-UI” for short.

This procedure describes an installation where you run the software provisioning manager and use the SL-UI, that is you can control the processing of the software provisioning manager from a browser running on any device.

For more information about the SL-UI, see Useful Information about Software Provisioning Manager [page 39].

Procedure

1. Log on to the installation host using an account with the required user authorization to run the software provisioning manager [page 23].

   > ⚠ Caution
   >
   > Do **not** use an existing `<sapsid>adm` or the built-in administrator account user.

   If your security policy requires that the person running the software provisioning manager is not allowed to know administrator credentials on the installation host, you can specify another operating system user for authentication purposes. You do this using the `SAPINST_REMOTE_ACCESS_USER` parameter when starting `sapinst.exe` from the command line. You must confirm that the user is a trusted one. For more information, see SAP Note 1745524.

2. Make the installation media available.

   For more information, see Preparing the Installation Media [page 28] .

3. Start the software provisioning manager from the directory to which you unpacked the Software Provisioning Manager archive with the following command:

   `sapinst.exe` (in a command prompt)

   `.\sapinst.exe` (in PowerShell)

   By default, the SL-UI uses the default browser defined for the host where you run the software provisioning manager. However, you can also specify another supported web browser available on the host where you start the software provisioning manager. You can do this by starting the `sapinst` executable with command line option **`SAPINST_BROWSER=<Path to Browser Executable>`**, for example **`SAPINST_BROWSER=firefox.exe`**.

   > ⓘ Note
   >
   > If you need to assign a virtual host name to the instance to be installed and you do not want to assign it by entering it as a parameter using the software provisioning manager screens (see Basic Installation Parameters [page 19]), you can alternatively assign it as follows:
   >
   > 1. Open a command prompt or `PowerShell` window in elevated mode and change to the directory to which you unpacked the Software Provisioning Manager archive.
   > 2. Start the software provisioning manager with the following command:
   >   **`sapinst.exe SAPINST_USE_HOSTNAME=<Virtual_Host_Name>`** (in a command prompt)
   >   **`.\sapinst.exe SAPINST_USE_HOSTNAME=<Virtual_Host_Name>`** (in `PowerShell`)
   >
   > For more information, see Using Virtual Host Names [page 27].

4. The software provisioning manager now starts and waits for the connection with the SL-UI.

   If you have a supported web browser (see Prerequisites for Running Software Provisioning Manager [page 34]) installed on the host where you run the software provisioning manager, the SL-UI starts automatically by displaying the *Welcome* screen.

   If the SL-UI does not open automatically, you can find the URL you require to access the SL-UI at the bottom of the *Program Starter* window of the software provisioning manager. You find the icon of the *Program Starter* window in the taskbar of your Windows host. Open a supported web browser and run the URL from there.

```
...
************************************************************************
Open your browser and paste the following URL address to access the GUI
https://[<hostname>]:4237/sapinst/docs/index.html
Logon users: [<users>]
************************************************************************
...
```

> ### Note
>
> If the host specified by `<hostname>` cannot be reached due to a special network configuration, proceed as follows:
>
> 1. Terminate the software provisioning manager as described in Useful Information about Software Provisioning Manager [page 39].
> 2. Restart the software provisioning manager from the command line with the **`SAPINST_GUI_HOSTNAME=<hostname>`** property.
>   You can use a fully-qualified host name.

> ### Caution
>
> After opening the browser URL, make sure that the URL in the browser starts with “https://” to avoid security risks such as SSL stripping .
>
> Before you reach the *Welcome* screen, your browser warns you that the certificate of the `sapinst` process on this computer could not be verified.
>
> Proceed as follows to avoid security risks such as a man-in-the-middle attack:
>
> 1. Click on the certificate area on the left hand side in the address bar of your browser, and view the certificate.
> 2. Open the certificate fingerprint or thumbprint, and compare all hexadecimal numbers to the ones displayed in the console output of the software provisioning manager.
>   Proceed as follows to get the certificate fingerprint or thumbprint from the server certificate printed in the software provisioning manager console:
>   1. Go to the `sapinst_exe.xxxxxx.xxxx` directory in the temporary directory to which the software provisioning manager has extracted itself:
>   `%userprofile%\.sapinst\`
>   2. In the `sapinst_exe.xxxxxx.xxxx` directory, execute the `sapgenpse` tool with the command line option **`get_my_name -p`**.
>
>   As a result, you get the server fingerprint or thumbprint from the server certificate.
> 3. Accept the warning to inform your browser that it can trust this site, even if the certificate could not be verified.

The SL-UI opens in the browser by displaying the *Welcome* screen.

5. On the *Welcome* screen, choose the required option:
   - To install a new standalone Gateway instance, choose ▶ `<Product>` ▶ `<Database>` ▶ *Installation* ▶ *Standalone Engines* ▶ *Gateway* ▶.
   - To rename an existing standalone Gateway instance, go to *System Rename* and choose ▶ *Distributed System* ▶ *System Rename for Gateway Instance* ▶
   - To uninstall an existing standalone Gateway instance, go to ▶ *Generic Options* ▶ `<Database>` ▶ *Uninstall* ▶ and choose ▶ *Uninstall - SAP Systems or Single Instances* ▶
6. Choose *Next*.

> **Note**
>
> If there are errors during the self-extraction process of the software provisioning manager, you can find the log file `dev_selfex.out` in the temporary directory.

7. If the software provisioning manager prompts you to log off from your system, log off and log on again.

   The software provisioning manager restarts automatically.
8. Follow the instructions on the software provisioning manager screens and enter the required parameters.

> **Note**
>
> To find more information on each parameter during the *Define Parameters* phase, position the cursor on the required parameter input field , and choose either F1 or the *HELP* tab. Then the available help text is displayed in the *HELP* tab.

> **Caution**
>
> The digital signature of installation media and installation archives is checked **automatically** during the *Define Parameters* phase while processing the *Media Browser* and - if you perform an archive-based installation - the *Software Package Browser* screens.
>
> Note that this automatic check is only committed once and **not** repeated if you modify artifacts such as SAR archives or files on the media **after** the initial check has been done. This means that - if you modify artefacts later on either during the remaining *Define Parameters* phase or later on during the *Execute Service* phase - the digital signature is not checked again.
>
> For more information, see SAP Note 2393060.

   After you have entered all requested input parameters, the software provisioning manager displays the *Parameter Summary* screen. This screen shows both the parameters that you entered and those that the software provisioning manager set by default. If required, you can revise the parameters before starting the installation.
9. To start the installation, choose *Next*.

   The software provisioning manager starts the installation and displays the progress of the installation. When the installation has finished, the software provisioning manager shows the message: `Execution of <Option_Name> has completed`.
10. If you copied the software provisioning manager software to your hard disk, you can delete these files when the installation has successfully completed.

11. For security reasons, we recommend that you delete the `.sapinst` directory within the home directory of the user with which you ran the software provisioning manager:

    ```
    %userprofile%\.sapinst\
    ```

12. The software provisioning manager log files contain IP addresses and User IDs such as the ID of your S-User. For security, data protection, and privacy-related reasons we strongly recommend that you delete these log files once you do not need them any longer.

    You find the software provisioning manager log files in the `sapinst_instdir` directory. For more information, see Useful Information about Software Provisioning Manager [page 39].

4.3 Additional Information about Software Provisioning Manager

The following sections provide additional information about the software provisioning manager.

Useful Information about Software Provisioning Manager [page 39]
This section contains some useful technical background information about the software provisioning manager and the software provisioning manager's SL-UI.

How to Avoid Automatic Logoff by Software Provisioning Manager [page 41]

Restarting Interrupted Processing of Software Provisioning Manager [page 42]
Here you find information about how to restart the software provisioning manager if its processing has been interrupted.

Troubleshooting with Software Provisioning Manager [page 45]
This section tells you how to proceed when errors occur while the software provisioning manager is running.

Using the Step State Editor (SAP Support Experts Only) [page 46]
This section describes how to use the `Step State Editor` available in the software provisioning manager.

4.3.1 Useful Information about Software Provisioning Manager

This section contains some useful technical background information about the software provisioning manager and the software provisioning manager's SL-UI.

- The software provisioning manager has a framework named “SAPinst”. For more information about the current SAPinst Framework version and its features, see SAP Note 3207613 (*SAPinst Framework 753 Central Note*).
- The software provisioning manager has the web browser-based “SL-UI of the software provisioning manager” - “SL-UI” for short.

The SL-UI uses the SAP UI Development Toolkit for HTML5 - also known as SAPUI5 - a client-side HTML5 rendering library based on JavaScript. The benefits of this new user interface technology for the user are:

- Zero foot print, since only a web browser is required on the client
- New controls and functionality, for example, view logs in web browser.

As of version 1.0 SP24 Patch Level (PL) 5, the software provisioning manager comes with a new look and feel of the SL-UI. For more information, see https://blogs.sap.com/2018/11/10/new-look-for-software-provisioning-manager/.

The SL-UI connects the web browser on a client with the `sapinst` executable - which is part of software provisioning manager - running on the installation host using the standard protocol HTTPS.

For the SL-UI, the software provisioning manager provides a pre-generated URL in the *Program Starter* window. If you have a supported web browser installed on the host where you run the software provisioning manager, the SL-UI starts automatically.

By default, the SL-UI uses the default browser defined for the host where you run the software provisioning manager. However, you can also specify another supported web browser available on the host where you start the software provisioning manager. You can do this by starting the `sapinst` executable with command line option **`SAPINST_BROWSER=<Path to Browser Executable>`**, for example **`SAPINST_BROWSER=firefox.exe`**.

Alternatively you can open a supported web browser on any device and run the URL from there.

For more information about supported web browsers see Prerequisites for Running Software Provisioning Manager [page 34].

If you need to run the **SL-UI** in **accessibility mode**, apply the standard accessibility functions of your web browser.

- As soon as you have started the `sapinst.exe` executable, the software provisioning manager creates a `.sapinst` directory underneath the `<Drive>:\Users\<User>` directory where it keeps its logs and other technical files. `<User>` is the user which you used to start the software provisioning manager.
  After you have reached the *Welcome* screen and selected the relevant software provisioning manager option for the SAP system or instance to be installed , the software provisioning manager creates a directory `sapinst_instdir`, where it keeps its logs and other technical files, and which is located directly in the `%ProgramFiles%` directory. If the software provisioning manager is not able to create `sapinst_instdir` there, it tries to create `sapinst_instdir` in the directory defined by the `TEMP` environment variable.
  All log files which have been stored so far in the `.sapinst` folder are moved to the `sapinst_instdir` directory as soon as the latter has been created.
  The software provisioning manager records its progress in the `keydb.xml` file located in the `sapinst_instdir` directory. Therefore, if required, you can continue with the software provisioning manager from any point of failure, without having to repeat the already completed steps and without having to reenter the already processed input parameters. For security reasons, a variable encryption key is generated as soon as the `sapinst_instdir` directory is created by the software provisioning manager. This key is used to encrypt the values written to the `keydb.xml` file.

  > → Recommendation
  >
  > We recommend that you keep all installation directories until the system is completely and correctly installed.

- The software provisioning manager extracts itself to a temporary directory (`TEMP`, `TMP`, `TMPDIR`, or `SystemRoot`). These executables are deleted after the software provisioning manager has stopped running.
  Directories called `sapinst_exe.xxxxxx.xxxx` sometimes remain in the temporary directory after the software provisioning manager has finished. You can safely delete them.

The temporary directory also contains the log file `dev_selfex.out` from the self-extraction process of the software provisioning manager, which might be useful if an error occurs.

> ⚠ Caution
>
> If the software provisioning manager cannot find a temporary directory, the installation terminates with the error `FCO-00058`.

- To see a list of all available software provisioning manager properties (command line options) and related documentation, open a command prompt and start the software provisioning manager with command line parameter `-p`:
  ```
  sapinst -p
  ```
- If required, stop the software provisioning manager by choosing the *Cancel* button.

> ⓘ Note
>
> If you need to terminate the software provisioning manager, choose *File* > *Exit* in the menu of the *Program Starter* window.

4.3.2 How to Avoid Automatic Logoff by Software Provisioning Manager

When you install the SAP system, the installation tool checks whether the user account used for the installation has the required privileges and authorization.

For a local or domain installation, the account needs to be a member of the local `Administrators` group.

For domain installations the account can be either a member of the `Domain Admins` group, or belongs to the `Domain Users` group and has the necessary rights to create/modify objects in the domain.

In both cases, the user account must be authorized to do the following:

- Act as part of the operating system
- Adjust memory quotas for a process
- Replace a process level token

If the user account does not have these rights assigned, the software provisioning manager assigns them and automatically logs the account off to activate them. To avoid the software provisioning manager logging the account off, you can set these rights manually before you start the installation.

Procedure

You perform the following steps to assign these rights to the user account used for the installation.

> ⚠ Caution
>
> Be aware that domain policies override locally defined policies. This means that if you want to grant domain administrator rights to a user who belongs to the local `Administrators` group, make sure that you have also defined domain administrator rights for this user on domain level.

1. Press `Ctrl` + `Esc` and choose *Administrative Tools* > *Local Security Policy*.
2. In the *Local Security Settings* window, choose *Local Policies* > *User Rights Assignment.*.
3. Double-click the required right under *Policy* and choose *Add User or Group*.
4. In the *Select Users and Groups* window, choose the required user and choose *Add*.
   The selected user appears in the box below.
5. Confirm your entry and then repeat the steps for each remaining policy that the user requires for the installation.
6. Log off and log on again to apply the changes.

Related Information

Required User Authorization for Running Software Provisioning Manager [page 23]

4.3.3 Restarting Interrupted Processing of Software Provisioning Manager

Here you find information about how to restart the software provisioning manager if its processing has been interrupted.

Context

The processing of the software provisioning manager might be interrupted for one of the following reasons:

- An error occurred during the *Define Parameters* or *Execute* phase:
  The software provisioning manager does not abort the installation in error situations. If an error occurs, the installation pauses and a dialog box appears. The dialog box contains a short description of the choices listed in the table below as well as a path to a log file that contains detailed information about the error.
- You interrupted the processing of the software provisioning manager by choosing *Cancel* in the SL-UI.

  > ⚠ Caution
  >
  > If you stop an option in the *Execute* phase, any system or component **installed** by this option is incomplete and not ready to be used. Any system or component **uninstalled** by this option is not completely uninstalled.

The following table describes the options in the dialog box:

Option	Definition
Retry	The software provisioning manager retries the installation from the point of failure without repeating any of the previous steps. This is possible because the software provisioning manager records its progress in the `keydb.xml` file. We recommend that you view the entries in the log files, try to solve the problem, and then choose *Retry*. If the same or a different error occurs, the software provisioning manager displays the same dialog box again.
Stop	The software provisioning manager stops the installation, closing the dialog box and the software provisioning manager's SL-UI. The software provisioning manager records its progress in the `keydb.xml` file. Therefore, you can continue with the software provisioning manager from the point of failure without repeating any of the previous steps. See the procedure below.
Continue	The software provisioning manager continues the installation from the current point.
View Log	Access installation log files.

The following procedure describes the steps to restart an installation, which you stopped by choosing *Stop*, or to continue an interrupted installation after an error situation.

Procedure

1. Log on to the installation host as a user with the required permissions as described in Running Software Provisioning Manager [page 35] .
2. Make sure that the installation media are still available.

   For more information, see Preparing the Installation Media [page 28] .

   > → Recommendation
   >
   > Make the installation media available **locally**. For example, if you use remote file shares on other Windows hosts, CIFS shares on third-party SMB-servers, or Network File System (NFS), reading from media mounted with NFS might fail.

3. Restart the software provisioning manager by double-clicking **`sapinst.exe`** from the directory to which you unpacked the software provisioning manager archive.

   By default, the SL-UI uses the default browser defined for the host where you run the software provisioning manager. However, you can also specify another supported web browser available on the host where you start the software provisioning manager. You can do this by starting the `sapinst` executable with command line option **`SAPINST_BROWSER=<Path to Browser Executable>`**, for example **`SAPINST_BROWSER=firefox.exe`**.

4. The software provisioning manager is restarting.

   If you have a supported web browser (see Prerequisites for Running Software Provisioning Manager [page 34]) installed on the host where you run the software provisioning manager, the SL-UI starts automatically by displaying the *Welcome* screen.

   If the SL-UI does not open automatically, you can find the URL you require to access the SL-UI at the bottom of the *Program Starter* window of the software provisioning manager. You find the icon of the *Program Starter* window in the taskbar of your Windows host. Open a supported web browser and run the URL from there.

```
...
************************************************************************
Open your browser and paste the following URL address to access the GUI
https://[<hostname>]:4237/sapinst/docs/index.html
Logon users: [<users>]
************************************************************************
...
```

> ### Note
>
> If the host specified by `<hostname>` cannot be reached due to a special network configuration, proceed as follows:
>
> 1. Terminate the software provisioning manager as described in Useful Information about Software Provisioning Manager [page 39].
> 2. Restart the software provisioning manager from the command line with the **`SAPINST_GUI_HOSTNAME=<hostname>`** property.
>   You can use a fully-qualified host name.

> ### Caution
>
> After opening the browser URL, make sure that the URL in the browser starts with “https://” to avoid security risks such as SSL stripping .
>
> Before you reach the *Welcome* screen, your browser warns you that the certificate of the `sapinst` process on this computer could not be verified.
>
> Proceed as follows to avoid security risks such as a man-in-the-middle attack:
>
> 1. Click on the certificate area on the left hand side in the address bar of your browser, and view the certificate.
> 2. Open the certificate fingerprint or thumbprint, and compare all hexadecimal numbers to the ones displayed in the console output of the software provisioning manager.
>   Proceed as follows to get the certificate fingerprint or thumbprint from the server certificate printed in the software provisioning manager console:
>   1. Go to the `sapinst_exe.xxxxxx.xxxx` directory in the temporary directory to which the software provisioning manager has extracted itself:
>   `%userprofile%\.sapinst\`
>   2. In the `sapinst_exe.xxxxxx.xxxx` directory, execute the `sapgenpse` tool with the command line option **`get_my_name -p`**.
>
>   As a result, you get the server fingerprint or thumbprint from the server certificate.
> 3. Accept the warning to inform your browser that it can trust this site, even if the certificate could not be verified.

The SL-UI opens in the browser by displaying the *Welcome* screen.

5. From the tree structure on the *Welcome* screen, select the installation option that you want to continue and choose *Next*.

   The *What do you want to do?* screen appears.

6. On the *What do you want to do?* screen, decide between the following alternatives and continue with *Next*:

Alternative	Behavior

Perform a new run	The software provisioning manager does not continue the interrupted installation option. Instead, it moves the content of the old software provisioning manager directory and all software provisioning manager-specific files to a backup directory. Afterwards, you can no longer continue the old option.
	The following naming convention is used for the backup directory:
	`log_<Day>_<Month>_<Year>_<Hours>_<Minutes>_<Seconds>`
	Example
	`log_01_Oct_2016_13_47_56`
	Note
	All actions taken by the installation before you stopped it (such as creating directories or users) are not revoked.
	Caution
	The software provisioning manager moves all the files and folders to a new log directory, even if these files and folders are owned by other users. If there are any processes currently running on these files and folders, they might no longer function properly.

Continue with the existing one	The software provisioning manager continues the interrupted installation from the point of failure.

4.3.4 Troubleshooting with Software Provisioning Manager

This section tells you how to proceed when errors occur while the software provisioning manager is running.

Context

If an error occurs, the software provisioning manager:

- Stops processing

- Displays a dialog informing you about the error

Procedure

1. Check SAP Note SAP Note 3207613 (*SAPinst Framework 753 Central Note*) for known software provisioning manager issues.
2. If an error occurs during the *Define Parameters* or the *Execute Service* phase, do one of the following:
   - Try to solve the problem:
     - To check the software provisioning manager log files (`sapinst.log` and `sapinst_dev.log`) for errors, choose the *LOG FILES* tab.

       > **Note**
       >
       > The *LOG FILES* tab is only available if you have selected on the *Welcome* screen the relevant software provisioning manager option for the SAP product to be installed .
       >
       > If you need to access the log files before you have done this selection, you can find the files in the `.sapinst` directory underneath the `<Drive>:\Users\<User>` directory, where `<User>` is the user that you used to start the software provisioning manager.
       >
       > For more information, see Useful Information about Software Provisioning Manager [page 39].

     - To check the log and trace files of the software provisioning manager's SL-UI for errors, go to the directory `%userprofile%\.sapinst\`
     - Then continue by choosing *Retry*.
   - If required, abort the software provisioning manager by choosing *Cancel* in the tool menu and restart the software provisioning manager. For more information, see Restarting Interrupted Processing of Software Provisioning Manager [page 42].
3. If you cannot resolve the problem, report an incident using the appropriate subcomponent of BC-INS*.

   For more information about using subcomponents of BC-INS*, see SAP Note 1669327.

4.3.5 Using the Step State Editor (SAP Support Experts Only)

This section describes how to use the `Step State Editor` available in the software provisioning manager.

> **Note**
>
> Only use the `Step State Editor` if the SAP Support requests you to do so, for example to resolve a customer incident.

Prerequisites

- SAP Support requests you to use the `Step State Editor`.
- Make sure that the host where you run the software provisioning manager meets the requirements listed in Prerequisites for Running Software Provisioning Manager [page 34].

Procedure

1. Start the software provisioning manager from the command line as described in Running Software Provisioning Manager [page 35] with the additional command line parameter **`SAPINST_SET_STEPSTATE=true`**
2. Follow the instructions on the software provisioning manager screens and fill in the parameters prompted during the *Define Parameters* phase until you reach the *Parameter Summary* screen.
3. Choose *Next*.

   The `Step State Editor` opens as an additional dialog. Within this dialog you see a list of all steps to be executed by the software provisioning manager during the *Execute Service* phase. By default all steps are in an initial state. Underneath each step, you see the assigned software provisioning manager component. For each step you have a *Skip* and a *Break* option.

   - Mark the checkbox in front of the *Break* option of the steps where you want the software provisioning manager to pause.
   - Mark the checkbox in front of the *Skip* option of the steps which you want the software provisioning manager to skip.
4. After you have marked all required steps with either the *Break* or the *Skip* option, choose *OK* on the *Step State Editor* dialog.

   The software provisioning manager starts processing the *Execute Service* phase and pauses one after another when reaching each step whose *Break* option you have marked. You can now choose one of the following:

   - Choose *OK* to continue with this step.
   - Choose *Step State Editor* to return to the `Step State Editor` and make changes, for example you can repeat the step by marking the checkbox in front of the *Repeat* option.
   - Choose *Cancel* to abort the software provisioning manager.
5. Continue until you have run through all the steps of the *Execute Service* phase of the software provisioning manager.

5 Post-Installation Activities

5.1 Ensuring User Security

You need to ensure the security of the users that the software provisioning manager created during the installation.

> → Recommendation
>
> The Master Password feature can be used as a simple method to obtain customer-specific passwords for all newly created users. A basic security rule is not to have identical passwords for different users. Following this rule, we strongly recommend individualizing the values of these passwords after the installation is complete.

> → Recommendation
>
> In all cases, the user ID and password are encoded only when transported across the network. Therefore, we recommend using encryption at the network layer, either by using the Secure Sockets Layer (SSL) protocol for HTTP connections, or Secure Network Communications (SNC) for the SAP protocols dialog and RFC.

> ⚠ Caution
>
> Make sure that you perform this procedure **before** the newly installed SAP system goes into production.

Operating System Users

Operating System Users

User Type	User	Comment
Operating system user	`<sapsid>adm`	Administrator for the Standalone Gateway.
Operating system user	`SAPService<SAPSID>`	User to run the Standalone Gateway.

SAP Host Agent User

User Type	User	Comment
Operating system user	`sapadm`	SAP Host Agent administrator is the user for central monitoring services. You do not need to change the password of this user after the installation. This user is for administration purposes only. You are not able to log on as `sapadm` as this user is locked.

5.2 Gateway Configuration

You have to configure the gateway to be able to use it.

You can find the configuration documentation in the SAP Library [page 14] at: *SAP NetWeaver Library: Function-Oriented View* > *Application Server Infrastructure* > *Connectivity* > *Gateway*

6 Additional Information

6.1 Using Virtual Host Names

You can use one or more virtual `TCP/IP` host names for SAP servers within an SAP server landscape to hide their physical network identities from each other. This can be useful when quickly moving SAP servers or complete server landscapes to alternative hardware since you do not need to reinstall or reconfigure.

Prerequisites

- Make sure that the virtual host name can be correctly resolved in your Domain Name System (DNS) setup.
- Make sure that you configured the Windows operating system properly to use virtual host names. For more information, see SAP Note 1564275.

Context

Procedure

To install a **non-high-availability** system, proceed as described in SAP Note 1564275.

6.2 Checking and Changing the Paging File Settings on Windows Server

This section describes how to check and change the paging file size on Windows Server with PowerShell.

The PowerShell commands also work in previous Windows versions where PowerShell is available.

> **Note**
>
> Some paging file operations require a reboot of the server to activate the changes you made. Wmi-commands do not indicate whether a reboot is required or not. Therefore, we recommend rebooting your system every time you change the paging file settings with PowerShell.

Prerequisites

Always start the PowerShell in elevated mode (run as administrator).

Procedure

Checking the Size of a Paging File

1. Start Windows PowerShell.
2. Check whether the default value *Automatic manage pagefile size for all devices* is activated.

   > **Note**
   >
   > We do not support automatically managed page file sizes.

   To check this, enter the following command:
   ```
   (Get-WmiObject Win32_Pagefile) -eq $null
   ```
   If *Automatic manage pagefile size for all devices* is enabled, the output value is *True*.
   If necessary, disable *Automatic manage pagefile size for all devices* with the following command:
   ```
   $sys = Get-WmiObject Win32_Computersystem –EnableAllPrivileges
   $sys.AutomaticManagedPagefile = $false
   $sys.put()
   ```
3. Check the size of the paging files with the following command:
   ```
   Get-WmiObject WIN32_Pagefile | Select-Object Name, InitialSize, MaximumSize, FileSize
   ```
   The output looks like the following:

   ```
   Name                 InitialSize
   MaximumSize              FileSize
   ----                 -----------
   -----------              --------
   C:\pagefile.sys                0                     0
   41943040000
   E:\pagefile.sys            40000                 80000
   41943040000
   ```

   In this example, in the first line, the *InitialSize* and *MaximumSize* values of a paging file are 0, which means that the paging file size is *system managed* (not recommended).
   In the second line, the paging file size has a minimum and a maximum size (recommended).

Changing the Size of a Single Paging File

Changing the *InitialSize* and *MaximumSize* values of a paging file to a size other than 0, will automatically switch off *system managed size*.

In the following example, we change the size of the paging file on *C:* to the *InitialSize* of 40 GB and to the *MaximumSize* of 80 GB.

Use the following commands in a PowerShell:

```
$Pagefile = Get-WmiObject Win32_PagefileSetting | Where-Object {$_.name -eq “C:\pagefile.sys”}
```

```
$Pagefile.InitialSize = 40000

$Pagefile.MaximumSize = 80000

$Pagefile.put()
```

Typically, you choose the same value for *InitialSize* and *MaximumSize*.

> **Note**
>
> The sum of all paging files *InitialSize* values must be equal to or higher than the value recommended for your SAP system.

Creating a Second Paging File on Another Disk

You might want to create a second or additional paging files to improve system performance, or if your disk does not have enough space.

To do so, enter the following commands in a PowerShell:

```
$Pagefile = Get-WmiObject Win32_PagefileSetting

$pagefile.Name = “E:\pagefile.sys”

$pagefile.Caption = “E:\pagefile.sys”

$pagefile.Description = “’pagefile.sys’ @ E:\”

$pagefile.SettingID =”pagefile.sys @ E:”

$pagefile.InitialSize = 80000

$pagefile.MaximumSize = 80000

$pagefile.put()
```

Deleting a Paging File on a Specific Device

To delete a paging file, enter the following commands in a PowerShell:

```
$pagefile = Get-WmiObject Win32_PagefileSetting | Where-Object {$_.name -eq
“E:\pagefile.sys”}

$pagefile.delete()
```

6.3 Starting and Stopping with the SAP Microsoft Management Console (SAP MMC)

You have to check that you can start and stop the standalone Gateway after the installation using the SAP Microsoft Management Console (SAP MMC).

You can start and stop the instance by using the SAP MMC in one of the following ways:

- By using the SAP MMC that was installed by the software provisioning manager automatically on the host of the standalone Gateway.
- By using the SAP MMC on another host of your existing SAP system landscape, If the SAP MMC is configured for central system administration.

Procedure

1. Log on as user `<sapsid>adm`.
2. Start the SAP MMC by choosing *Start* > *All Programs* > *SAP Management Console*.
3. Right-click the icon of the standalone Gateway instance under the *SAP systems* node and choose *Start* or *Stop*.

More Information

For more information, see the SAP Library [page 14] at:

- SAP systems based on SAP NetWeaver for Banking Services from SAP:
  Function-Oriented View > *Application Server ABAP* > *Administration Tools for AS ABAP* > *Monitoring in the CCMS* > *SAP Microsoft Management Console: Windows*
- SAP systems based on SAP NetWeaver Mobile 7.1 / 7.1 including enhancement package 1:
  Function-Oriented View > *Application Server ABAP* > *Administration Tools for AS ABAP* > *Monitoring in the CCMS* > *SAP Microsoft Management Console: Windows*
- SAP systems based on SAP NetWeaver Process Integration 7.1 / 7.1 including enhancement package 1:
  Function-Oriented View > *ABAP Technology / Application Server ABAP* > *Administration Tools for AS ABAP* > *Monitoring in the CCMS* > *SAP Microsoft Management Console: Windows*
- SAP systems based on SAP NetWeaver 7.3 and higher:
  Solution Life Cycle Management > *Solution Monitoring* > *Monitoring in the CCMS* > *SAP Microsoft Management Console: Windows*

6.4 Uninstalling the Gateway Instance

The following procedure describes how to uninstall a standalone Gateway using the software provisioning manager.

Procedure

1. Start the software provisioning manager [page 35].
2. On the Welcome screen, choose *Generic Options* > `<Database>` > *Uninstall* > *Uninstall SAP Systems or Single Instances*.
3. Follow the instructions in the software provisioning manager screens.

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