



SUSE Manager Management Pack for Microsoft System Center Operations Manager

Installation Guide

SUSE Manager Management Pack for Microsoft System
Center Operations Manager



Using separate tools to maintain and patch systems, monitor health compliance and deploy required updates to the Windows and Linux servers can be costly and time-consuming. With SUSE Manager Management Pack for Microsoft System Center Operations Manager, Windows systems administrators can view server health information and perform both Windows and Linux patching duties, all through the same familiar console. This document leads you through the initial installation of SUSE Manager Management Pack for Microsoft System Center Operations Manager.

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1 Prerequisites

SUSE Manager Management Pack for Microsoft System Center Operations Manager requires a working environment with Microsoft System Center Operations Manager (SCOM) and SUSE Manager. The following list outlines the environment and software that should be prepared prior to the installation of the SUSE Manager Management Pack.

- Supported Operating Systems:
 - Windows Server 2008/2008 R2
 - Windows Server 2012/2012 R2
 - Windows Server 2016
- Typical environment required for SUSE Manager Management Pack:
 - Windows Domain Controller (recommended for domain accounts that are used for the installation of Microsoft System Center Operations Manager)
 - SQL Server 2008/R2 and above (required for the installation of Microsoft System Center Operations Manager)
 - One of the following Microsoft System Center Operations Manager versions:
 - Microsoft System Center Operations Manager 2007 R2 (preferably with Cumulative Update 6 or later)
 - Microsoft System Center Operations Manager 2007 R2 Documentation and Deployment Guide - <http://technet.microsoft.com/en-us/library/bb310604.aspx>
 - Microsoft System Center Operations Manager 2007 R2 Cumulative Update 6 Download - <http://www.microsoft.com/en-us/download/details.aspx?id=29850>
 - Microsoft System Center Operations Manager 2007 R2 Cumulative Update 6 Instructions - <http://support.microsoft.com/kb/2626076>
 - Microsoft System Center Operations Manager 2012/R2 (preferably with the latest Update Rollup)

- Microsoft System Center Operations Manager 2012/R2 Documentation and Deployment Guide - <http://technet.microsoft.com/en-us/library/hh205987.aspx>
- Microsoft System Center Operations Manager 2012/R2 Update Rollup 2 Download - <http://www.microsoft.com/en-us/download/details.aspx?id=30421>
- Microsoft System Center Operations Manager 2012 Update Rollup 2 Installation Instructions - <http://support.microsoft.com/kb/2706783>
- Microsoft System Center 2016
- SUSE Manager 2.1, 3 and 3.1
- Linux virtual machines with distribution versions supported by both the Microsoft System Center Operations Manager Cross Platform Management Packs and SUSE Manager
- Microsoft System Center Operations Manager Requirements
 - The cross platform management packs which add support for monitoring Unix/Linux systems must be installed. They are available for download from the following links:
 - Microsoft System Center Operations Manager 2007 R2 Cross Platform Management Packs - <http://www.microsoft.com/en-us/download/details.aspx?id=18891>
 - Microsoft System Center Operations Manager 2012 Cross Platform Management Packs - <http://www.microsoft.com/en-us/download/details.aspx?id=29696>
 - At minimum, the following management packs should be installed:
 - Microsoft.Linux.Library.mp
 - Microsoft.Unix.Library.mp
 - Microsoft.SystemCenter.WSManagement.Library.mp
- SUSE Manager Management Pack Installation Requirements

- .NET 4.0 Framework must be installed prior to running the SUSE Manager Management Pack installer. The Web installer is available from the following URL:
 - <http://www.microsoft.com/en-us/download/details.aspx?id=17851>

2 Management Packs Required to Subscribe Clients to Microsoft System Center Operations Manager

The following table lists the supported operating systems and required management packs to subscribe clients to Microsoft System Center Operations Manager.

TABLE 1: SUPPORTED OS AND MANAGEMENT PATCHES

Linux OS	Management Pack	SCOM 2007 Supportable	SCOM 2012/R2 Supportable	SCOM 2016 Supportable
Red Hat Enterprise Linux 4 (x86/x64)	Microsoft.Linux.RHEL.4.mp	Yes	Yes	Yes
Red Hat Enterprise Linux 5 (x86/x64)	Microsoft.Linux.RHEL.5.mp	Yes	Yes	Yes
Red Hat Enterprise Linux 6 (x86/x64)		Yes	Yes	Yes
SUSE Linux Enterprise Server 9 (x86)	Microsoft.Linux.SLES.9.mp	Yes	Yes	Yes

Linux OS	Management Pack	SCOM 2007 Supportable	SCOM 2012/R2 Supportable	SCOM 2016 Supportable
SUSE Linux Enterprise Server 10 (x86_x64)	Microsoft.Linux.SLES.10.mp	Yes	Yes	Yes
SUSE Linux Enterprise Server 11 (x86_64)	Microsoft.Linux.SLES.11.mp	No	Yes	Yes
SUSE Linux Enterprise Server 12 (x64)	Microsoft.Linux.SLES.12.mp	No	Yes	Yes

3 SUSE Manager Management Pack Installation

To successfully perform patch management tasks, the SUSE Manager Management Pack has to be installed on the Microsoft System Center Operations Manager Client (which is the system containing only the Operations console) and on the Microsoft System Center Operations Manager Server system (which contains only the Server). One single SUSE Manager Management Pack installer will work for the installation on both the Microsoft System Center Operations Manager Client and Server systems.

Follow the below steps to install the SUSE Manager Management Pack:

PROCEDURE 1: STEP-BY-STEP INSTALLATION

1. Copy the installer setup to the system where the installation is required. Follow the below steps to complete the installation process.

- a. Right-click the setup.exe file and select “Run as administrator” as shown below:

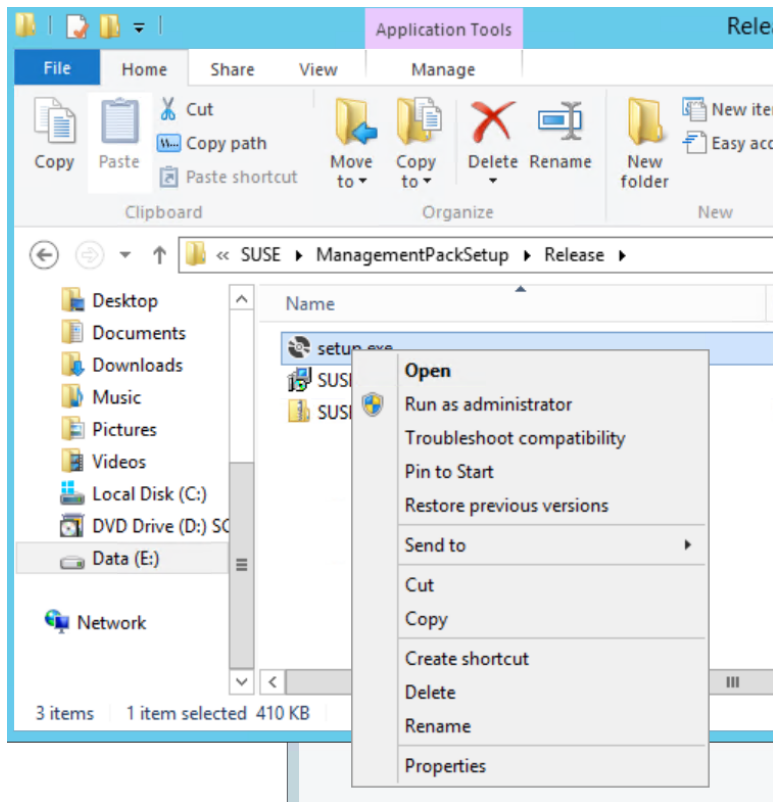


FIGURE 1: SUSE MANAGER MANAGEMENT PACK SETUP

A setup wizard will open:

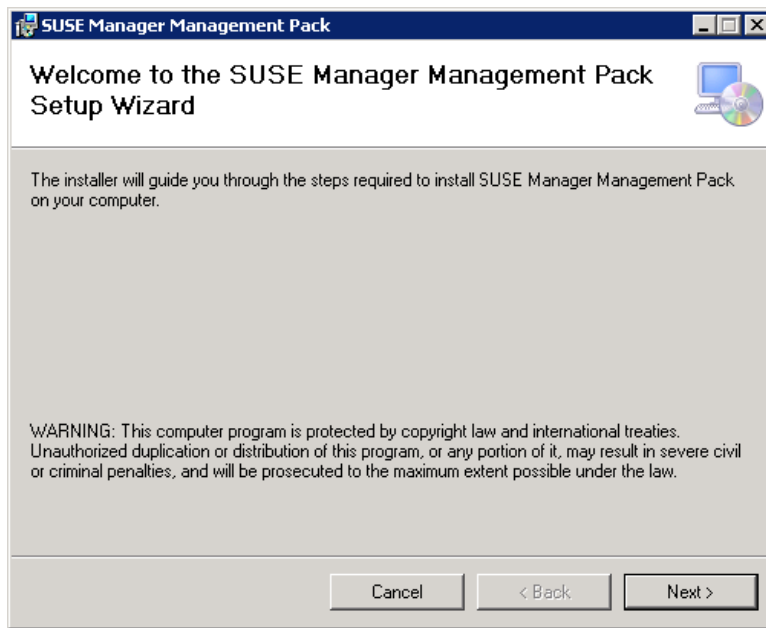


FIGURE 2: SUSE MANAGER MANAGEMENT PACK SETUP WIZARD

- b. Click the “Next” button, select the installation folder path and one of the following options:
- Everyone (can be used by all the users in the system)
 - Just me (can be used only by the installed user)

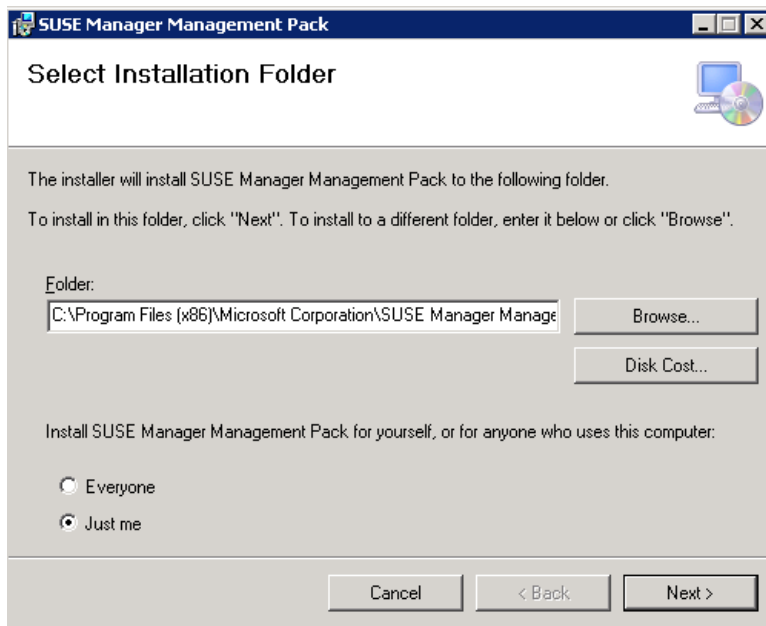


FIGURE 3: INSTALLATION FOLDER SELECTION

c. Click the “Next” button and enter the SUSE Manager Credentials:

- SUSE Manager Server



Important: Host name

Do not include “http/https” in the host name or IP address.

- User Name
- Password

These SUSE Manager details will be stored in the registry keys (SUSEManagerUrl, SUSEManagerUserName, and SUSEManagerPassword).

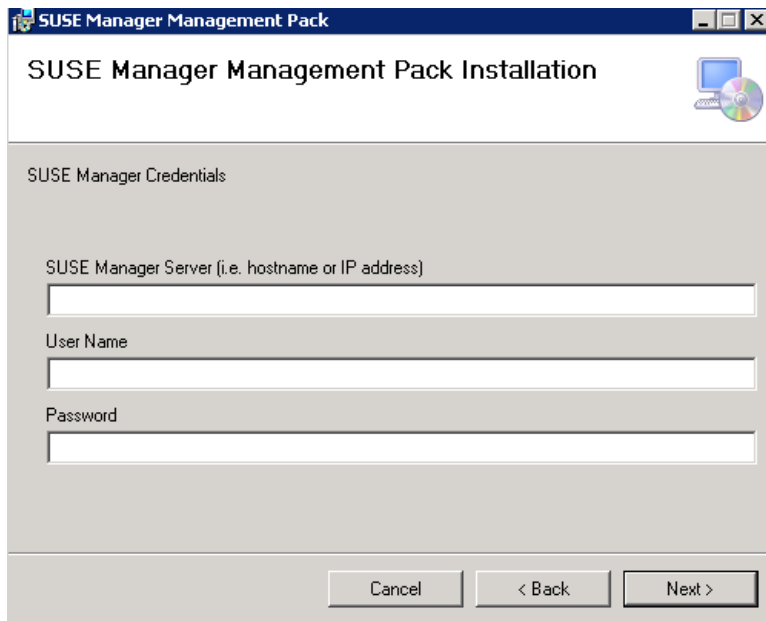


FIGURE 4: SUSE MANAGER CREDENTIALS

- d. Click the “Next” button to confirm the installation.

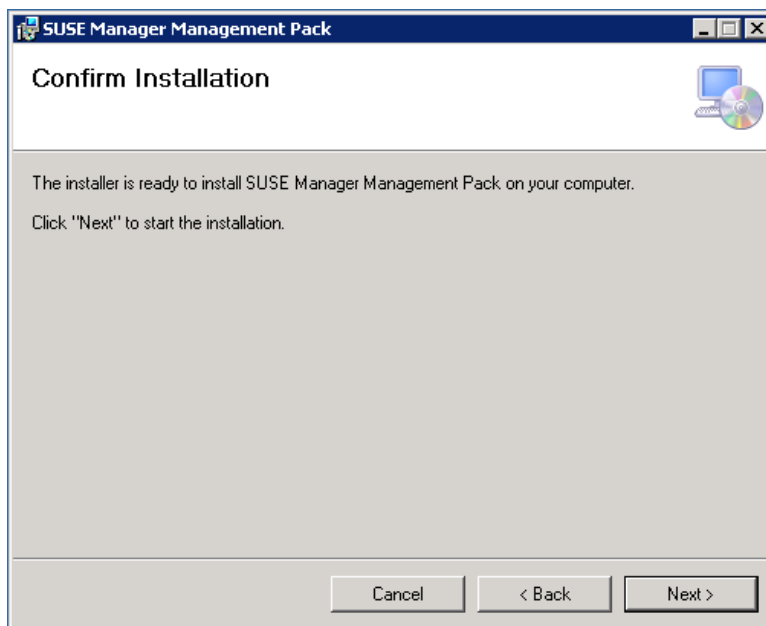


FIGURE 5: INSTALLATION CONFIRMATION

- e. During installation the system checks whether all required management pack references are installed or not. If they are not installed it will prompt an error message with the missing management pack references. When the missing management packs are installed, the installation will continue.
- f. After successful installation, click the “Close” button to exit the Wizard.

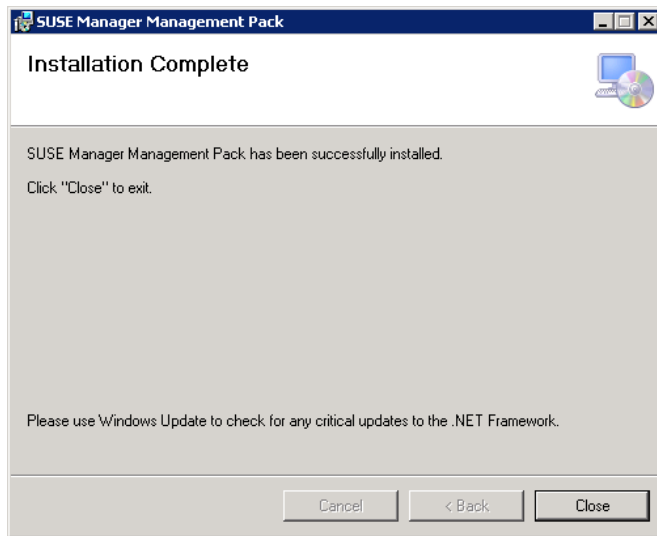


FIGURE 6: INSTALLATION COMPLETION

- g. After the installation is completed, open the Microsoft System Center Operations Manager 2007/2012/R2 console. On the Monitoring Overview screen, check for the new entry and click the link “Unix/Linux Servers”, then click the link “Linux”. You should now see a link called “Patch Management”. See the screenshot below:

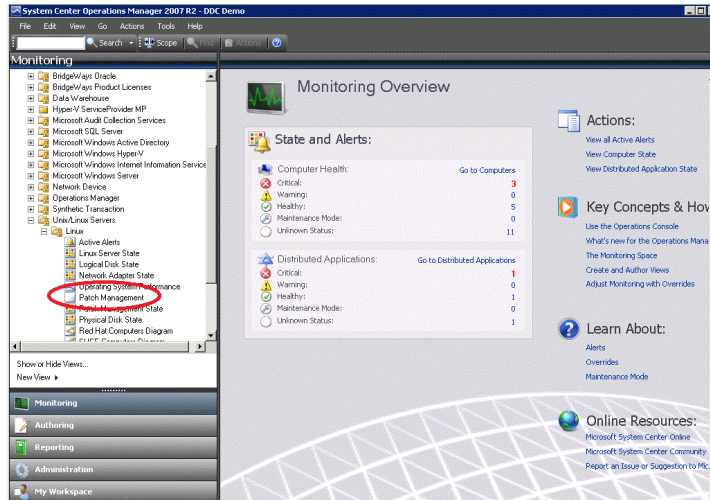


FIGURE 7: PATCH MANAGEMENT SELECTION

2. After successful installation of the SUSE Manager Management Pack, the following binaries and management packs are deployed in the Microsoft System Center Operations Manager root location (for example installation) and the Microsoft System Center Operations Manager database respectively.

- If the Management Pack is installed on a system having only Microsoft System Center Operations Manager Client (that is a system having only Operations Console), the following assemblies are placed into the GAC folder (general path C; c:\Windows\assembly):
 - Microsoft.OpenSolutionsGroup.SuseManager.ViewType.dll
 - Microsoft.OpenSolutionsGroup.SuseManager.Utilities.dll
 - Microsoft.OpenSolutionsGroup.SuseManagerClient.dll
 - CookComputing.XmlRpcV2.dll

The SUSE Manager credentials are updated in the registry at “HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\SUSEManagementPack”.

- If the Management Pack is installed on a system having only the Microsoft System Center Operations Manager Server installed, the following assemblies are placed into the GAC folder (general path C; c:\Windows\assembly):
 - Microsoft.OpenSolutionsGroup.SuseManager.ScomModule.dll
 - Microsoft.OpenSolutionsGroup.SuseManager.Utilities.dll
 - Microsoft.OpenSolutionsGroup.SuseManagerClient.dll
 - CookComputing.XmlRpcV2.dll

The Management Pack “Microsoft.OpenSolutionsGroup.SuseManager.mp” is deployed into the Microsoft System Center Operations Manager database. The SUSE Manager credentials are updated in the registry “HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\SUSEManagementPack”.

- If the Management Pack is installed on a system having both the Microsoft System Center Operations Manager Client and Server installed, the following assemblies are placed into the GAC folder (general path C; c:\Windows\assembly):
 - Microsoft.OpenSolutionsGroup.SuseManager.ViewType.dll
 - Microsoft.OpenSolutionsGroup.SuseManager.ScomModule.dll
 - Microsoft.OpenSolutionsGroup.SuseManager.Utilities.dll
 - Microsoft.OpenSolutionsGroup.SuseManagerClient.dll
 - CookComputing.XmlRpcV2.dll

The Management Pack “Microsoft.OpenSolutionsGroup.SuseManager.mp” is deployed into the Microsoft System Center Operations Manager database. The SUSE Manager credentials are updated in the registry “HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\SUSEManagementPack”.

- To update the SUSE Manager details after a successful installation (for example to point the SUSE Manager Management Pack to a different SUSE Manager server after the installation is completed) use the Desktop shortcut “SUSE Manager MP Settings” or SUSEManagerMPSettings.exe in the Management Pack installation location.
- A log file “LogInfo.txt” exists in the Management Pack installation folder. This log file keeps track of all activities done by the installer in detail during the installation process. If the installation fails, the installer will notify the user with an error message, and error details will be logged in the log file.

```

LogInfo.txt - Notepad
File Edit Format View Help
8/3/2012 7:50:16 AM Information -----Installation started-----
8/3/2012 7:50:16 AM Information SCOM installation criteria checked successfully
8/3/2012 7:50:16 AM Information Checked SUSE Manager mandatory details successfully before continuing the
Installation
8/3/2012 7:50:19 AM Information Successfully validated Locking mechanism (i.e. MP is Locked to work only for SUSE
Manager)
8/3/2012 7:50:19 AM Information SCOM 2007 version is found in the current system
8/3/2012 7:50:19 AM Information SUSE Manager Management Pack import into SCOM server -om2007r2-2.osg.local started
8/3/2012 7:50:21 AM Information SUSE Manager Management Pack is imported successfully.
8/3/2012 7:50:21 AM Information Copying DLL's from installation location to SCOM 2007 installer location process is
started
8/3/2012 7:50:21 AM Information Assembly-C:\Program Files (x86)\Microsoft Corporation\SUSE Manager Management Pack
\CookComputing.XmlRpcv2.dll copied into location -C:\Program Files\System Center Operations Manager
2007\CookComputing.XmlRpcv2.dll successfully
8/3/2012 7:50:21 AM Information Assembly-C:\Program Files (x86)\Microsoft Corporation\SUSE Manager Management Pack
\Microsoft.OpenSolutionsGroup.SuseManager.ViewType.dll copied into location -C:\Program Files\System Center Operations
Manager 2007\Microsoft.OpenSolutionsGroup.SuseManager.ViewType.dll successfully
8/3/2012 7:50:21 AM Information Assembly-C:\Program Files (x86)\Microsoft Corporation\SUSE Manager Management Pack
\Microsoft.OpenSolutionsGroup.SuseManagerClient.dll copied into location -C:\Program Files\System Center Operations Manager
2007\Microsoft.OpenSolutionsGroup.SuseManagerClient.dll successfully
8/3/2012 7:50:21 AM Information Assembly-C:\Program Files (x86)\Microsoft Corporation\SUSE Manager Management Pack
\Microsoft.OpenSolutionsGroup.SuseManager.Utilities.dll copied into location -C:\Program Files\System Center Operations
Manager 2007\Microsoft.OpenSolutionsGroup.SuseManager.Utilities.dll successfully
8/3/2012 7:50:21 AM Information Assembly-C:\Program Files (x86)\Microsoft Corporation\SUSE Manager Management Pack
\SUSEMP2007\Microsoft.OpenSolutionsGroup.SuseManager.ScomModule.dll copied into location -C:\Program Files\System Center
Operations Manager 2007\Microsoft.OpenSolutionsGroup.SuseManager.ScomModule.dll successfully
8/3/2012 7:50:21 AM Information Copied successfully all dll's from installation location to SCOM installer location
8/3/2012 7:50:21 AM Information Installation process completed successfully

```

FIGURE 8: EXAMPLE FOR LOG FILE TEXT

4 SUSE Manager Management Pack Manual Installation Process

For the manual installation of the SUSE Manager Management Pack installation follow the steps below:

- Extract all files into a new folder.
- Place all binaries into the respective folder as specified under *Section 3, “SUSE Manager Management Pack Installation”, Procedure 1, “Step-by-Step Installation”, Step 2* above.
- Use SUSEManagerMPSettings.exe from the above extracted folder to update the SUSE Manager credentials in the registry.

4. If you are installing the SUSE Manager Management Pack on a system where Microsoft System Center Operations Manager Server is installed, open the application “Operations Console” and import the SUSE Manager Management Pack (Microsoft.OpenSolutionsGroup.SuseManager.mp) from the above extracted folder into the Microsoft System Center Operations Manager Database.

5 Uninstalling the SUSE Manager Management Pack

To uninstall the SUSE Manager Management Pack from Microsoft System Center Operations Manager, follow the steps below:

1. Double-click or right-click the installer and select the option “Remove SUSE Manager Management Pack”.
2. Click “Finish” and the Management Pack will be uninstalled.

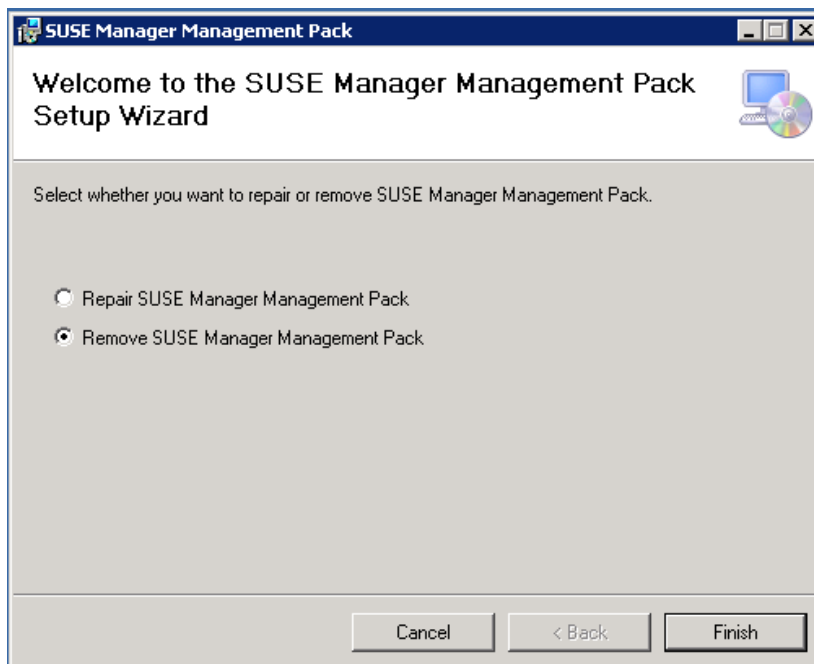


FIGURE 9: UNINSTALLING SUSE MANAGER MANAGEMENT PACK

3. After a successful uninstallation the installer will notify the user.

4. During the uninstallation process, the installer will remove:
 - All binaries from GAC
 - The SUSE Manager Management Pack from Microsoft System Center Operations Manager
 - The file `updateSUSE.exe`, including the SUSE Manager Management Pack installation folder
 - And the registry entries added by the installer during the installation process, as specified under *Section 3, "SUSE Manager Management Pack Installation" Procedure 1, "Step-by-Step Installation", Step 2* during the installation process.
5. To ensure the uninstallation process has been successful, open the Microsoft System Center Operations Manager console. Under the folder "Unix/Linux Servers" check for the entry called "Patch Management". It should be removed.

6 SUSE Manager Management Pack Manual Uninstallation Process

For a manual uninstallation of the SUSE Manager Management Pack follow these steps:

1. If you are uninstalling the SUSE Manager Management Pack from a system having Microsoft System Center Operations Manager Server installed, open the application "Operations Console" and delete the SUSE Manager Management Pack (Microsoft.OpenSolutionsGroup.SuseManager.mp).
2. Remove all binaries from GAC as specified under *Section 3, "SUSE Manager Management Pack Installation", Procedure 1, "Step-by-Step Installation", Step 2* above.
3. Clear the SUSE Manager registry entries (as specified under *Section 3, "SUSE Manager Management Pack Installation", Procedure 1, "Step-by-Step Installation", Step 2*).
4. Remove the above extracted folder (as specified in *Section 4, "SUSE Manager Management Pack Manual Installation Process"*).

7 Repairing SUSE Manager Management Pack

To repair the SUSE Manager Management Pack installed on Microsoft System Center Operations Manager, follow the steps below:

1. Double-click or right-click the installer, then select the option “Repair SUSE Manager Management Pack”.

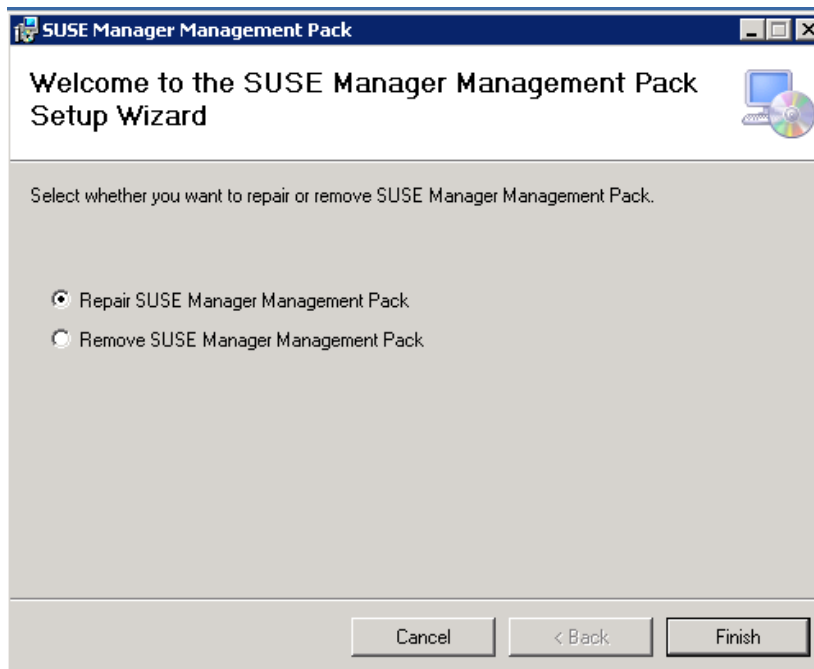


FIGURE 10: REPAIRING SUSE MANAGER MANAGEMENT PACK

2. Click the “Finish” button. The SUSE Manager Management Pack will be repaired. All files specified under *Section 3, “SUSE Manager Management Pack Installation”* will be replaced by the installer.

8 Updating SUSE Manager Details

To update the details of SUSE Manager, follow the steps below:

1. Double-click SUSEManagerMPSettings.exe, which is contained in the Management Pack installation folder (the folder selected at the time of installation) or in the shortcut placed on your desktop.

2. A window will open to enter new SUSE Manager details.

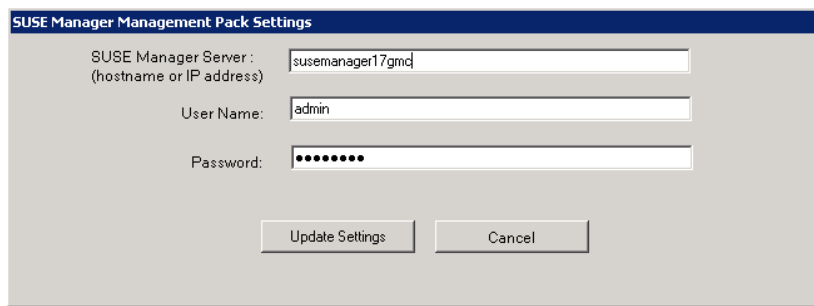


FIGURE 11: UPDATE SUSE MANAGER DETAILS

3. Enter the values and click “Update Settings”.
4. The SUSE Manager credentials are updated in the registry “HKEY_LOCAL_MACHINE \SOFTWARE\Microsoft\SUSEManagementPack”.
5. After successfully updating the SUSE Manager details, click “Close” to close the window.



Note: Write Permission

You should have write permission for the registry to update the SUSE Manager details.

9 Troubleshooting

The below list contains troubleshooting tips and hints:

- Check the error details in the log file (LogInfo.txt in the SUSE Manager Management Pack installation location) and resolve them accordingly.
- The SUSE Manager Management Pack installation may fail because following keys have not been found, or there is an invalid entry, in the Microsoft System Center Operations Manager registry location.
 - For Microsoft System Center Operations Manager 2012: Computer \HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\System Centre Operations Manager\SetUp\Console\InstallDirectory

or: Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\System Centre Operations Manager\SetUp\Server\InstallDirectory

- For Microsoft System Center Operations Manager 2007R2: Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Microsoft Operations Manager\3.0\SetUp\InstallDirectory
- Make sure to give proper credentials to the SUSE Manager server while installing the Management Pack.
- If you have any trouble while uninstalling the SUSE Manager Management Pack, follow the steps below:
 - Check if the SUSE Manager Management Pack uninstallation fails because there are binaries used by another process, or because SUSE Manager Management Pack has a dependency with another Management Pack in Microsoft System Center Operations Manager.
 - If this is the case resolve the dependency manually and repeat the uninstallation process.
 - Check whether the Operations Console is closed.
 - Check that the below registry path contains valid SUSE Manager credentials: Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\SUSEManagementPack

Important

Keep in mind the following points:

- After the installation, it takes up to four minutes to display a list of systems subscribed to Microsoft System Center Operations Manager and SUSE Manager in the Systems tab under Patch management. The SUSE Manager probe refreshes every four minutes in the background.
- To access Patch Management, you need to be added as a user to the Microsoft System Center Operations Manager administrator account group.
- As a new user performing a first time installation, you need to set the Operations Manager URL (the Microsoft System Center Operations Manager Server URL). Access the Operations Console and then proceed with the installation setup.

- If you have difficulties uninstalling the SUSE Manager Management Pack (because of deletion of the Management Pack, deletion of the binaries, or corruption of the installation file, etc.), use the repair option and try to perform the uninstallation process again.
- The SUSE Manager Management Pack installer works for Microsoft System Center Operations Manager 2007, 2012 and 2016.
- If you want to upgrade Microsoft System Center Operations Manager from version 2007 to 2012, first uninstall the SUSE Manager Management Pack and then upgrade Microsoft System Center Operations Manager. After the successful upgrade, re-install the SUSE Manager Management Pack.

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