

Citrix SCOM Management Pack for Provisioning Services

Aug 14, 2017



Citrix SCOM Management Pack 1.19 for Provisioning Services

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Citrix SCOM Management Pack for Provisioning Services is an availability and performance management solution that extends end-to-end service monitoring capabilities of Microsoft System Center Operations Manager (**SCOM**) to include the Citrix Provisioning Services infrastructure.

With the Citrix SCOM Management Pack for Provisioning Services, you can:

- Improve the Provisioning Services infrastructure availability and health
If any important part of Provisioning Services environment is not available, the user may not be able to use its resources or use them with degraded performance. Citrix SCOM Management Pack for Provisioning Services actively monitors the availability and performance of many Provisioning Services components, such as Provisioning Servers, stores, network services, and so on.
- Gain more insight into the Provisioning Services performance
Performance degradation detection before the degradation affects end users is of great importance. With the Citrix SCOM Management Pack for Provisioning Services, you have the overall view of Provisioning Server's resource consumption, store disk space availability, target device utilization, and so on.

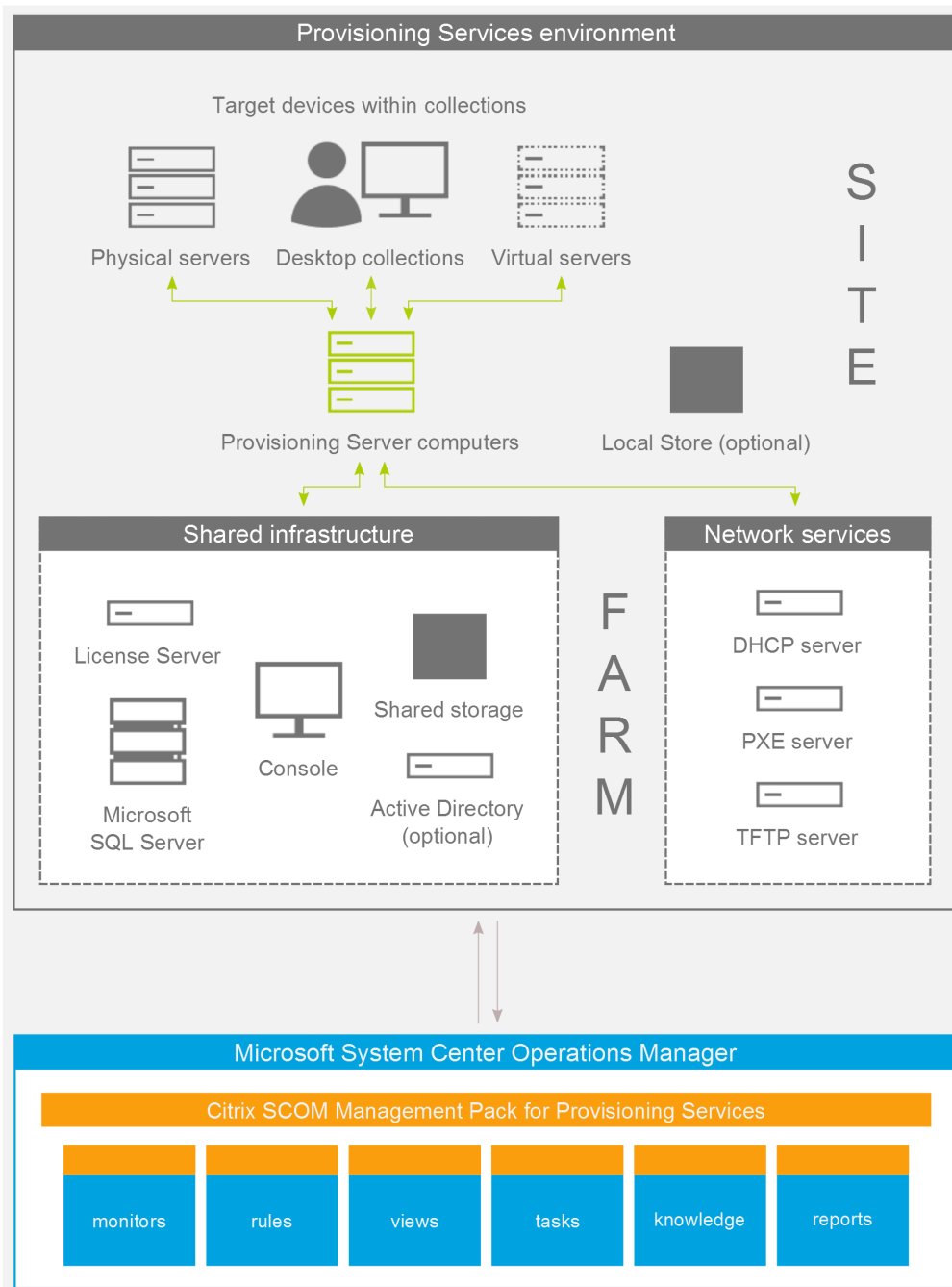
Citrix SCOM Management Pack for Provisioning Services fully integrates topology, health, and performance data into SCOM, providing an end-to-end operations overview across the entire Provisioning Services estate, and enabling delivery of effective business service management. It covers the following key scenarios:

- Are all Provisioning Services instances running?
- If disk image streaming gets slower than expected, servers having CPU or network interfaces overloaded are pinpointed.
- Are store paths and store write cache paths accessible and to which degree the stores are utilized?
- If a farm is not fully operational, non-operational sites and servers causing the problem are identified.
- How much are device collections utilized and how many target devices are connected to vDisks?
- Identify which crucial Provisioning Server services are not operational and get errors from Provisioning Server log files and Windows event logs.

Architecture

The following diagram shows how the Citrix SCOM Management Pack for Provisioning Services connects to the SCOM management platform and the Provisioning Services estate.

Figure A high-level view of the Citrix SCOM Management Pack for Provisioning Services architecture



What's new

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Citrix SCOM Management Pack 1.19 for Provisioning Services introduces the following features:

Support for Citrix Provisioning Services. Citrix SCOM Management Pack for Provisioning Services now supports Provisioning Services version 7.15.

Known Issues

The following is a list of known issues in this product version.

- **Issue ID:** SCOM-91 (6117)
- **Symptom:** In the output of the *Check Requirements and Configuration for Citrix MPPVS Agent* and *Set Farm Name on Citrix MPPVS Agent* tasks in the SCOM Operations console, the farm names, site names, and farm administrator user names that contain non-ASCII characters are not displayed correctly. For example, Spanish characters *çñ* appear as *||#* in a farm name, site name, or user name.
Action: None. Apart from the visual glitch, the functionality of the product is not affected in any way. You can therefore safely ignore the issue.

Fixed Issues

None

Upgrading

Note: Product versions earlier than 1.13 were released under the name Comtrade Management Pack for Citrix Provisioning Services.

Upgrade is available only from versions 1.12 and later. During the upgrade process, the included management packs of the earlier product version are automatically upgraded; their prior removal is not required. Your management pack customization is preserved. For upgrade instructions, see [Upgrading](#) in Install and Configure.

System requirements

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Before installing the Citrix SCOM Management Pack for Provisioning Services, make sure that your environment meets the requirements listed in this section.

The Citrix SCOM Management Pack for Provisioning Services requires a supported version of the following products that it integrates with:

- Citrix Provisioning Services
- Microsoft System Center Operations Manager

Note: Make sure that Microsoft .NET Framework 4.5.2 or later is available on the PVS Server.

Supported Citrix Provisioning Services versions

Citrix SCOM Management Pack for Provisioning Services is compatible with the following Citrix Provisioning Services versions:

Product Version	Supported
Citrix Provisioning Services 7.15	✓
Citrix Provisioning Services 7.14	✓
Citrix Provisioning Services 7.13	✓
Citrix Provisioning Services 7.12	✓
Citrix Provisioning Services 7.11	✓
Citrix Provisioning Services 7.9	✓
Citrix Provisioning Services 7.8	✓
Citrix Provisioning Services 7.7	✓
Citrix Provisioning Services 7.6	✓
Citrix Provisioning Services 7.1	✓

Product version	Supported
Citrix Provisioning Services 7.1	Supported

Supported SCOM versions

The Citrix SCOM Management Pack for Provisioning Services is compatible with the following SCOM versions:

Microsoft System Center Operations Manager version	Supported
Microsoft System Center Operations Manager 2016	✓
Microsoft System Center Operations Manager 2016 R2	✓
Microsoft System Center Operations Manager 2012 ¹ <small>1 This entry covers the following configurations: base release, base release + SP1 (Service Pack 1).</small>	✓

Language Support

The product can be deployed and operates correctly in environments where regional settings are configured to use any of the following languages:

Language	Language code	Supported
English	en	✓
Spanish	es	✓

Install and configure

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This chapter contains instructions that you must follow to install and configure the Citrix SCOM Management Pack for Provisioning Services. Perform all procedures in the documented order of precedence.

Preparing for the installation

Before installing the Citrix SCOM Management Pack for Provisioning Services, make sure the following prerequisites are fulfilled:

- Your environment meets the software requirements. For software requirements, see [System Requirements](#).
A computer is chosen on which a SCOM management server resides and where the server side of Citrix SCOM Management Pack for Provisioning Services will be installed. This computer is referred to as **SCOM management server**.
- SCOM agent is installed on all the computers that host Provisioning Server, and these computers are configured as **agent-managed computers** in the SCOM management group.
- The Action Account of SCOM agent has administrative privileges on all the computers that host Provisioning Server.

Installing the product on the SCOM management server

The server-side part of the Citrix SCOM Management Pack for Provisioning Services must be installed on the SCOM management server.

To install the Citrix SCOM Management Pack for Provisioning Services on the SCOM management server, do the following:

1. Log on to the management server. Use a user account that has local administrative privileges and SCOM administrative privileges.
2. In Windows Explorer, locate the *Citrix_SCOM_Management_Pack_for_ProvisioningServices_<Version>.exe* file (where *<Version>* is the current software version), and double-click it to invoke the installation process. Wait for the Setup Wizard to appear.
3. In the Welcome page of the Setup Wizard, click **Next**.
4. In the View Relevant Product Configuration page, click **Next**.
5. In the License Agreement page of the Setup Wizard, read the end user license agreement carefully. If you accept the terms of the agreement, click **Next**.
6. In the Destination Folder page, define the Citrix SCOM Management Pack for Provisioning Services installation folder. Citrix recommends that you install the Citrix SCOM Management Pack for Provisioning Services to the default folder. Proceed as follows:
 - To install the product to the default folder listed in the Setup Wizard, no special actions are required.
 - To install the product to a different folder, follow the sub-steps:
 - Click **Change**.
 - In the Browse For Folder dialog box, browse to a desired installation folder, select it, and click **OK**.
7. Click **Next**.

8. In the Configure Post-Install Actions page of the Setup Wizard, decide whether the Setup Wizard should automatically import the included management packs into SCOM.
9. To let the Setup Wizard import the management packs, select the **Automatically import the Management Pack** option. Citrix recommends this choice.
10. To import the management packs into SCOM manually at a later time, leave the Automatically import the Management Pack option unselected. For instructions about how to import or reimport the management packs, see [Manually importing included management packs into SCOM](#).
11. Click **Install**. The Setup Wizard displays the Installing the product page and starts copying the installation files.
12. After the installation completes, the installation completion page is displayed.
13. If you let the Setup Wizard to automatically import the management packs, click **Next**. Else, click **Finish** to close the Setup Wizard.
14. If you let the Setup Wizard to automatically import the management packs, it displays the Executing post-install actions page. Attend the import process.
15. In the post-installation completion page, review the management packs import log, and click **Finish** to close the Setup Wizard.

Configuring access to the shared folder for agent installation

Note: Steps of this procedure must be followed only once on a SCOM management server. In case you previously installed any of the following Citrix Management Pack products on the same computer, you do not need to repeat the steps:

- Citrix SCOM Management Pack for ShareFile
- Citrix SCOM Management Pack for StoreFront
- Citrix SCOM Management Pack for Web Interface
- Citrix SCOM Management Pack for XenApp and XenDesktop
- Citrix SCOM Management Pack for XenApp
- Citrix SCOM Management Pack for XenMobile

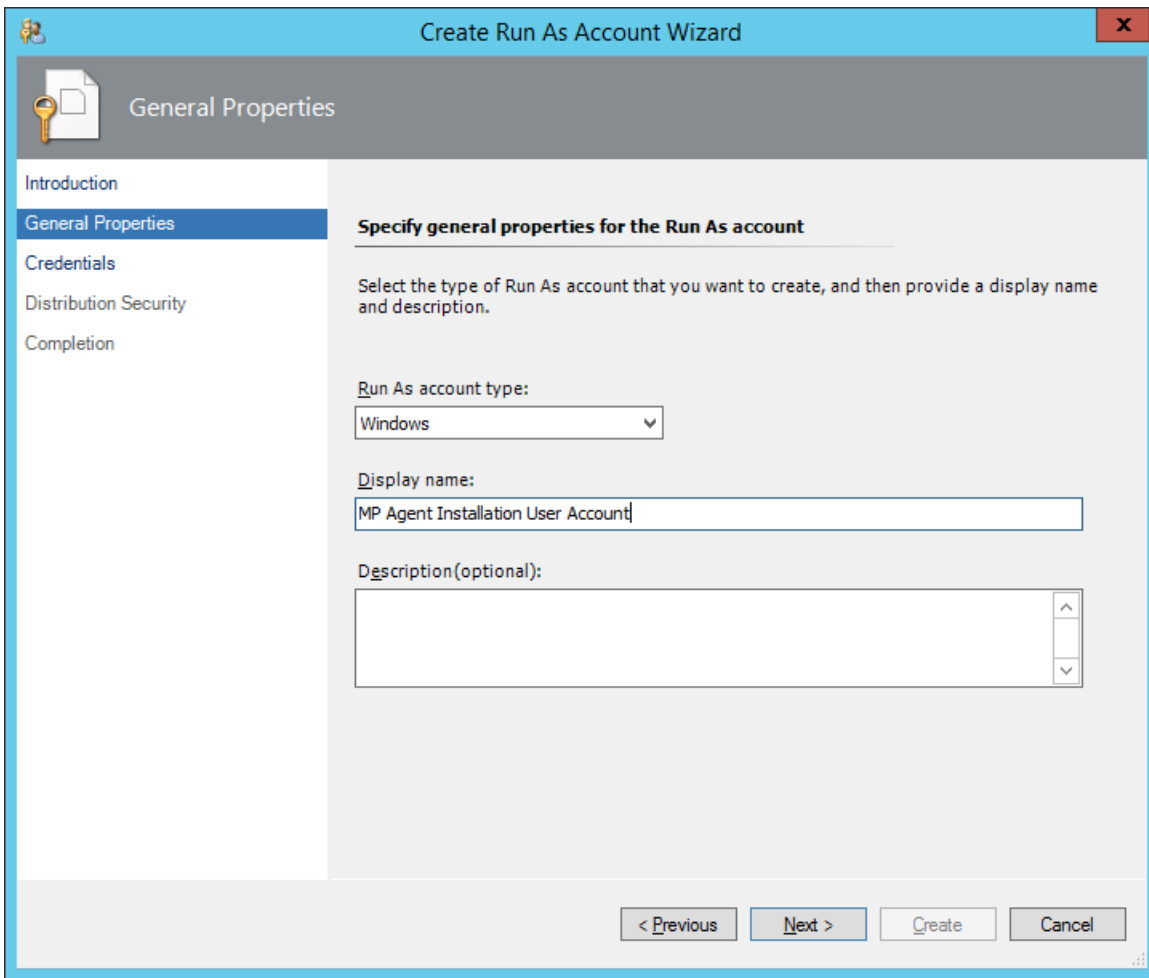
To configure access to the shared folder for agent installation, do the following:

1. Log on to the SCOM management server. Use a user account that has local administrative privileges.
2. Choose a local user account (local to the computer with the shared folder) or a domain user account that will have access to the shared folder, for the purpose of agent deployment and configuration.

Important: Citrix recommends creating a new, dedicated user account that you will use only for deployment of the Citrix SCOM Management Pack for Provisioning Services agent to managed computers.

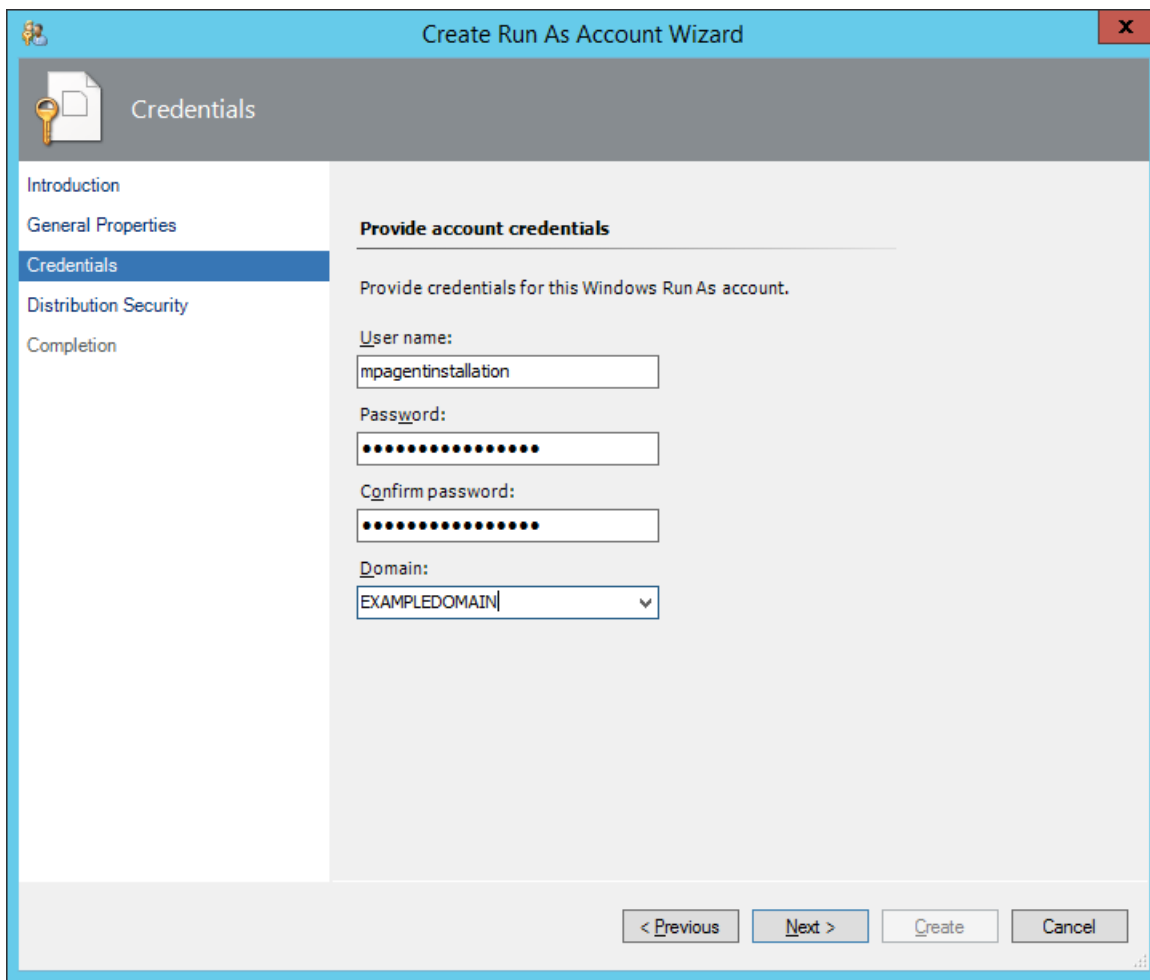
3. Using an operating system administrative tool, add the user account to the local *CitrixMPShareUsers* user group.
4. Launch the SCOM Operations console.
5. In the **Administration** view, in the left pane, expand **Run As Configuration**, and then click **Accounts**.
6. In the Tasks pane, expand **Actions**, and then click **Create Run As Account**.
7. In the Create Run As Account Wizard window, click **Next**.
8. In the **Run As account type** drop-down menu, leave the default selection (*Windows*).

Figure The General Properties page



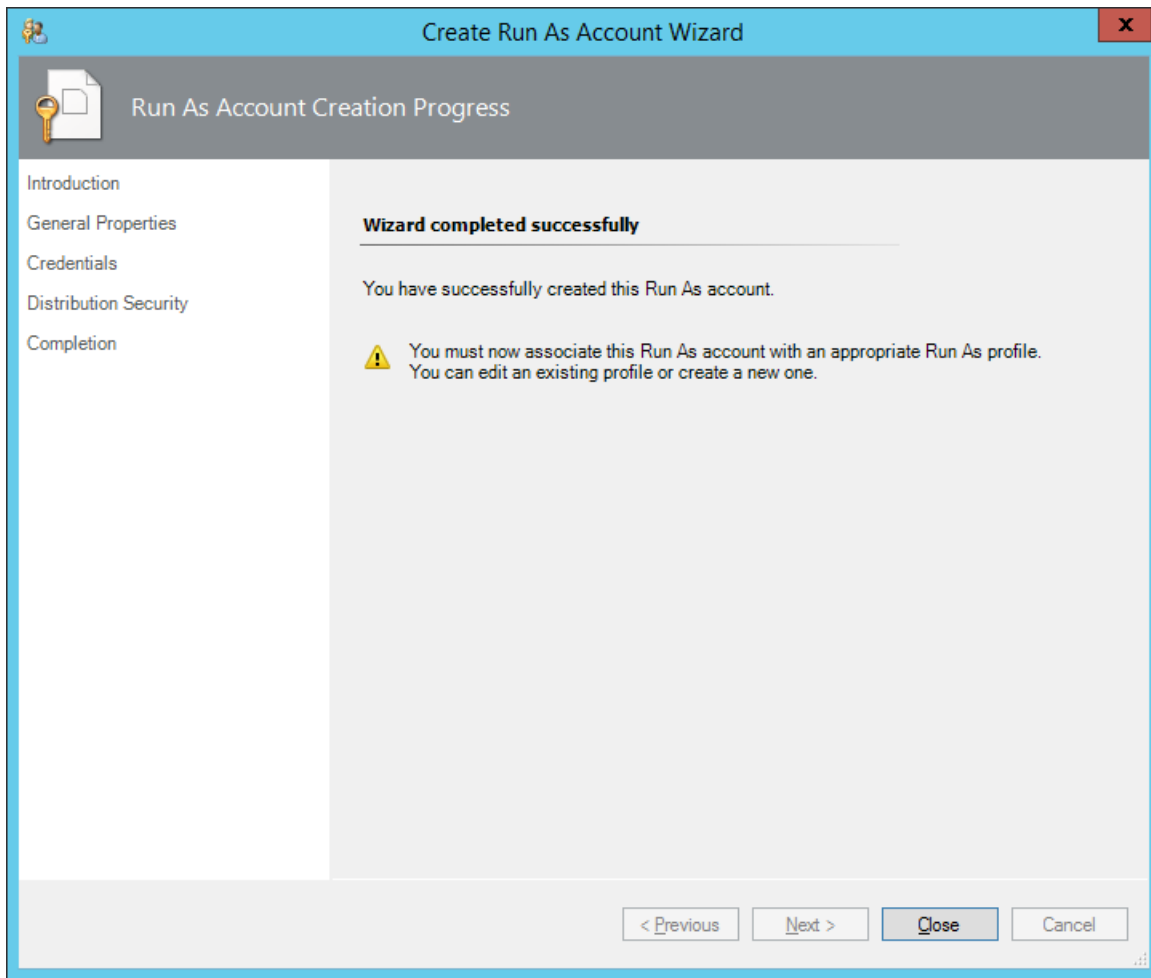
9. In the **Display name** text box, type a name that the SCOM Operations console will use to refer to the newly created SCOM user account. Click **Next**.
10. In the **User name** text box, type the user name of the operating system user account that you chose in step 2.

Figure The Credentials page



11. In the **Password** and **Confirm password** text boxes, type the valid password of the operating system user account.
12. In the **Domain** text box, update the value if needed. Click **Next**.
13. Depending on the effective security policy in your SCOM environment, select either the **Less secure** or **More secure** option.
Note: Selecting **More secure** requires manual steps to be performed in SCOM for each newly added managed computer.
14. Click **Create**.
15. After the message about successful account creation appears, click **Close**.

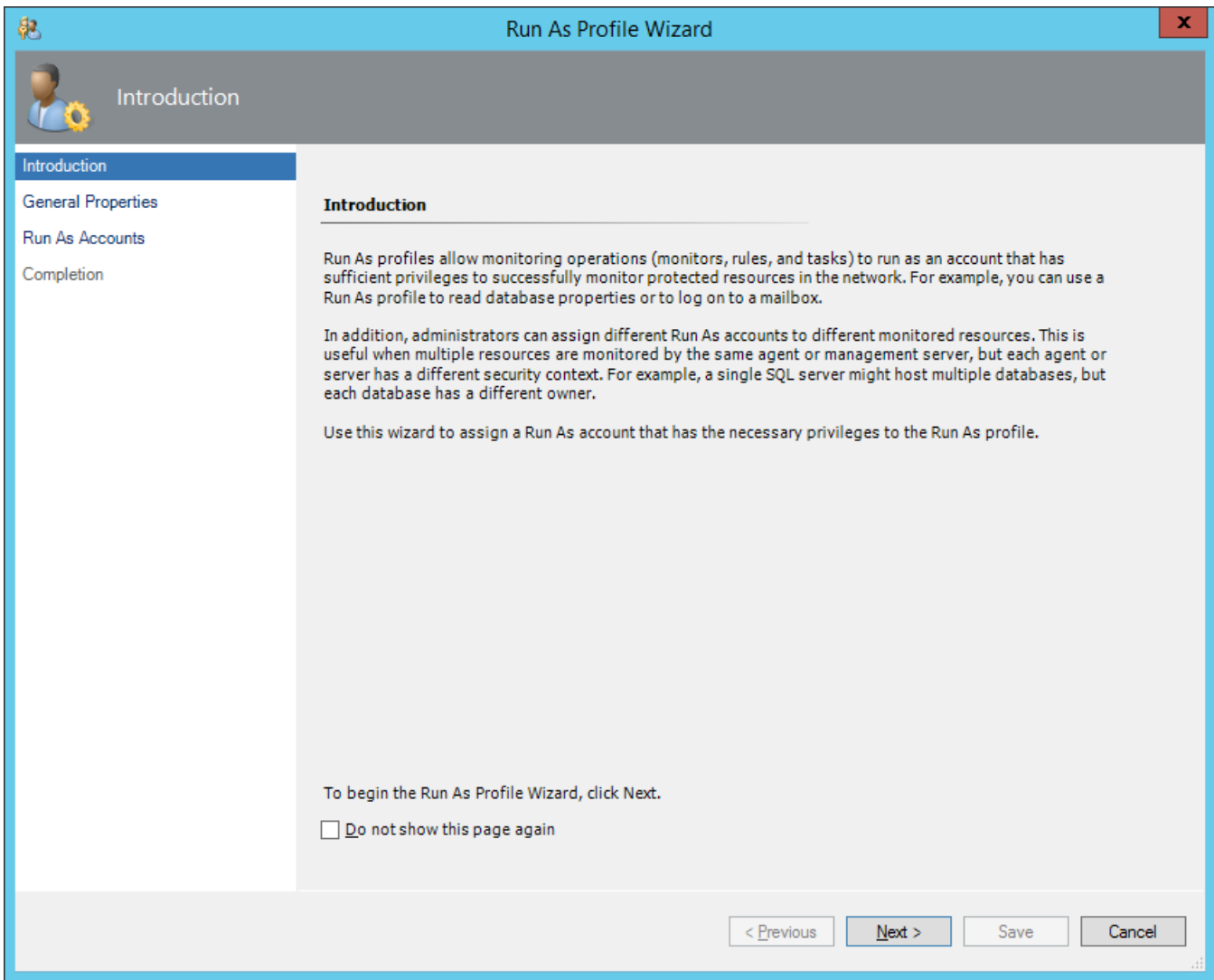
Figure The Completion page



16. In the left pane, under Run As Configuration, click **Profiles**.

17. In the Profiles list, double-click **Citrix Management Pack Network Share Account**.

Figure The Introduction page

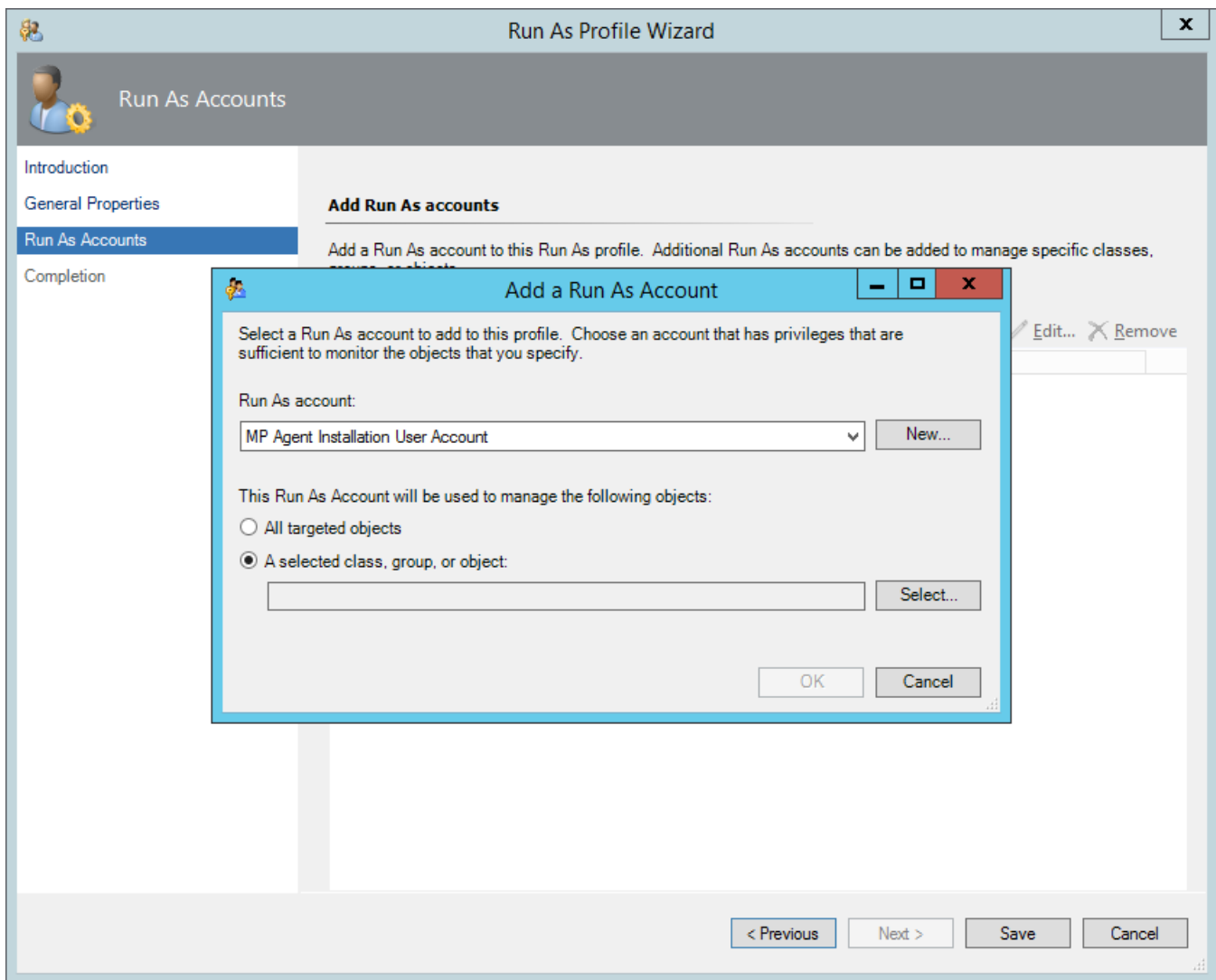


18. In the Run As Profile Wizard window, in the Introductory page, click **Next**. In the General Properties page, click **Next**.

19. In the Run As Accounts page, click **Add**.

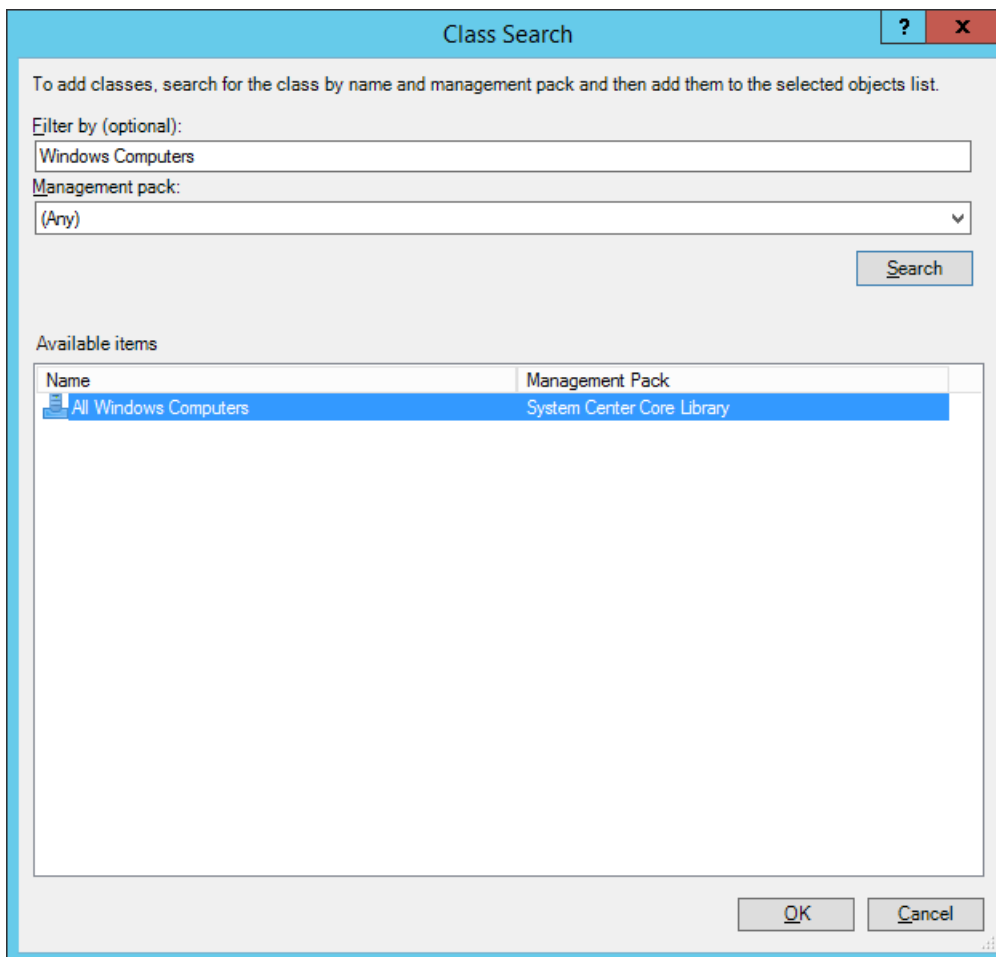
20. In the Add a Run As Account dialog box, in the Run as account list, select the newly created SCOM user account.

Figure The Add a Run As Account dialog box



21. Select the **A selected class, group, or object** option.
22. Click **Select** and then select **Class**.
23. In the Class Search dialog box, in the **Filter by (optional)** text box, type *Windows Computers*.
24. Click **Search**.
25. In the Available items list, select **All Windows Computers**.

Figure The Class Search dialog box



26. Click **OK** to close the Class Search dialog box.
27. Click **OK** to close the Add a Run As Account dialog box.
28. Click **Save** to update the profile. This may take a while.
29. Click **Close** to close the Run As Profile Wizard window.

Verifying the installation on the SCOM management server

To verify that the Citrix SCOM Management Pack for Provisioning Services installation on the management server is correct, do the following:

1. Log on to the management server.
2. Go to **Start > Control Panel** and click **Programs and Features** (actions of this step may differ on operating systems earlier than Windows Server 2016).
3. Check for the presence of the following entry in the Name column:
Citrix SCOM Management Pack for Provisioning Services
4. To check if the *CitrixMPShare* shared folder is correctly configured, open a Command Prompt window and run the following commands in sequence (their outputs in case of success are also shown):

Command:

```
net share / findstr -i CitrixMPShare
```

Command output:

```
CitrixMPShare  
    %ProgramData%\Citrix\CitrixMPShare
```

Command:

```
net use ||<ManagementServerHostName>\CitrixMPShare  
    /USER:<DomainName>\<UserName>
```

Command output:

```
The command completed successfully
```

Command:

```
dir ||<ManagementServerHostName>\CitrixMPShare
```

Command output:

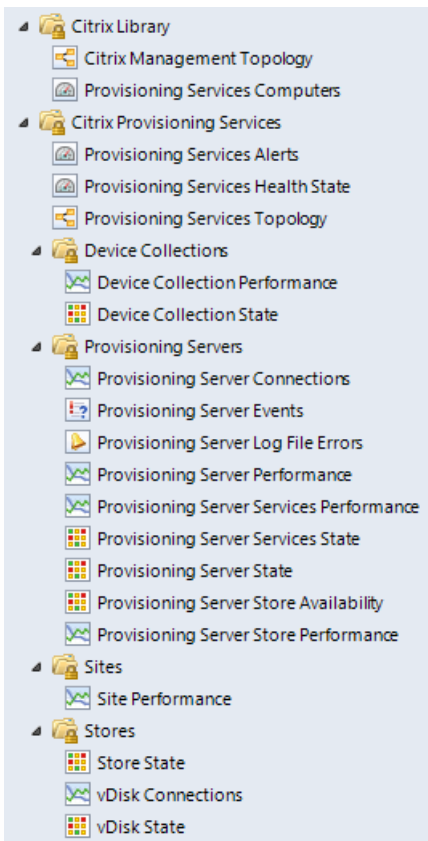
```
<FolderContents>
```

In these instances, *%ProgramData%* refers to the actual value of this operating system variable. *<ManagementServerHostName>* is the name of the SCOM management server. *<DomainName>* is the domain or computer name and *<UserName>* is the name of the user account that you chose in step 2 of the procedure documented in "Configuring access to the shared folder for agent installation." *<FolderContents>* is the list of the contents of the *CitrixMPShare* folder.

Note: The shared folder is vital for installation of the Citrix SCOM Management Pack for Provisioning Services agent and deployment of its configuration to the managed computers.

5. Launch the SCOM Operations console.
6. In the **Monitoring** view, expand the items in the left pane until they match the following figure.

Figure Elements of Citrix SCOM Management Pack for Provisioning Services, as seen in the SCOM Operations console



7. In the **Administration** view, expand **Administration > Management Packs** and click **Installed Management Packs** (the navigation pane structure may differ in SCOM versions earlier than 2016).

8. Verify the following management pack versions are listed in the results pane:

Citrix Management Pack for Provisioning Services	1.19.91.0
Citrix Management Pack for Provisioning Services Reports	1.19.91.0
Citrix Management Pack Library	1.0.38.0

Configuring encryption password

Encryption password is required to generate a key that is used to encrypt the configuration data. Set the encryption password on the first run of the **Provisioning Services MP Configuration** tool.

To set the encryption password:

1. Log on to the management server. Use a user account that has local administrative privileges.
2. Go to **Start > All apps > Citrix** (actions of this step may differ on operating systems earlier than Windows Server 2016).
3. Select **Provisioning Services MP Configuration**.
4. Go to the **Configuration encryption** tab.
5. Click **Set**.

6. In the dialog for inserting the password, type the password and click **Set**.

Note: Setting the encryption password is a prerequisite to saving the configuration data. If the encryption password is not set, the configuration tool automatically starts on the Configuration encryption tab.



The encryption password must be shared with the Citrix SCOM Management Pack for Provisioning Services Agent to be used to decrypt the configuration data. To share the encryption password, while running the **Install Citrix MPPVS Agent** task, override the **Encryption password** parameter with the password you set in Step 3. See the [Installing the product on the Provisioning Services computers](#) section.

To update the encryption password:

1. In the Provisioning Services MP Configuration tool, go to the **Configuration encryption** tab.
2. Click **Update**.
3. In the dialog for inserting the password, type the password and click **Update**.

If you update or set the encryption password after the agent is installed, run the **Update Configuration on Citrix MPPVS Agent** task. Override the **Encryption password** parameter in these tasks with the updated password.

Configuring SCOM agent to act as proxy on Provisioning Server computers

SCOM agent on each computer where Provisioning Server is installed must be configured to act as a proxy agent. This configuration enables the agent to relay or forward information from or about other computers and network devices to

the SCOM management server.

You can either configure SCOM agent instances one by one or you can configure all applicable SCOM agent instances at the same time. The latter scenario is particularly useful in large Provisioning Services environments.

To configure the SCOM agent instances one by one, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Administration** view, in the left pane, expand **Device Management**, and then click **Agent Managed**.
3. For each Provisioning Services (Provisioning Server) computer, follow the steps:
 - a. Right-click the host name, and select **Properties**.
 - b. Click the **Security** tab.
 - c. Select the **Allow this agent to act as proxy and discover managed objects on other computers** option.
 - d. Click **OK**.

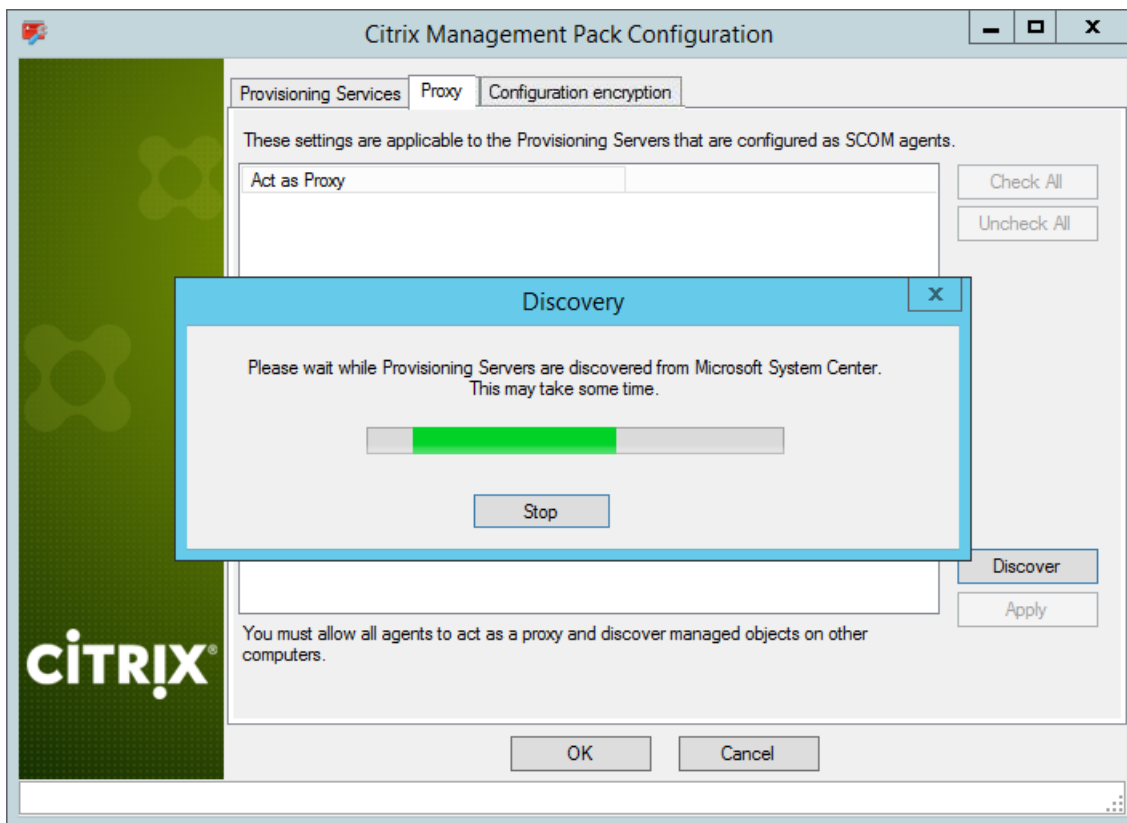
To configure all applicable SCOM agent instances (instances on all discovered Provisioning Server computers) at the same time, do the following:

1. Log on to the SCOM management server. Use a user account that has local administrative privileges.
2. Go to **Start > All apps > Citrix** (actions of this step may differ on operating systems earlier than Windows Server 2016).
3. Click **Provisioning Services MP Configuration**.
4. In the Citrix Management Pack Configuration window, click the **Proxy** tab.
5. Click **Discover** to invoke the discovery process. It will discover all computers that are listed in the Provisioning Services Computers list in the Monitoring view of the SCOM Operations console.

Note: Newly added agent-managed computers may not be immediately visible in the Provisioning Services Computers list in the SCOM Operations console. Allow some time for the list to get updated.

This discovery process may take a while.

Figure The Proxy tab of the Citrix Management Pack Configuration tool



6. Select the Provisioning Services computers or click **Check All** to select all of them. Click **Uncheck All** to clear the selection.
7. Click **Apply** to update the configuration in SCOM. This may take a while.
8. *Optional.* To cease a SCOM agent instance to act as a proxy agent, clear its entry in the Act as Proxy list, and click **Apply** to update the configuration in SCOM.
9. Click **OK** to close the window.

Providing information about Provisioning Services farm administrator account

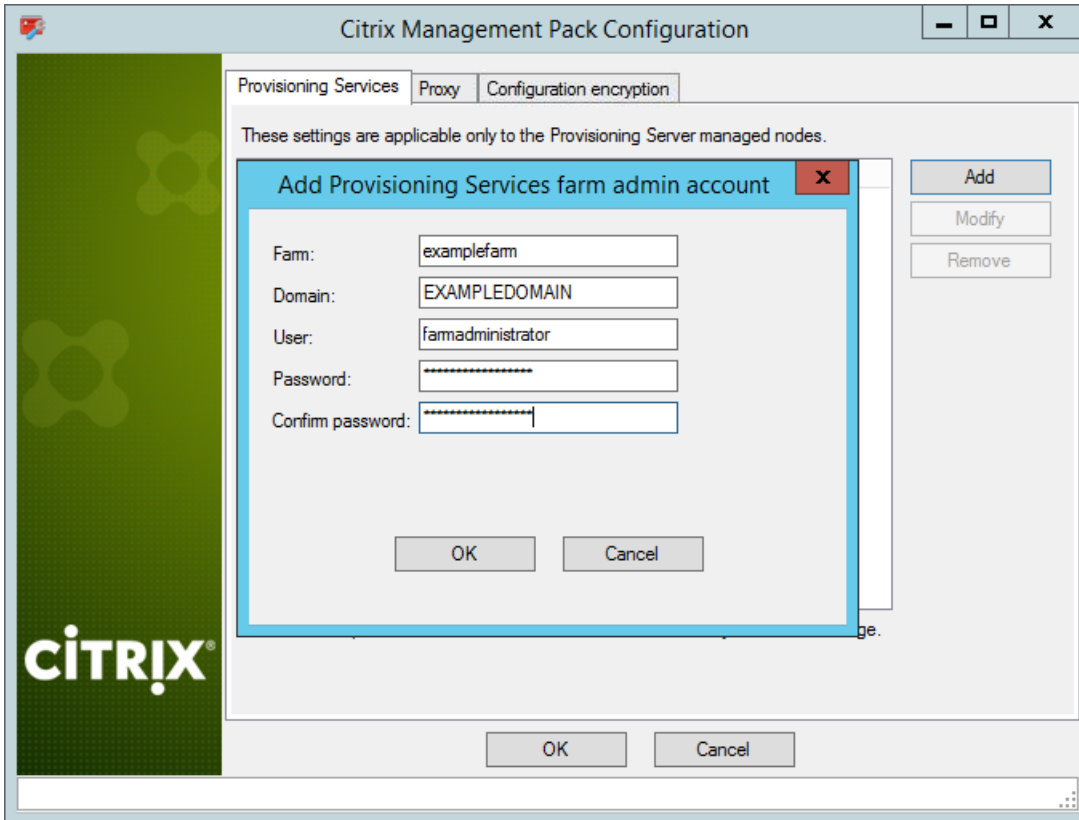
A farm administrator account must be provided to Citrix SCOM Management Pack for Provisioning Services for each Provisioning Services farm that you want to manage. This user account must be the local administrator of each Provisioning Services server and must have full access granted to the farm.

To provide the farm administrator accounts, do the following:

1. Log on to the management server. Use a user account that has local administrative privileges.
2. Go to **Start > All apps > Citrix** (actions of this step may differ on operating systems earlier than Windows Server 2016).
3. Click **Provisioning Services MP Configuration**.
4. In the Citrix Management Pack Configuration window, in the Provisioning Services tab, click **Add**.
5. In the Add Provisioning Services farm admin account dialog box, type the following data in the respective text boxes:
 - Farm name

- Properties of the farm administrator account:
 - Domain name
 - User name
 - Password

Figure The Add Provisioning Services farm admin account dialog box



6. Click **OK**.
7. Repeat steps 4 and 5 for each additional farm administrator account you want to set.
8. *Optional.* To modify the domain name, user name, or password of a farm administrator configuration, click **Modify**. In the Modify Provisioning Services farm admin account dialog box, modify the data as required, and then click **OK**.
9. *Optional.* To remove a farm administrator configuration, click **Remove** and then click **Yes**.
10. Click **OK** to apply the configuration changes and close the window.

Note: If you modify data for a Provisioning Services account where the Citrix SCOM Management Pack for Provisioning Service Agent is already installed on the Provisioning Services computers, run the *Update Configuration on Citrix MPPVS Agent* task from the SCOM Operations console to refresh the local configuration data

Installing the product on the Provisioning Services computers

On the Provisioning Services computers, only the Citrix SCOM Management Pack for Provisioning Services Agent must be

installed.

To install the Citrix SCOM Management Pack for Provisioning Services Agent on a Provisioning Services computer, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Monitoring** view, in the left pane, expand **Citrix Library**, and then click **Provisioning Services Computers**.
3. In the Provisioning Services Computers pane, select a Provisioning Services computer from the Provisioning Services Computers list.
4. In the Tasks pane, expand **Citrix MPPVS Agent Computer Role Tasks**, and then click **Install Citrix MPPVS Agent**.
5. In the Run Task - Install Citrix MPPVS Agent dialog box, adjust the task parameters as follows:
 - **UpgradeAgent**: This option, when set to *true*, causes uninstallation of the existing Citrix SCOM Management Pack for Provisioning Services Agent from the agent-managed computer before the current version is installed. Before such uninstallation, the SCOM agent must be put into maintenance mode.
Default value: *false*
 - **IgnorePrereqCheck**: You may not alter this option.
Default value: *false*
 - **Encryption password**: Override this parameter with the encryption password you set in Step 3 of the [Configuring encryption password](#) section.
Default value: (empty)
 - **Debug**: You may not alter this option.
Default value: *false*
 - **AgentInstallationSource**: This option defines location of the Management Pack agent installation package and its configuration files. Specify the value according to relationship between the agent-managed computer and the SCOM management server:
 - If SCOM agent on the agent-managed computer reports only to the management server where the Citrix SCOM Management Pack for XenApp and XenDesktop Management Pack is installed, leave the value empty. The location is automatically determined based on data retrieved from the agent-managed computer. In most cases, the retrieved location host name matches the host name of the management server where the installation task is invoked.
 - If the agent-managed computer is managed by some other management server or the computer hosts a multi-homed SCOM agent instance, specify the host name of the management server where the Citrix SCOM Management Pack for XenApp and XenDesktop Management Pack is installed.
 - If the agent-managed computer does not have access to the *CitrixMPShare* shared folder on the management server, specify the alternative location of the Management Pack agent installation package and its agent configuration files in the UNC format. A prerequisite is that these files are copied from the *CitrixMPShare* shared folder to a location the agent-managed computer has access to.
Default value: (empty)
 - **AgentInstallationDestination**: This option defines the Management Pack agent's program installation folder on the agent-managed computer. If no value is specified, the Management Pack agent is installed to the *%ProgramFiles%\Citrix\Provisioning Services MP Agent* folder.
Default value: (empty)
6. Click **Run** to invoke the installation process.
7. Observe the output the task generates. If the task reports no errors, the installation on the Provisioning Services computer is correct.

Tip: The task initially performs a prerequisite check. If any of the installation prerequisites are not fulfilled, the process is

interrupted before the actual installation begins. In this case, invoke the **Check Installation Prerequisites for Citrix MPPVS Agent** task to pinpoint the problematic prerequisite.

Tip: The Agent installation task can be run for multiple selected Provisioning Services computers.

Verifying the installation and configuration on the Provisioning Services computers

To verify that the Citrix SCOM Management Pack for Provisioning Services Agent installation and configuration on a Provisioning Services computer are correct, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Monitoring** view, in the left pane, expand **Citrix Library**, and then click **Provisioning Services Computers**.
3. In the Provisioning Services Computers pane, select the Provisioning Services computer (on which the Citrix SCOM Management Pack for Provisioning Service Agent was just installed) from the Provisioning Services Computers list.
4. In the Tasks pane, expand **Actions**, and then click **Check Requirements and Configuration for Citrix MPPVS Agent**.
5. Observe the output the task generates. If all checks are denoted successful, the installation and configuration on the Provisioning Services computer are correct.

Uninstall

This chapter contains instructions that you must follow to effectively uninstall the Citrix SCOM Management Pack for Provisioning Service. Perform all procedures in the documented order of precedence.

Uninstalling the product from the Provisioning Services computers

To uninstall the Citrix SCOM Management Pack for Provisioning Service Agent from a Provisioning Services computer, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Monitoring** view, expand **Citrix Library**, and then click **Provisioning Services Computers**.
3. In the Provisioning Services Computers pane, select a Provisioning Services computer from the Provisioning Services Computers list.
4. In the Tasks pane, expand **Actions**, and then click **Uninstall Citrix MPPVS Agent**.
5. In the Run Task - Uninstall Citrix MPPVS Agent dialog box, click **Run** to invoke the uninstallation process.
6. Repeat steps 3 to 5 for each additional Provisioning Services computer.

Tip: The Agent uninstallation task can be run for multiple selected Provisioning Services computers.

Removing dependent management packs (customizations)

Important: Perform this procedure only if you have customized the management packs included in the product.

To remove the customizations that you made to the management packs included in the Citrix SCOM Management Pack for Provisioning Service, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Administration** view, expand **Administration > Management Packs** and click **Installed Management Packs** (the navigation pane structure may differ in SCOM versions earlier than 2016).
3. In the results pane, locate the management packs that depend on the management packs included in Citrix SCOM Management Pack for Provisioning Service.
4. For each such dependent management pack (except for *Microsoft.SystemCenter.SecureReferenceOverride*), follow the steps:
 - a. Right-click it and then click **Delete**.
 - b. On the message stating that deleting the management pack might affect the scoping of some user roles, click **Yes**.

Removing included management packs

To remove the management packs included in the Citrix SCOM Management Pack for Provisioning Service, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Administration** view, expand **Administration > Management Packs** and click **Installed Management Packs** (the navigation pane structure may differ in SCOM versions earlier than 2016).
3. Remove references to the included management packs from the *Microsoft.SystemCenter.SecureReferenceOverride* management pack. To do this perform the following steps:
 - a. Identify which included management packs are referenced. In the **Administration > Management Packs** context of the SCOM Operations console, right-click **Microsoft.SystemCenter.SecureReferenceOverride** and select **Properties**. In the dialog box, click the **Dependencies** tab.
 - b. For each such referenced management pack, find out its ID. Right-click the referenced management pack. In the dialog box, take note of the value in the ID text box on the General tab.
 - c. Export the *Microsoft.SystemCenter.SecureReferenceOverride* management pack.
 - d. Make a copy of the file you exported the management pack to.
 - e. Edit the originally exported file: use the IDs to find and remove all dependencies to the management packs from the *Manifest > References* context (the *Reference* elements) and the *Monitoring > Overrides* context (the *SecureReferenceOverride* elements), and then save the changes.

Tip: For better tracking, increase the management pack version by adjusting the value of the *Version* element within the *Identity* element.

 - f. Import back the altered *Microsoft.SystemCenter.SecureReferenceOverride* management pack from the modified file.

4. In the results pane, right-click **Citrix Management Pack for Provisioning Services Reports**, and then select **Delete**.
5. On the message stating that deleting the management pack might affect the scoping of some user roles, click **Yes**.
6. Repeat steps 4 and 5 with **Citrix Management Pack for Provisioning Services**.
7. Check if other Citrix SCOM Management Pack products are installed on the management server. If none of them is installed, repeat steps 4 and 5 with **Citrix Management Pack Library**.

Uninstalling the product from the SCOM management server

To uninstall the Citrix SCOM Management Pack for Provisioning Service from the SCOM management server, do the following:

1. Log on to the management server. Use a user account that has local administrative privileges and SCOM administrative privileges.
2. Make sure no product folders or files are in use by any user.
3. Go to **Start > Control Panel** and click **Programs and Features** (actions of this step may differ on operating systems earlier than Windows Server 2016).
4. Right-click **Citrix SCOM Management Pack for Provisioning Services** and select **Uninstall**. Wait for the Setup Wizard to appear.
5. In the Welcome page of the Setup Wizard, click **Uninstall**.
6. In the Uninstalling the product page, the Setup Wizard reports the uninstallation progress.
7. In the Completion page of the Setup Wizard, click **Finish**.
8. Delete the `%ProgramData%\Citrix\CitrixMPShare\Provisioning Services MP` folder.
Caution This action permanently deletes the Agent configuration data. You will be unable to reuse it at a later time.
9. Check if other Citrix SCOM Management Pack products are installed on the management server. If none of them is installed, follow the steps:
 - a. Stop sharing the `CitrixMPShare` shared folder.
 - b. Delete the `%ProgramData%\Citrix\CitrixMPShare` folder.
 - c. Using an operating system administrative tool, delete the local `CitrixMPShareUsers` user group.

Upgrading

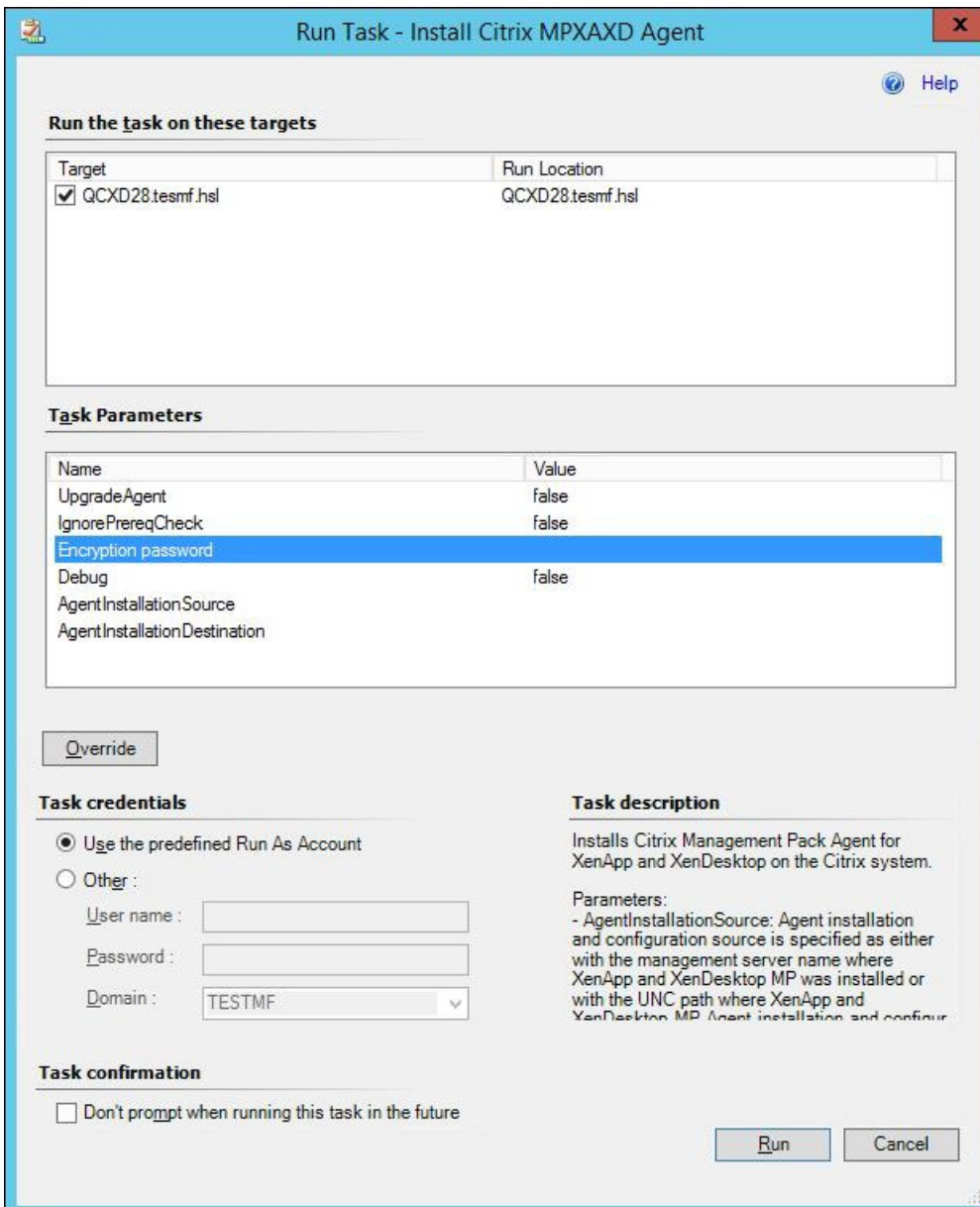
Upgrading from version 1.12

To upgrade the Citrix SCOM Management Pack for Provisioning Service from version 1.12, do the following:

1. Prepare your environment for installation of the new product version. For information, see [Preparing for the installation](#).
2. Uninstall the product from the SCOM management server computer. For instructions, see [Uninstalling the product from the SCOM management server](#).
Note: Uninstallation process preserves local configuration data.
3. Install the product (its server-side part) on the SCOM management server. For instructions, see [Installing the product on the SCOM management server](#).

4. Verify the installation of the product (its server-side part) on the SCOM management server. For instructions, see [Verifying the installation on the SCOM management server](#).
5. On the SCOM management server, move the *mppvs_config.dat* file from the *%ProgramData%\ComTrade\MPSHare\ProvisioningServices MP* directory to the *%ProgramData%\Citrix\CitrixMPShare\ProvisioningServices MP* directory.
6. Configure access to the shared folder for agent installation. For instructions, see [Configuring access to the shared folder for agent installation](#).
7. Install the product (its agent-side part) on the Provisioning Services computers. For instructions, see [Installing the product on the Provisioning Services computers](#).

Important: In the Run Task - Install Citrix MPPVS Agent dialog box, set the **UpgradeAgent** task parameter to *true*.



6. Verify the installation and configuration of the product (its agent-side part) on the Provisioning Services computers. For instructions, see [Verifying the installation and configuration on the Provisioning Services computers](#).

Upgrading from versions other than 1.12

To upgrade the Citrix SCOM Management Pack for Provisioning Service from versions other than 1.12, do the following:

1. Prepare your environment for installation of the new product version. For information, see [Preparing for the installation](#).
2. Uninstall the product from the SCOM management server computer. For instructions, see [Uninstalling the product from the SCOM management server](#).
3. Install the product (its server-side part) on the SCOM management server. For instructions, see [Installing the product on the SCOM management server](#).
4. Verify the installation of the product (its server-side part) on the SCOM management server. For instructions, see [Verifying the installation on the SCOM management server](#).
5. Install the product (its agent-side part) on the Provisioning Services computers. For instructions, see [Installing the product on the Provisioning Services computers](#).

Important: In the Run Task - Install Citrix MPPVS Agent dialog box, set the **UpgradeAgent** task parameter to *true*.

Run Task - Install Citrix MPXAXD Agent

Run the task on these targets

Target	Run Location
<input checked="" type="checkbox"/> QCXD28.tesmf.hsl	QCXD28.tesmf.hsl

Task Parameters

Name	Value
UpgradeAgent	false
IgnorePrereqCheck	false
Encryption password	
Debug	false
AgentInstallationSource	
AgentInstallationDestination	

Task credentials

Use the predefined Run As Account

Other :

User name :

Password :

Domain :

Task description

Installs Citrix Management Pack Agent for XenApp and XenDesktop on the Citrix system.

Parameters:

- AgentInstallationSource: Agent installation and configuration source is specified as either with the management server name where XenApp and XenDesktop MP was installed or with the UNC path where XenApp and XenDesktop MP Agent installation and configur

Task confirmation

Don't prompt when running this task in the future

6. Verify the installation and configuration of the product (its agent-side part) on the Provisioning Services computers. For instructions, see [Verifying the installation and configuration on the Provisioning Services computers](#).

Optimize

Aug 14, 2017

For a general overview of Citrix Provisioning Services, see [Provisioning Services Product Overview](#) in the Citrix Provisioning Services documentation.

Citrix SCOM Management Pack for Provisioning Services is able to actively monitor the availability of Provisioning Servers and their dependent components. For this purpose, a Provisioning Services farm administrator account is required by the Citrix SCOM Management Pack for Provisioning Services to be able to log on to the farm.

With the Citrix SCOM Management Pack for Provisioning Services, you can monitor:

- Provisioning Server availability
- All Provisioning Server operating system services
- Local and shared stores accessibility
- Free disk space and write cache size on the stores
- Provisioning Server log files and entries in the operating system event log
- Provisioning Server resource consumption
- Target device activity on vDisks and device collections
- vDisk availability

Citrix SCOM Management Pack for Provisioning Services also collects data, gathered from Provisioning Services environment, such as:

- CPU and memory consumption on Provisioning Server host computers
- Network traffic on Provisioning Servers
- Number of all and active devices, and device utilization on device collections
- Number of all and active devices, and device utilization on site
- Number of connected target devices on Provisioning Servers
- Number of connected target devices on vDisks
- Store free space and free space utilization (from each Provisioning Server perspective)
- Store write cache size (from each Provisioning Server perspective)

All collected data is available in Performance views for short periods of time (depends on the effective settings for SCOM database grooming), and also through reports for extended periods of time.

Note: The health states of the monitored services are not propagated up to the Provisioning Services site level; they are only propagated to one level below it, namely to the *Servers* object.

For a complete list of monitors and rules available in Citrix SCOM Management Pack for Provisioning Services, see the [Reference Guide](#).

Manually importing included management packs into SCOM

For general instructions about how to import management packs into SCOM, see the [How to Import an Operations](#)

[Manager Management Pack](#) webpage on the Microsoft TechNet website.

To import the sealed management packs for Provisioning Services manually, do the following:

1. Log on to the management server.
2. Launch the SCOM Operations console.
3. In the Administration view, click **Management Packs**.
4. In the Tasks pane, expand **Actions**, and then click **Import Management Packs**.
5. In the Import Management Packs dialog box, click **Add**, and then select **Add from disk**.
6. In the Online Catalog Connection, click **No**.
7. In the Select Management Packs to import dialog box, browse to the folder that contains the following management pack files, select those files, and then click **Open**.
 - *Comtrade.Citrix.Library.mp*
 - *Comtrade.Citrix.ProvisioningServices.mp*
 - *Comtrade.Citrix.ProvisioningServices.Reports.mp*
8. Click **Install**.

Customizing sealed management packs

Customization of the sealed management packs that the Citrix SCOM Management Pack for Provisioning Services provides is similar to the default SCOM management pack customization. For details, see the Microsoft TechNet website:

- For general information about customization of management packs, see the [Customizing Management Packs](#) webpage.
- For instructions on how to customize a management pack, see the [Create a New Management Pack for Customizations](#) webpage.

Performance overview

Aug 14, 2017

Citrix SCOM Management Pack for Provisioning Services consists of two mandatory parts:

- The part installed on the SCOM management server
- Citrix SCOM Management Pack Agent for Provisioning Services(mandatory)

The SCOM management server-side part

This management pack (the server-side) includes discoveries, monitors, rules, tasks, and reports. This part does not add significantly to the basic resource requirements (CPU and memory) of the SCOM management server. It is also not resource-intensive in terms of storage requirements on the SCOM reporting data warehouse database. Hence, the SCOM management server does not require special configuration to monitor larger Citrix Provisioning Services environments.

Citrix SCOM Management Pack Agent for Provisioning Services

Performance and resource consumption of Citrix SCOM Management Pack Agent for Provisioning Services primarily depends on the size of your Provisioning Services environment (specifically on the number of target devices, device collections, and virtual disks) and the load on the Provisioning Server instances. The number of Provisioning Services Farms in your environment does not influence the performance and resource consumption.

Reconfigure the hardware of the hosting Provisioning Server to scale-up Citrix SCOM Management Pack Agent for Provisioning Services. The agent cannot be scaled out.

Configuration specifications

All the performance numbers in this document are valid for environments that:

- are monitored with the specified product version of Citrix SCOM Management Pack for Provisioning Services
- match the documented configuration specifications for Provisioning Services and SCOM
- use the default configuration of management packs in terms of which rules and monitors are enabled (this applies to management packs included in Citrix SCOM Management Pack for Provisioning Services and management packs bundled with SCOM)
- use the default configuration of SCOM management server and SCOM agents

Note: Factors such as different hardware specifications and conditions of your environment might cause divergence of your observed values and the ones documented here.

Validated Citrix SCOM Management Pack for Provisioning Services version

The product version of Citrix SCOM Management Pack for Provisioning Services listed in the following table was validated:

Product	Version
Citrix SCOM Management Pack for Provisioning Services	1.18

Citrix Provisioning Services configuration specification

With this configuration, we used three Provisioning Servers. Provisioning Server Database was deployed outside the Provisioning Server.

With this configuration, we used three Provisioning Servers. Provisioning Server Database was deployed outside the Provisioning Server.

Computer: Provisioning Server	
Specification item	Value
Compute	Four virtual CPUs; CPU clock speed of 2.67 GHz
Memory	16 GB of RAM
Software version	Citrix Provisioning Services 7.13

Computer: Provisioning Server Database	
Specification item	Value
Compute	Four virtual CPUs; CPU clock speed of 2.67 GHz
Memory	8 GB of RAM
Software version	Microsoft SQL Server 2014 R2

Microsoft System Center Operations Manager configuration specification

With this configuration, the SCOM database and data warehouse servers are deployed outside the SCOM management server on a different machine.

Computer: SCOM management server	
Specification item	Value
Compute	Four virtual CPUs; CPU clock speed of 2.67 GHz
Memory	16 GB of RAM

Software version	Microsoft System Center Operations Manager 2012 R2
------------------	--

Computer: SCOM database and operation management server	
Specification item	Value
Compute	Four virtual CPUs; CPU clock speed of 2.67 GHz
Memory	24 GB of RAM
Software version	Microsoft SQL Server 2014

Computer: SCOM reporting database	
Specification item	Value
Compute	Four virtual CPUs; CPU clock speed of 2.67 GHz
Memory	8 GB of RAM
Software version	Microsoft SQL Server 2014 R2

Computer: SCOM database and data warehouse server	
Specification item	Value
Compute	Eight virtual CPUs; CPU clock speed of 2.67 GHz
Memory	24 GB of RAM
Software version	Microsoft SQL Server 2014

Monitoring ability

The following table lists the lab setup in which Citrix SCOM Management Pack Agent for Provisioning Services was successfully validated. The table indicates the number of objects monitored per Farm.

Item	Value
Number of Sites	3
Number of Provisioning Servers	3
Number of Device Collections	126
Number of Target Devices	1000
Number of vDisks	90
Number of Stores	3

Resource consumption

The resource consumption was measured in a Farm with three Provisioning Servers, having Citrix SCOM Management Pack Agent for Provisioning Services installed on them. The measurements were made by Windows Performance Monitor over a 24-hour period.

The resource consumption documented here is for only one Provisioning Server (the main PVS server). On the other servers in the Farm, the resource usage of PVSMonitorSvc is similar, but resource usage of HealthService is lower (average CPU values are 0.006 %).

Average consumption on Provisioning Server

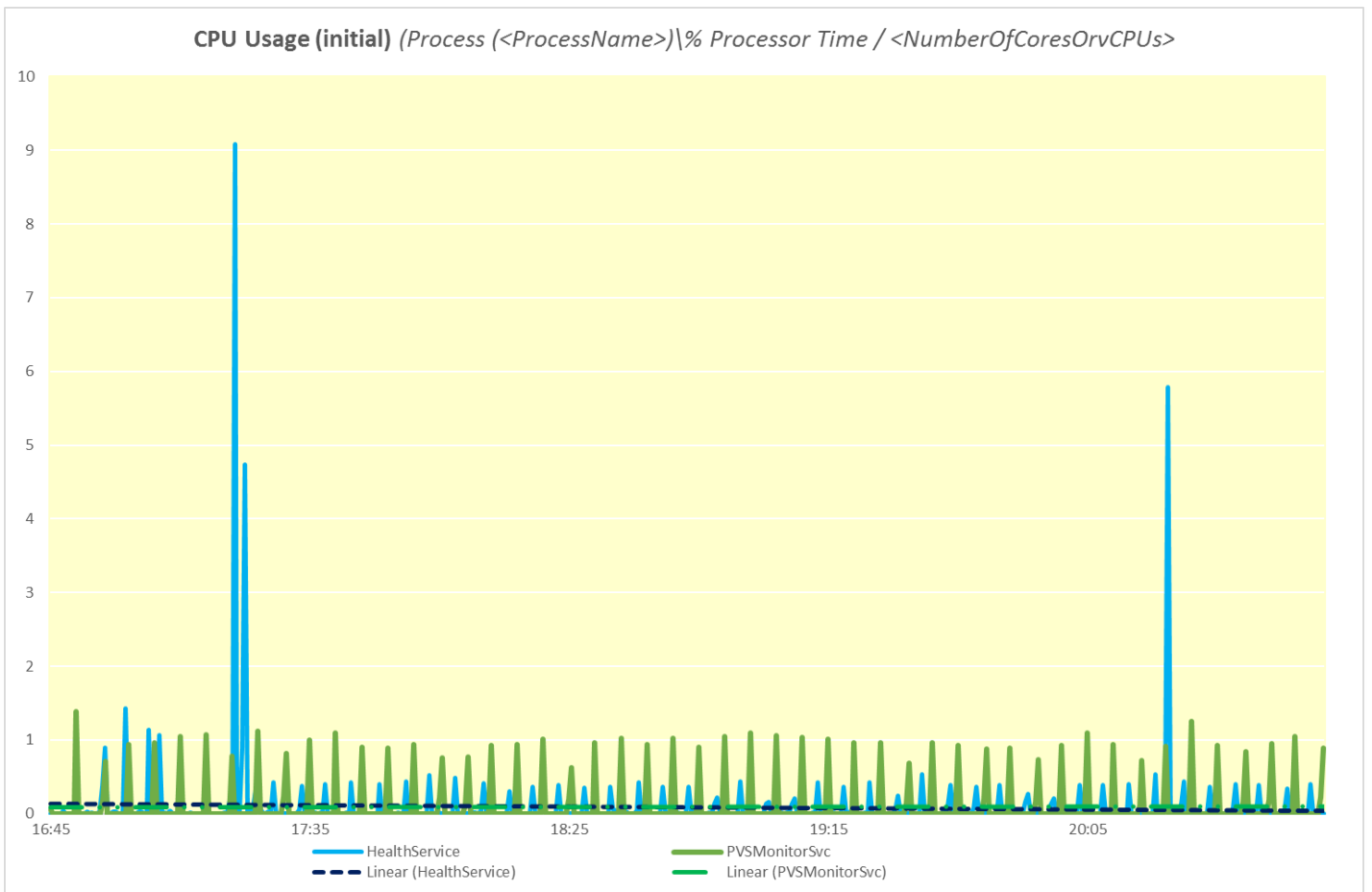
Item	Value
PVSMonitorSvc ¹ CPU usage ³	0.09%
HealthService ² CPU usage	0.07%
<i>PVSMonitorSvc</i> memory usage	63 MB
<i>HealthService</i> memory usage	35 MB

¹ On a monitored computer, PVSMonitorSvc is the main process of Citrix SCOM Management Pack Agent for Provisioning Services.

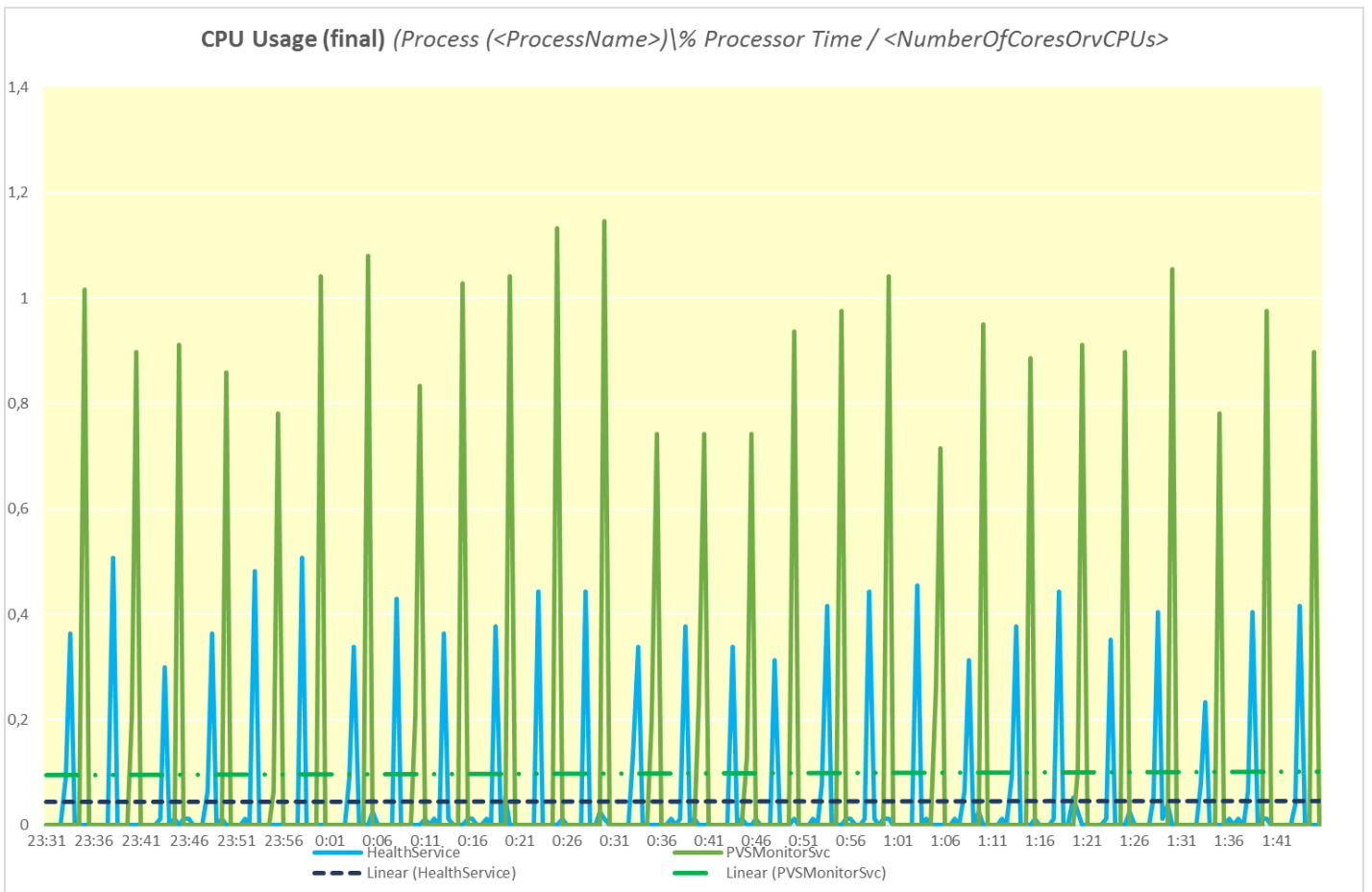
² On a monitored computer, the Operations Manager agent is listed as the System Center Management Health service. The System Center Management Health service collects performance data, executes tasks, and so on.

³ CPU usage is calculated as the quotient of the % *Processor Time* counter and the number of processor cores or virtual CPUs.

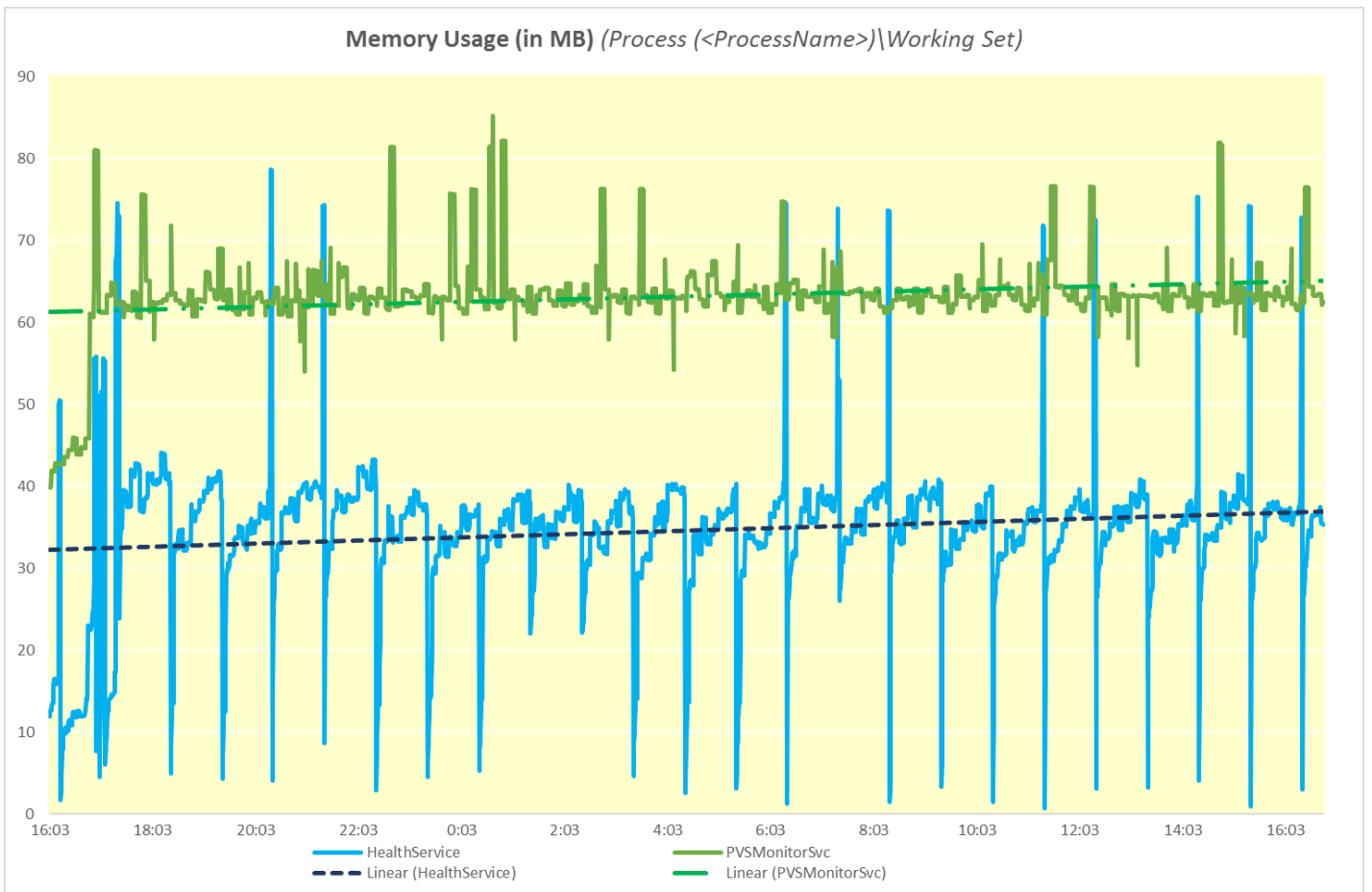
The following figure shows changes in the CPU usage of *PVSMonitorSvc* and *HealthService* after these services were started for the first time. Values taken from the first part of the entire measurement time period (first four hours) show an initial high data inflow and stabilized consumption after the first hour.



The following figure shows the typical pattern of changes in the CPU usage of *PVSMonitorSvc* and *HealthService* over a major part of the measurement time period. The loads periodically occurred every five minutes, and subsided after an initial high.



The following figure shows the memory usage of *PVSMonitorSvc* and *HealthService* measured with the validation set over time.



As the figure above shows, the Provisioning Server must contain at least 120MB of physical memory for the memory requirements of the *PVSMonitorSvc* and *HealthService*.

Citrix SCOM Management Pack 1.18 for Provisioning Services

Aug 14, 2017

Citrix SCOM Management Pack for Provisioning Services is an availability and performance management solution that extends end-to-end service monitoring capabilities of Microsoft System Center Operations Manager (**SCOM**) to include the Citrix Provisioning Services infrastructure.

With the Citrix SCOM Management Pack for Provisioning Services, you can:

- Improve the Provisioning Services infrastructure availability and health
If any important part of Provisioning Services environment is not available, the user may not be able to use its resources or use them with degraded performance. Citrix SCOM Management Pack for Provisioning Services actively monitors the availability and performance of many Provisioning Services components, such as Provisioning Servers, stores, network services, and so on.
- Gain more insight into the Provisioning Services performance
Performance degradation detection before the degradation affects end users is of great importance. With the Citrix SCOM Management Pack for Provisioning Services, you have the overall view of Provisioning Server's resource consumption, store disk space availability, target device utilization, and so on.

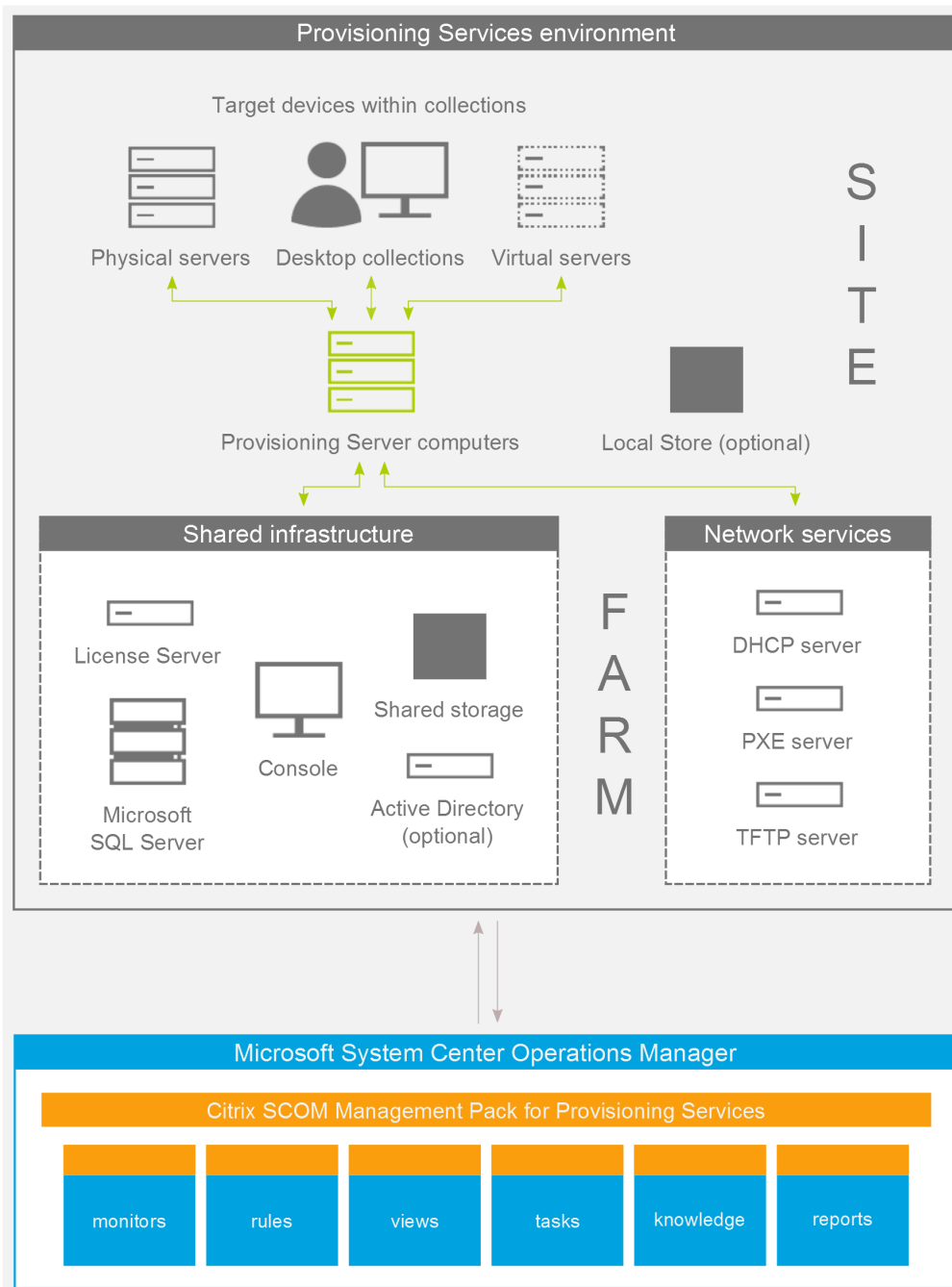
Citrix SCOM Management Pack for Provisioning Services fully integrates topology, health, and performance data into SCOM, providing an end-to-end operations overview across the entire Provisioning Services estate, and enabling delivery of effective business service management. It covers the following key scenarios:

- Are all Provisioning Services instances running?
- If disk image streaming gets slower than expected, servers having CPU or network interfaces overloaded are pinpointed.
- Are store paths and store write cache paths accessible and to which degree the stores are utilized?
- If a farm is not fully operational, non-operational sites and servers causing the problem are identified.
- How much are device collections utilized and how many target devices are connected to vDisks?
- Identify which crucial Provisioning Server services are not operational and get errors from Provisioning Server log files and Windows event logs.

Architecture

The following diagram shows how the Citrix SCOM Management Pack for Provisioning Services connects to the SCOM management platform and the Provisioning Services estate.

Figure A high-level view of the Citrix SCOM Management Pack for Provisioning Services architecture



What's new

Aug 14, 2017

Citrix SCOM Management Pack 1.18 for Provisioning Services introduces the following features:

Support for Citrix Provisioning Services. Citrix SCOM Management Pack for Provisioning Services now supports Provisioning Services version 7.14.

Enhanced handling of configuration data. Configuration data handling is now improved; it is encrypted using a user-supplied key for improved security. For more information, see [Configure encryption password](#) section in Install and configure.

Known Issues

The following is a list of known issues in this product version.

- **Issue ID:** SCOM-91 (6117)
- **Symptom:** In the output of the *Check Requirements and Configuration for Citrix MPPVS Agent* and *Set Farm Name on Citrix MPPVS Agent* tasks in the SCOM Operations console, the farm names, site names, and farm administrator user names that contain non-ASCII characters are not displayed correctly. For example, Spanish characters *çñ* appear as *ç* in a farm name, site name, or user name.
Action: None. Apart from the visual glitch, the functionality of the product is not affected in any way. You can therefore safely ignore the issue.

Fixed Issues

The following issue is fixed in this product version:

- **Issue ID:** SCOM-1697
Symptom: The Citrix SCOM Management Pack for Provisioning Services Agent might not get upgraded during an upgrade invoked either locally on the Provisioning Services server or remotely from the SCOM Operations console. The upgrade process initially removes the *Citrix MPPVS Agent* service. However, the previously installed agent package is not replaced and the earlier program version remains registered with the operating system.

Upgrading

Note: Product versions earlier than 1.13 were released under the name Comtrade Management Pack for Citrix Provisioning Services.

Upgrade is available only from versions 1.12 and later. During the upgrade process, the included management packs of the earlier product version are automatically upgraded; their prior removal is not required. Your management pack customization is preserved. For upgrade instructions, see [Upgrading](#) in Install and Configure.

System requirements

Aug 14, 2017

Before installing the Citrix SCOM Management Pack for Provisioning Services, make sure that your environment meets the requirements listed in this section.

The Citrix SCOM Management Pack for Provisioning Services requires a supported version of the following products that it integrates with:

- Citrix Provisioning Services
- Microsoft System Center Operations Manager

Supported Citrix Provisioning Services versions

The Citrix SCOM Management Pack for Provisioning Services is compatible with the following Citrix Provisioning Services versions:

Product Version	Supported
Citrix Provisioning Services 7.14	✓
Citrix Provisioning Services 7.13	✓
Citrix Provisioning Services 7.12	✓
Citrix Provisioning Services 7.11	✓
Citrix Provisioning Services 7.9	✓
Citrix Provisioning Services 7.8	✓
Citrix Provisioning Services 7.7	✓
Citrix Provisioning Services 7.6	✓
Citrix Provisioning Services 7.1	✓
Citrix Provisioning Services 7.0	✓

Supported SCOM versions

The Citrix SCOM Management Pack for Provisioning Services is compatible with the following SCOM versions:

Microsoft System Center Operations Manager version	Supported
Microsoft System Center Operations Manager 2016	✓
Microsoft System Center Operations Manager 2016 R2	✓
Microsoft System Center Operations Manager 2012 ¹ <small>1 This entry covers the following configurations: base release, base release + SP1 (Service Pack 1).</small>	✓

Language Support

The product can be deployed and operates correctly in environments where regional settings are configured to use any of the following languages:

Language	Language code	Supported
English	en	✓
Spanish	es	✓

Install and configure

Aug 14, 2017

This chapter contains instructions that you must follow to install and configure the Citrix SCOM Management Pack for Provisioning Services. Perform all procedures in the documented order of precedence.

Preparing for the installation

Before installing the Citrix SCOM Management Pack for Provisioning Services, make sure the following prerequisites are fulfilled:

- Your environment meets the software requirements. For software requirements, see [System Requirements](#).
A computer is chosen on which a SCOM management server resides and where the server side of Citrix SCOM Management Pack for Provisioning Services will be installed. This computer is referred to as **SCOM management server**.
- SCOM agent is installed on all the computers that host Provisioning Server, and these computers are configured as **agent-managed computers** in the SCOM management group.
- The Action Account of SCOM agent has administrative privileges on all the computers that host Provisioning Server.

Installing the product on the SCOM management server

The server-side part of the Citrix SCOM Management Pack for Provisioning Services must be installed on the SCOM management server.

To install the Citrix SCOM Management Pack for Provisioning Services on the SCOM management server, do the following:

1. Log on to the management server. Use a user account that has local administrative privileges and SCOM administrative privileges.
2. In Windows Explorer, locate the *Citrix_SCOM_Management_Pack_for_ProvisioningServices_<Version>.exe* file (where *<Version>* is the current software version), and double-click it to invoke the installation process. Wait for the Setup Wizard to appear.
3. In the Welcome page of the Setup Wizard, click **Next**.
4. In the View Relevant Product Configuration page, click **Next**.
5. In the License Agreement page of the Setup Wizard, read the end user license agreement carefully. If you accept the terms of the agreement, click **Next**.
6. In the Destination Folder page, define the Citrix SCOM Management Pack for Provisioning Services installation folder. Citrix recommends that you install the Citrix SCOM Management Pack for Provisioning Services to the default folder. Proceed as follows:
 - To install the product to the default folder listed in the Setup Wizard, no special actions are required.
 - To install the product to a different folder, follow the sub-steps:
 - Click **Change**.
 - In the Browse For Folder dialog box, browse to a desired installation folder, select it, and click **OK**.
7. Click **Next**.

8. In the Configure Post-Install Actions page of the Setup Wizard, decide whether the Setup Wizard should automatically import the included management packs into SCOM.
9. To let the Setup Wizard import the management packs, select the **Automatically import the Management Pack** option. Citrix recommends this choice.
10. To import the management packs into SCOM manually at a later time, leave the Automatically import the Management Pack option unselected. For instructions about how to import or reimport the management packs, see [Manually importing included management packs into SCOM](#).
11. Click **Install**. The Setup Wizard displays the Installing the product page and starts copying the installation files.
12. After the installation completes, the installation completion page is displayed.
13. If you let the Setup Wizard to automatically import the management packs, click **Next**. Else, click **Finish** to close the Setup Wizard.
14. If you let the Setup Wizard to automatically import the management packs, it displays the Executing post-install actions page. Attend the import process.
15. In the post-installation completion page, review the management packs import log, and click **Finish** to close the Setup Wizard.

Configuring access to the shared folder for agent installation

Note: Steps of this procedure must be followed only once on a SCOM management server. In case you previously installed any of the following Citrix Management Pack products on the same computer, you do not need to repeat the steps:

- Citrix SCOM Management Pack for ShareFile
- Citrix SCOM Management Pack for StoreFront
- Citrix SCOM Management Pack for Web Interface
- Citrix SCOM Management Pack for XenApp and XenDesktop
- Citrix SCOM Management Pack for XenApp
- Citrix SCOM Management Pack for XenMobile

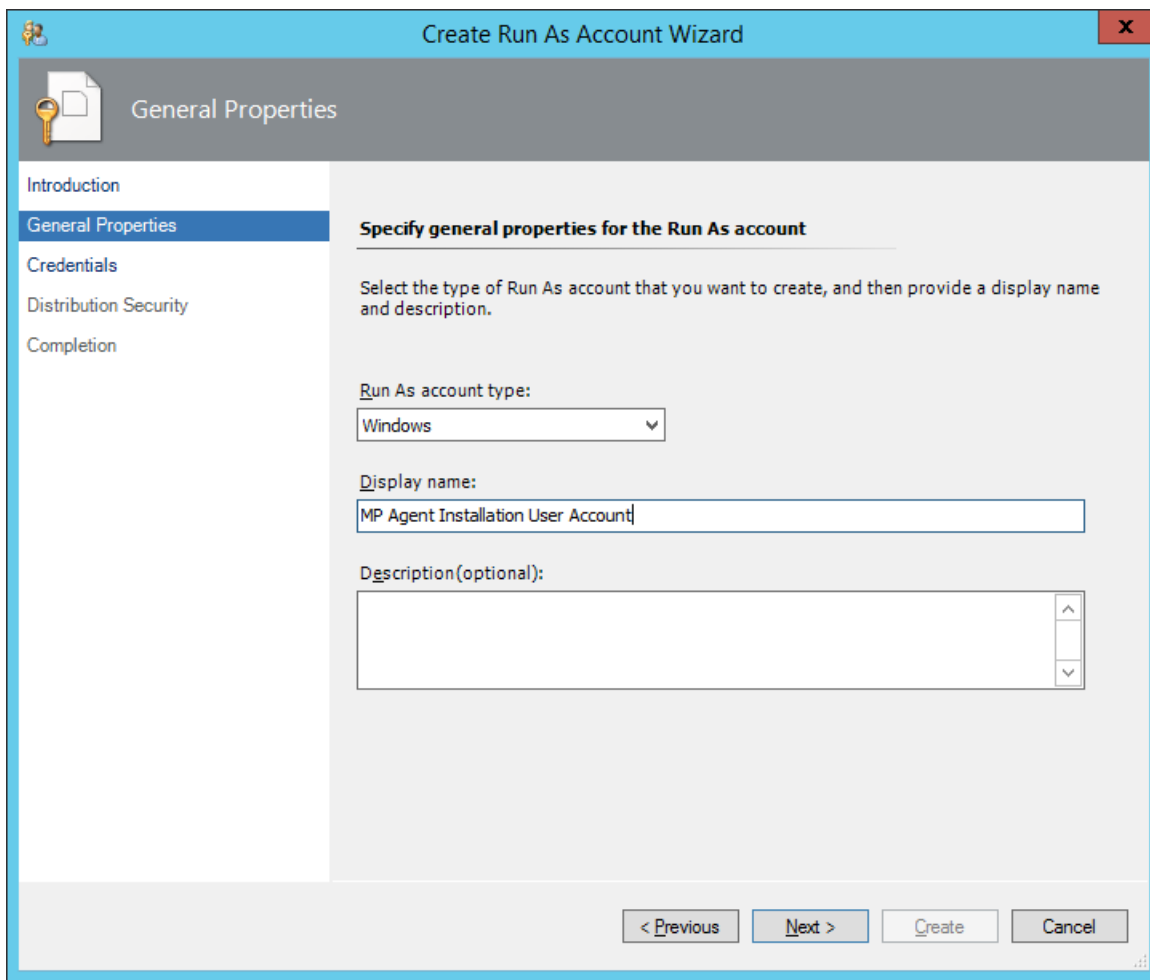
To configure access to the shared folder for agent installation, do the following:

1. Log on to the SCOM management server. Use a user account that has local administrative privileges.
2. Choose a local user account (local to the computer with the shared folder) or a domain user account that will have access to the shared folder, for the purpose of agent deployment and configuration.

Important: Citrix recommends creating a new, dedicated user account that you will use only for deployment of the Citrix SCOM Management Pack for Provisioning Services agent to managed computers.

3. Using an operating system administrative tool, add the user account to the local *CitrixMPShareUsers* user group.
4. Launch the SCOM Operations console.
5. In the **Administration** view, in the left pane, expand **Run As Configuration**, and then click **Accounts**.
6. In the Tasks pane, expand **Actions**, and then click **Create Run As Account**.
7. In the Create Run As Account Wizard window, click **Next**.
8. In the **Run As account type** drop-down menu, leave the default selection (*Windows*).

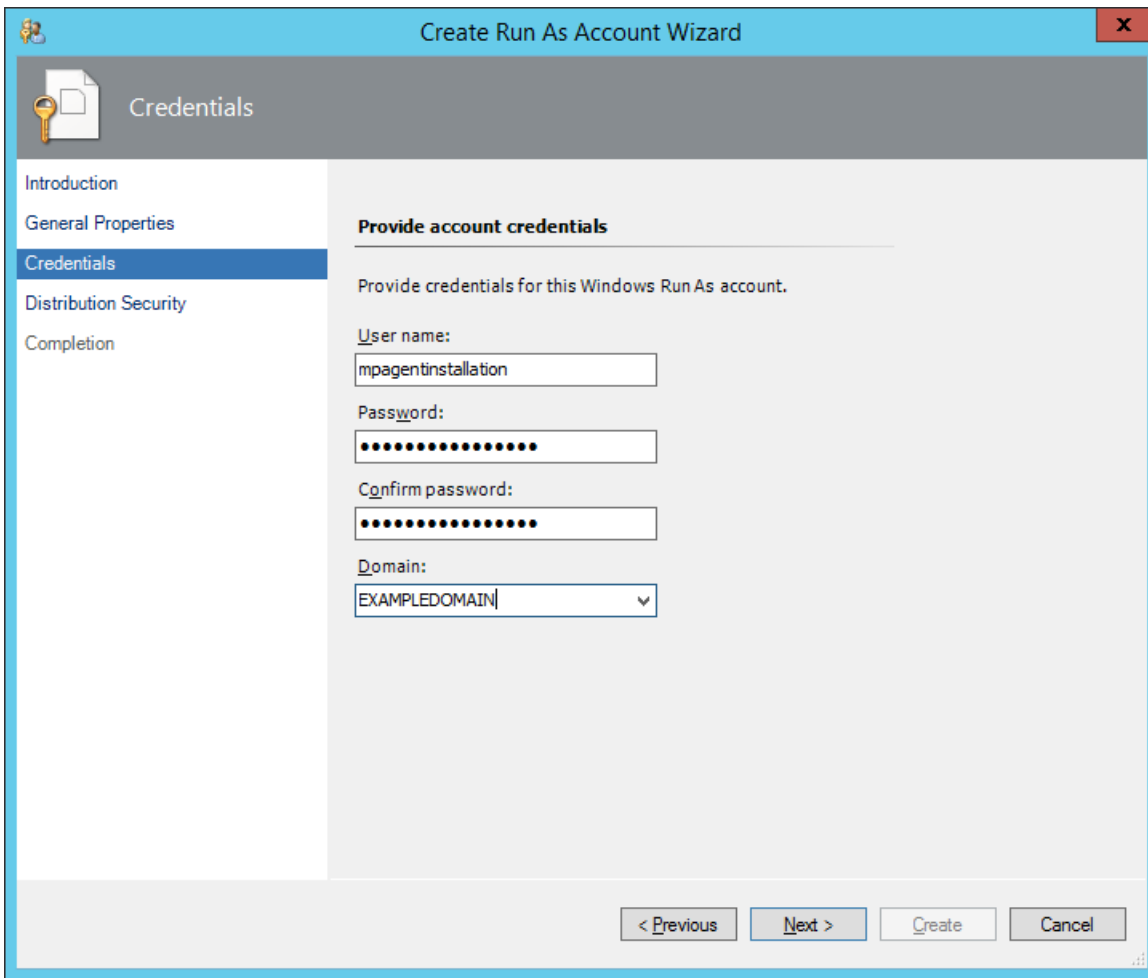
Figure The General Properties page



9. In the **Display name** text box, type a name that the SCOM Operations console will use to refer to the newly created SCOM user account. Click **Next**.

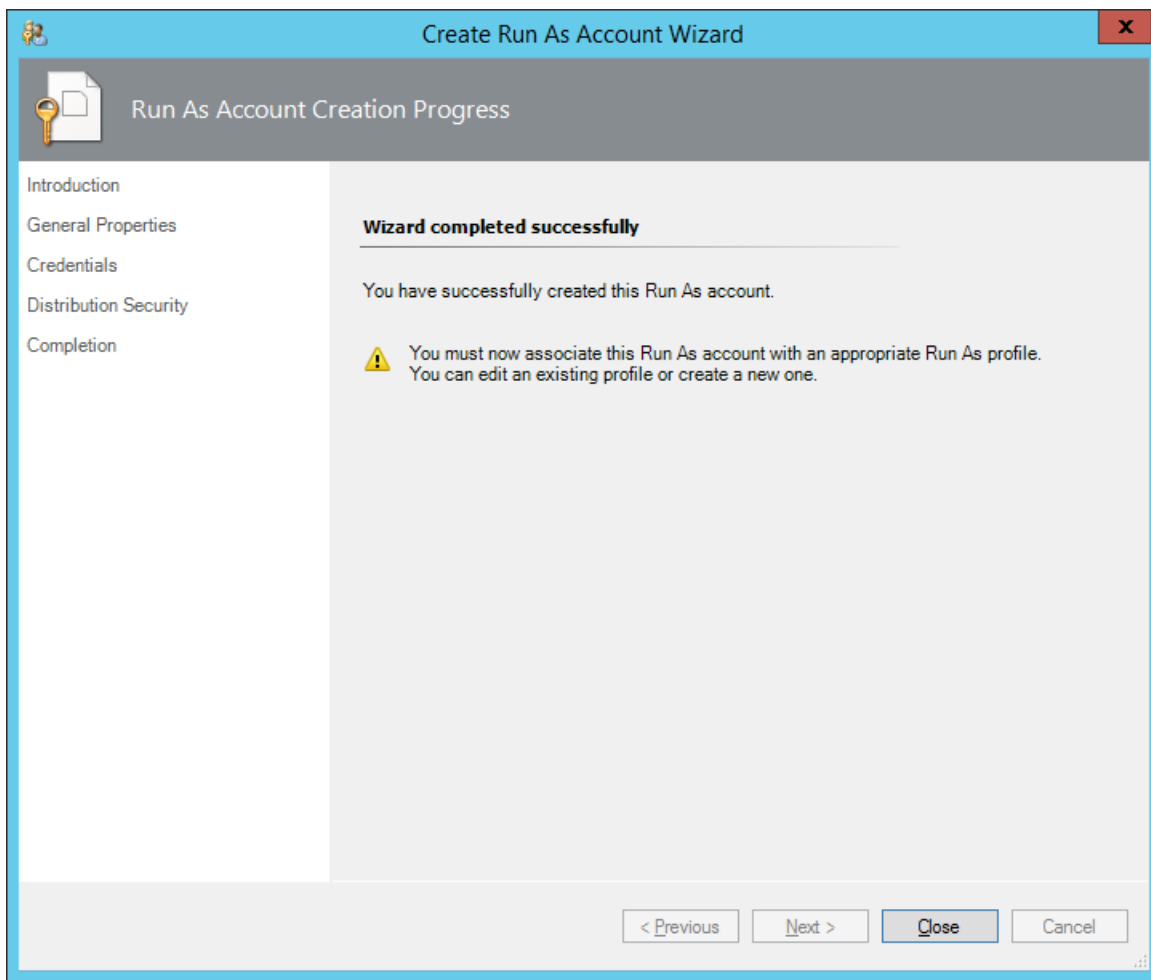
10. In the **User name** text box, type the user name of the operating system user account that you chose in step 2.

Figure The Credentials page



11. In the **Password** and **Confirm password** text boxes, type the valid password of the operating system user account.
12. In the **Domain** text box, update the value if needed. Click **Next**.
13. Depending on the effective security policy in your SCOM environment, select either the **Less secure** or **More secure** option.
Note: Selecting **More secure** requires manual steps to be performed in SCOM for each newly added managed computer.
14. Click **Create**.
15. After the message about successful account creation appears, click **Close**.

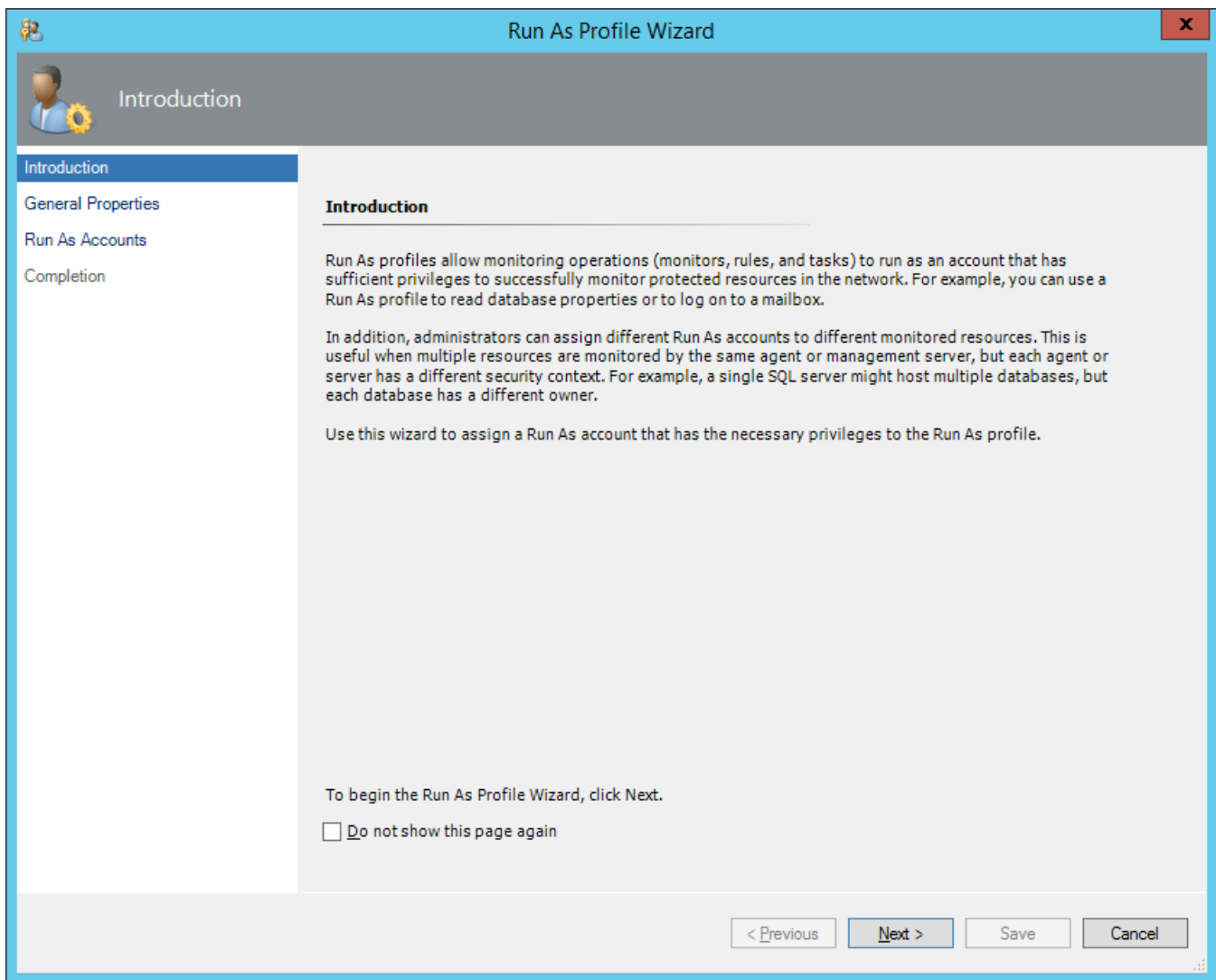
Figure The Completion page



16. In the left pane, under Run As Configuration, click **Profiles**.

17. In the Profiles list, double-click **Citrix Management Pack Network Share Account**.

Figure The Introduction page

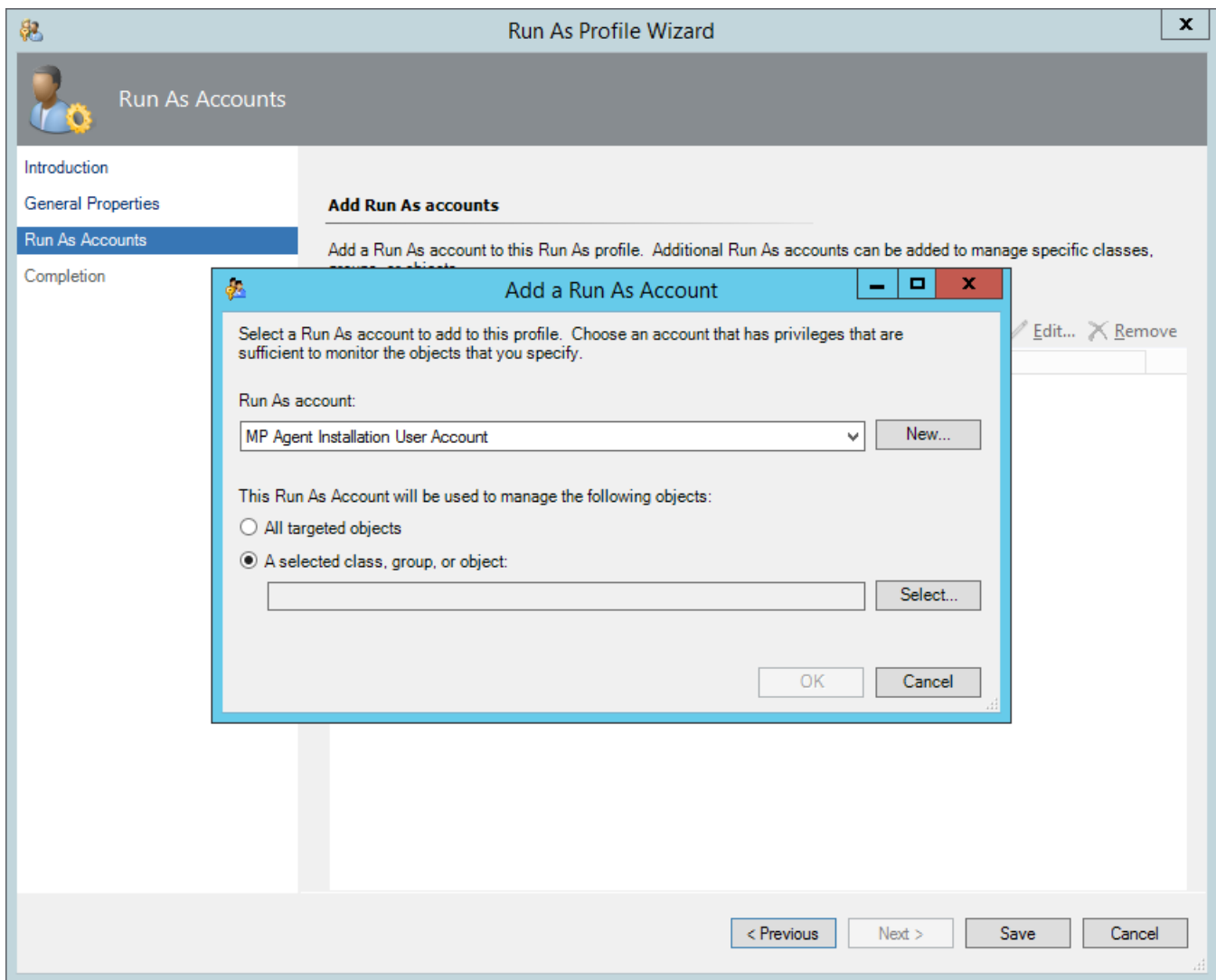


18. In the Run As Profile Wizard window, in the Introductory page, click **Next**. In the General Properties page, click **Next**.

19. In the Run As Accounts page, click **Add**.

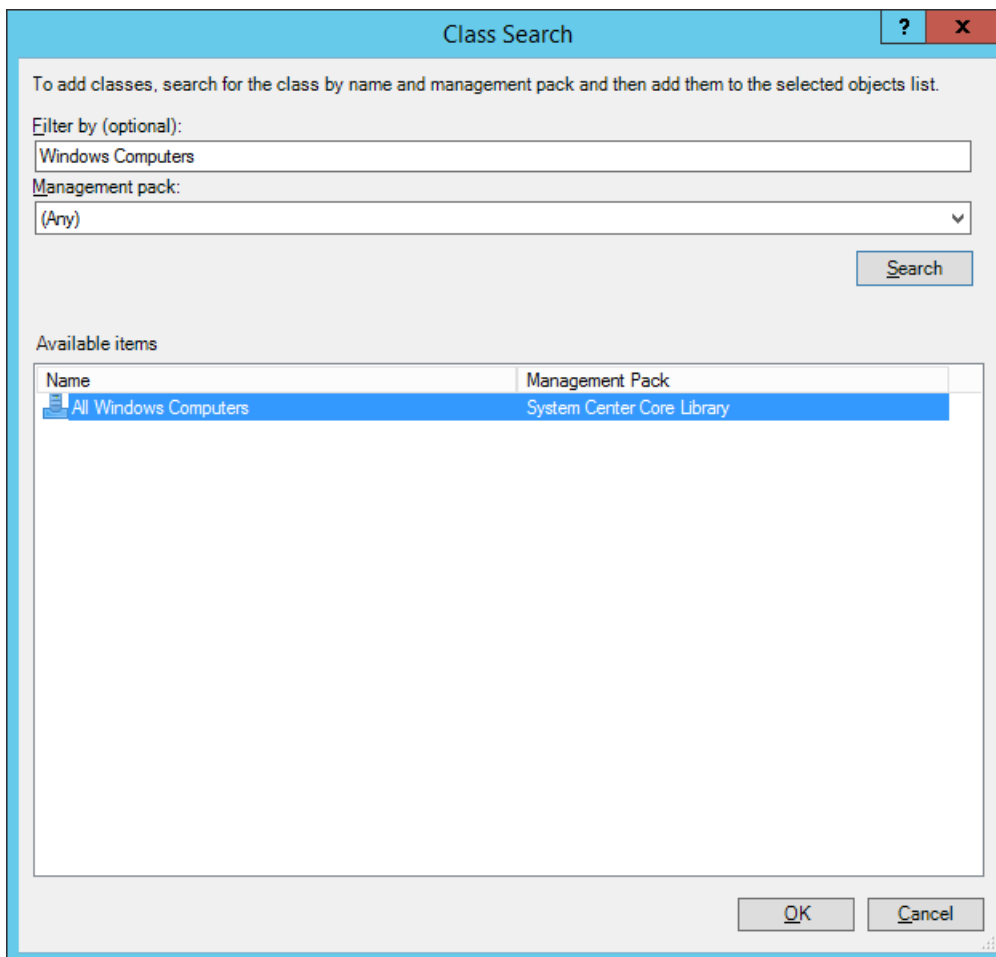
20. In the Add a Run As Account dialog box, in the Run as account list, select the newly created SCOM user account.

Figure The Add a Run As Account dialog box



21. Select the **A selected class, group, or object** option.
22. Click **Select** and then select **Class**.
23. In the Class Search dialog box, in the **Filter by (optional)** text box, type *Windows Computers*.
24. Click **Search**.
25. In the Available items list, select **All Windows Computers**.

Figure The Class Search dialog box



26. Click **OK** to close the Class Search dialog box.
27. Click **OK** to close the Add a Run As Account dialog box.
28. Click **Save** to update the profile. This may take a while.
29. Click **Close** to close the Run As Profile Wizard window.

Verifying the installation on the SCOM management server

To verify that the Citrix SCOM Management Pack for Provisioning Services installation on the management server is correct, do the following:

1. Log on to the management server.
2. Go to **Start > Control Panel** and click **Programs and Features** (actions of this step may differ on operating systems earlier than Windows Server 2016).
3. Check for the presence of the following entry in the Name column:
Citrix SCOM Management Pack for Provisioning Services
4. To check if the *CitrixMPShare* shared folder is correctly configured, open a Command Prompt window and run the following commands in sequence (their outputs in case of success are also shown):

Command:

```
net share / findstr -i CitrixMPShare
```

Command output:

```
CitrixMPShare  
    %ProgramData%\Citrix\CitrixMPShare
```

Command:

```
net use ||<ManagementServerHostName>\CitrixMPShare  
    /USER:<DomainName>\<UserName>
```

Command output:

```
The command completed successfully
```

Command:

```
dir ||<ManagementServerHostName>\CitrixMPShare
```

Command output:

```
<FolderContents>
```

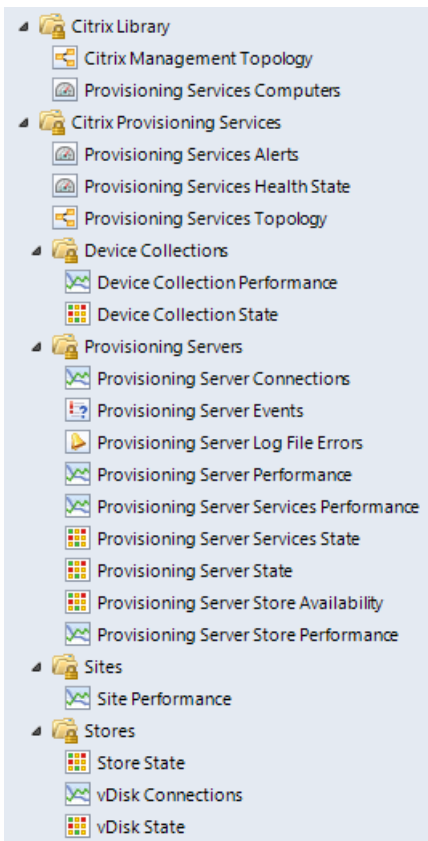
In these instances, *%ProgramData%* refers to the actual value of this operating system variable. *<ManagementServerHostName>* is the name of the SCOM management server. *<DomainName>* is the domain or computer name and *<UserName>* is the name of the user account that you chose in step 2 of the procedure documented in "Configuring access to the shared folder for agent installation." *<FolderContents>* is the list of the contents of the *CitrixMPShare* folder.

Note: The shared folder is vital for installation of the Citrix SCOM Management Pack for Provisioning Services agent and deployment of its configuration to the managed computers.

5. Launch the SCOM Operations console.

6. In the **Monitoring** view, expand the items in the left pane until they match the following figure.

Figure Elements of Citrix SCOM Management Pack for Provisioning Services, as seen in the SCOM Operations console



7. In the **Administration** view, expand **Administration > Management Packs** and click **Installed Management Packs** (the navigation pane structure may differ in SCOM versions earlier than 2016).

8. Verify the following management pack versions are listed in the results pane:

Citrix Management Pack for Provisioning Services	1.18.18.0
Citrix Management Pack for Provisioning Services Reports	1.18.18.0
Citrix Management Pack Library	1.0.32.0

Configuring encryption password

Encryption password is required to generate a key that is used to encrypt the configuration data. Set the encryption password on the first run of the **Provisioning Services MP Configuration** tool.

To set the encryption password:

1. Log on to the management server. Use a user account that has local administrative privileges.
2. Go to **Start > All apps > Citrix** (actions of this step may differ on operating systems earlier than Windows Server 2016).
3. Select **Provisioning Services MP Configuration**.
4. Go to the **Configuration encryption** tab.
5. Click **Set**.

6. In the dialog for inserting the password, type the password and click **Set**.

Note: Setting the encryption password is a prerequisite to saving the configuration data. If the encryption password is not set, the configuration tool automatically starts on the Configuration encryption tab.



The encryption password must be shared with the Citrix SCOM Management Pack for Provisioning Services Agent to be used to decrypt the configuration data. To share the encryption password, while running the **Install Citrix MPPVS Agent** task, override the **Encryption password** parameter with the password you set in Step 3. See the [Installing the product on the Provisioning Services computers](#) section.

To update the encryption password:

1. In the Provisioning Services MP Configuration tool, go to the **Configuration encryption** tab.
2. Click **Update**.
3. In the dialog for inserting the password, type the password and click **Update**.

If you update or set the encryption password after the agent is installed, run the **Update Configuration on Citrix MPPVS Agent** task. Override the **Encryption password** parameter in these tasks with the updated password.

Configuring SCOM agent to act as proxy on Provisioning Server computers

SCOM agent on each computer where Provisioning Server is installed must be configured to act as a proxy agent. This configuration enables the agent to relay or forward information from or about other computers and network devices to

the SCOM management server.

You can either configure SCOM agent instances one by one or you can configure all applicable SCOM agent instances at the same time. The latter scenario is particularly useful in large Provisioning Services environments.

To configure the SCOM agent instances one by one, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Administration** view, in the left pane, expand **Device Management**, and then click **Agent Managed**.
3. For each Provisioning Services (Provisioning Server) computer, follow the steps:
 - a. Right-click the host name, and select **Properties**.
 - b. Click the **Security** tab.
 - c. Select the **Allow this agent to act as proxy and discover managed objects on other computers** option.
 - d. Click **OK**.

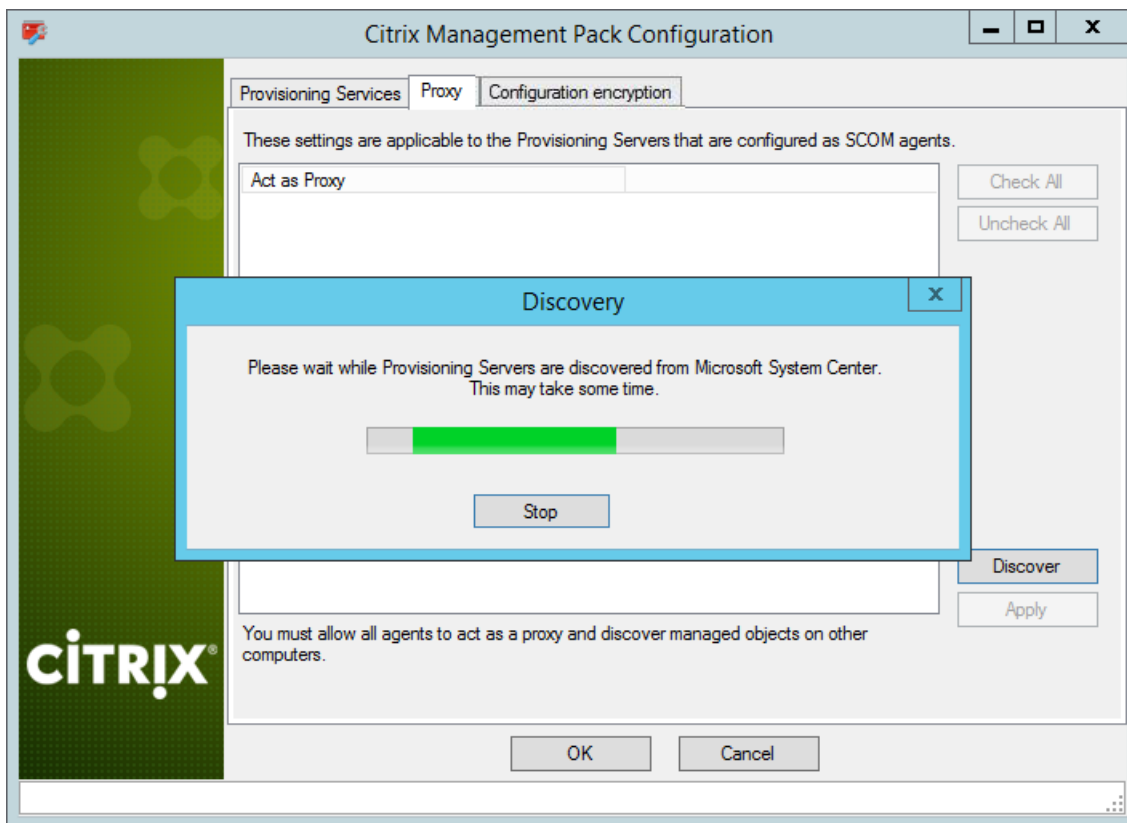
To configure all applicable SCOM agent instances (instances on all discovered Provisioning Server computers) at the same time, do the following:

1. Log on to the SCOM management server. Use a user account that has local administrative privileges.
2. Go to **Start > All apps > Citrix** (actions of this step may differ on operating systems earlier than Windows Server 2016).
3. Click **Provisioning Services MP Configuration**.
4. In the Citrix Management Pack Configuration window, click the **Proxy** tab.
5. Click **Discover** to invoke the discovery process. It will discover all computers that are listed in the Provisioning Services Computers list in the Monitoring view of the SCOM Operations console.

Note: Newly added agent-managed computers may not be immediately visible in the Provisioning Services Computers list in the SCOM Operations console. Allow some time for the list to get updated.

This discovery process may take a while.

Figure The Proxy tab of the Citrix Management Pack Configuration tool



6. Select the Provisioning Services computers or click **Check All** to select all of them. Click **Uncheck All** to clear the selection.
7. Click **Apply** to update the configuration in SCOM. This may take a while.
8. *Optional.* To cease a SCOM agent instance to act as a proxy agent, clear its entry in the Act as Proxy list, and click **Apply** to update the configuration in SCOM.
9. Click **OK** to close the window.

Providing information about Provisioning Services farm administrator account

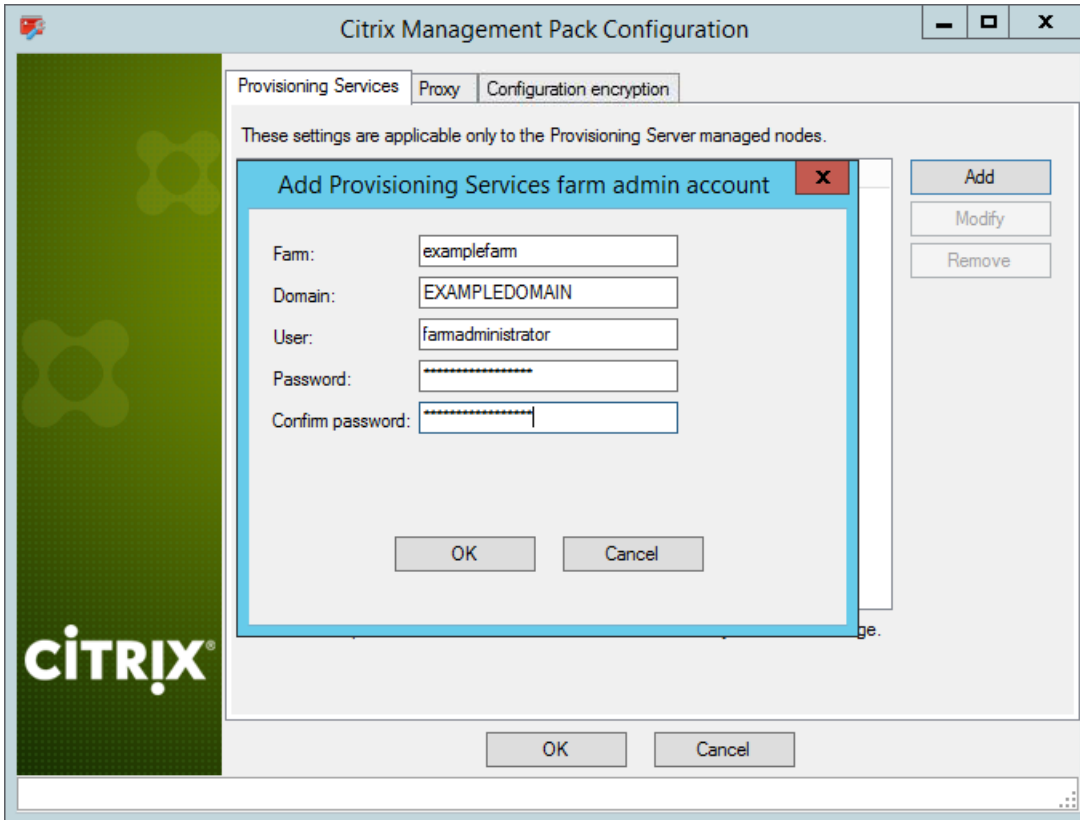
A farm administrator account must be provided to Citrix SCOM Management Pack for Provisioning Services for each Provisioning Services farm that you want to manage. This user account must be the local administrator of each Provisioning Services server and must have full access granted to the farm.

To provide the farm administrator accounts, do the following:

1. Log on to the management server. Use a user account that has local administrative privileges.
2. Go to **Start > All apps > Citrix** (actions of this step may differ on operating systems earlier than Windows Server 2016).
3. Click **Provisioning Services MP Configuration**.
4. In the Citrix Management Pack Configuration window, in the Provisioning Services tab, click **Add**.
5. In the Add Provisioning Services farm admin account dialog box, type the following data in the respective text boxes:
 - Farm name

- Properties of the farm administrator account:
 - Domain name
 - User name
 - Password

Figure The Add Provisioning Services farm admin account dialog box



6. Click **OK**.
7. Repeat steps 4 and 5 for each additional farm administrator account you want to set.
8. *Optional.* To modify the domain name, user name, or password of a farm administrator configuration, click **Modify**. In the Modify Provisioning Services farm admin account dialog box, modify the data as required, and then click **OK**.
9. *Optional.* To remove a farm administrator configuration, click **Remove** and then click **Yes**.
10. Click **OK** to apply the configuration changes and close the window.

Note: If you modify data for a Provisioning Services account where the Citrix SCOM Management Pack for Provisioning Service Agent is already installed on the Provisioning Services computers, run the *Update Configuration on Citrix MPPVS Agent* task from the SCOM Operations console to refresh the local configuration data

Installing the product on the Provisioning Services computers

On the Provisioning Services computers, only the Citrix SCOM Management Pack for Provisioning Services Agent must be

installed.

To install the Citrix SCOM Management Pack for Provisioning Services Agent on a Provisioning Services computer, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Monitoring** view, in the left pane, expand **Citrix Library**, and then click **Provisioning Services Computers**.
3. In the Provisioning Services Computers pane, select a Provisioning Services computer from the Provisioning Services Computers list.
4. In the Tasks pane, expand **Citrix MPPVS Agent Computer Role Tasks**, and then click **Install Citrix MPPVS Agent**.
5. In the Run Task - Install Citrix MPPVS Agent dialog box, adjust the task parameters as follows:
 - **UpgradeAgent**: This option, when set to *true*, causes uninstallation of the existing Citrix SCOM Management Pack for Provisioning Services Agent from the agent-managed computer before the current version is installed. Before such uninstallation, the SCOM agent must be put into maintenance mode.
Default value: *false*
 - **IgnorePrereqCheck**: You may not alter this option.
Default value: *false*
 - **Encryption password**: Override this parameter with the encryption password you set in Step 3 of the [Configuring encryption password](#) section.
Default value: (empty)
 - **Debug**: You may not alter this option.
Default value: *false*
 - **AgentInstallationSource**: This option defines location of the Management Pack agent installation package and its configuration files. Specify the value according to relationship between the agent-managed computer and the SCOM management server:
 - If SCOM agent on the agent-managed computer reports only to the management server where the Citrix SCOM Management Pack for XenApp and XenDesktop Management Pack is installed, leave the value empty. The location is automatically determined based on data retrieved from the agent-managed computer. In most cases, the retrieved location host name matches the host name of the management server where the installation task is invoked.
 - If the agent-managed computer is managed by some other management server or the computer hosts a multi-homed SCOM agent instance, specify the host name of the management server where the Citrix SCOM Management Pack for XenApp and XenDesktop Management Pack is installed.
 - If the agent-managed computer does not have access to the *CitrixMPShare* shared folder on the management server, specify the alternative location of the Management Pack agent installation package and its agent configuration files in the UNC format. A prerequisite is that these files are copied from the *CitrixMPShare* shared folder to a location the agent-managed computer has access to.
Default value: (empty)
 - **AgentInstallationDestination**: This option defines the Management Pack agent's program installation folder on the agent-managed computer. If no value is specified, the Management Pack agent is installed to the *%ProgramFiles%\Citrix\Provisioning Services MP Agent* folder.
Default value: (empty)
6. Click **Run** to invoke the installation process.
7. Observe the output the task generates. If the task reports no errors, the installation on the Provisioning Services computer is correct.

Tip: The task initially performs a prerequisite check. If any of the installation prerequisites are not fulfilled, the process is

interrupted before the actual installation begins. In this case, invoke the **Check Installation Prerequisites for Citrix MPPVS Agent** task to pinpoint the problematic prerequisite.

Tip: The Agent installation task can be run for multiple selected Provisioning Services computers.

Verifying the installation and configuration on the Provisioning Services computers

To verify that the Citrix SCOM Management Pack for Provisioning Services Agent installation and configuration on a Provisioning Services computer are correct, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Monitoring** view, in the left pane, expand **Citrix Library**, and then click **Provisioning Services Computers**.
3. In the Provisioning Services Computers pane, select the Provisioning Services computer (on which the Citrix SCOM Management Pack for Provisioning Service Agent was just installed) from the Provisioning Services Computers list.
4. In the Tasks pane, expand **Actions**, and then click **Check Requirements and Configuration for Citrix MPPVS Agent**.
5. Observe the output the task generates. If all checks are denoted successful, the installation and configuration on the Provisioning Services computer are correct.

Uninstall

This chapter contains instructions that you must follow to effectively uninstall the Citrix SCOM Management Pack for Provisioning Service. Perform all procedures in the documented order of precedence.

Uninstalling the product from the Provisioning Services computers

To uninstall the Citrix SCOM Management Pack for Provisioning Service Agent from a Provisioning Services computer, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Monitoring** view, expand **Citrix Library**, and then click **Provisioning Services Computers**.
3. In the Provisioning Services Computers pane, select a Provisioning Services computer from the Provisioning Services Computers list.
4. In the Tasks pane, expand **Actions**, and then click **Uninstall Citrix MPPVS Agent**.
5. In the Run Task - Uninstall Citrix MPPVS Agent dialog box, click **Run** to invoke the uninstallation process.
6. Repeat steps 3 to 5 for each additional Provisioning Services computer.

Tip: The Agent uninstallation task can be run for multiple selected Provisioning Services computers.

Removing dependent management packs (customizations)

Important: Perform this procedure only if you have customized the management packs included in the product.

To remove the customizations that you made to the management packs included in the Citrix SCOM Management Pack for Provisioning Service, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Administration** view, expand **Administration > Management Packs** and click **Installed Management Packs** (the navigation pane structure may differ in SCOM versions earlier than 2016).
3. In the results pane, locate the management packs that depend on the management packs included in Citrix SCOM Management Pack for Provisioning Service.
4. For each such dependent management pack (except for *Microsoft.SystemCenter.SecureReferenceOverride*), follow the steps:
 - a. Right-click it and then click **Delete**.
 - b. On the message stating that deleting the management pack might affect the scoping of some user roles, click **Yes**.

Removing included management packs

To remove the management packs included in the Citrix SCOM Management Pack for Provisioning Service, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Administration** view, expand **Administration > Management Packs** and click **Installed Management Packs** (the navigation pane structure may differ in SCOM versions earlier than 2016).
3. Remove references to the included management packs from the *Microsoft.SystemCenter.SecureReferenceOverride* management pack. To do this perform the following steps:
 - a. Identify which included management packs are referenced. In the **Administration > Management Packs** context of the SCOM Operations console, right-click **Microsoft.SystemCenter.SecureReferenceOverride** and select **Properties**. In the dialog box, click the **Dependencies** tab.
 - b. For each such referenced management pack, find out its ID. Right-click the referenced management pack. In the dialog box, take note of the value in the ID text box on the General tab.
 - c. Export the *Microsoft.SystemCenter.SecureReferenceOverride* management pack.
 - d. Make a copy of the file you exported the management pack to.
 - e. Edit the originally exported file: use the IDs to find and remove all dependencies to the management packs from the *Manifest > References* context (the *Reference* elements) and the *Monitoring > Overrides* context (the *SecureReferenceOverride* elements), and then save the changes.

Tip: For better tracking, increase the management pack version by adjusting the value of the *Version* element within the *Identity* element.

 - f. Import back the altered *Microsoft.SystemCenter.SecureReferenceOverride* management pack from the modified file.

4. In the results pane, right-click **Citrix Management Pack for Provisioning Services Reports**, and then select **Delete**.
5. On the message stating that deleting the management pack might affect the scoping of some user roles, click **Yes**.
6. Repeat steps 4 and 5 with **Citrix Management Pack for Provisioning Services**.
7. Check if other Citrix SCOM Management Pack products are installed on the management server. If none of them is installed, repeat steps 4 and 5 with **Citrix Management Pack Library**.

Uninstalling the product from the SCOM management server

To uninstall the Citrix SCOM Management Pack for Provisioning Service from the SCOM management server, do the following:

1. Log on to the management server. Use a user account that has local administrative privileges and SCOM administrative privileges.
2. Make sure no product folders or files are in use by any user.
3. Go to **Start > Control Panel** and click **Programs and Features** (actions of this step may differ on operating systems earlier than Windows Server 2016).
4. Right-click **Citrix SCOM Management Pack for Provisioning Services** and select **Uninstall**. Wait for the Setup Wizard to appear.
5. In the Welcome page of the Setup Wizard, click **Uninstall**.
6. In the Uninstalling the product page, the Setup Wizard reports the uninstallation progress.
7. In the Completion page of the Setup Wizard, click **Finish**.
8. Delete the `%ProgramData%\Citrix\CitrixMPShare\Provisioning Services MP` folder.
Caution This action permanently deletes the Agent configuration data. You will be unable to reuse it at a later time.
9. Check if other Citrix SCOM Management Pack products are installed on the management server. If none of them is installed, follow the steps:
 - a. Stop sharing the `CitrixMPShare` shared folder.
 - b. Delete the `%ProgramData%\Citrix\CitrixMPShare` folder.
 - c. Using an operating system administrative tool, delete the local `CitrixMPShareUsers` user group.

Upgrading

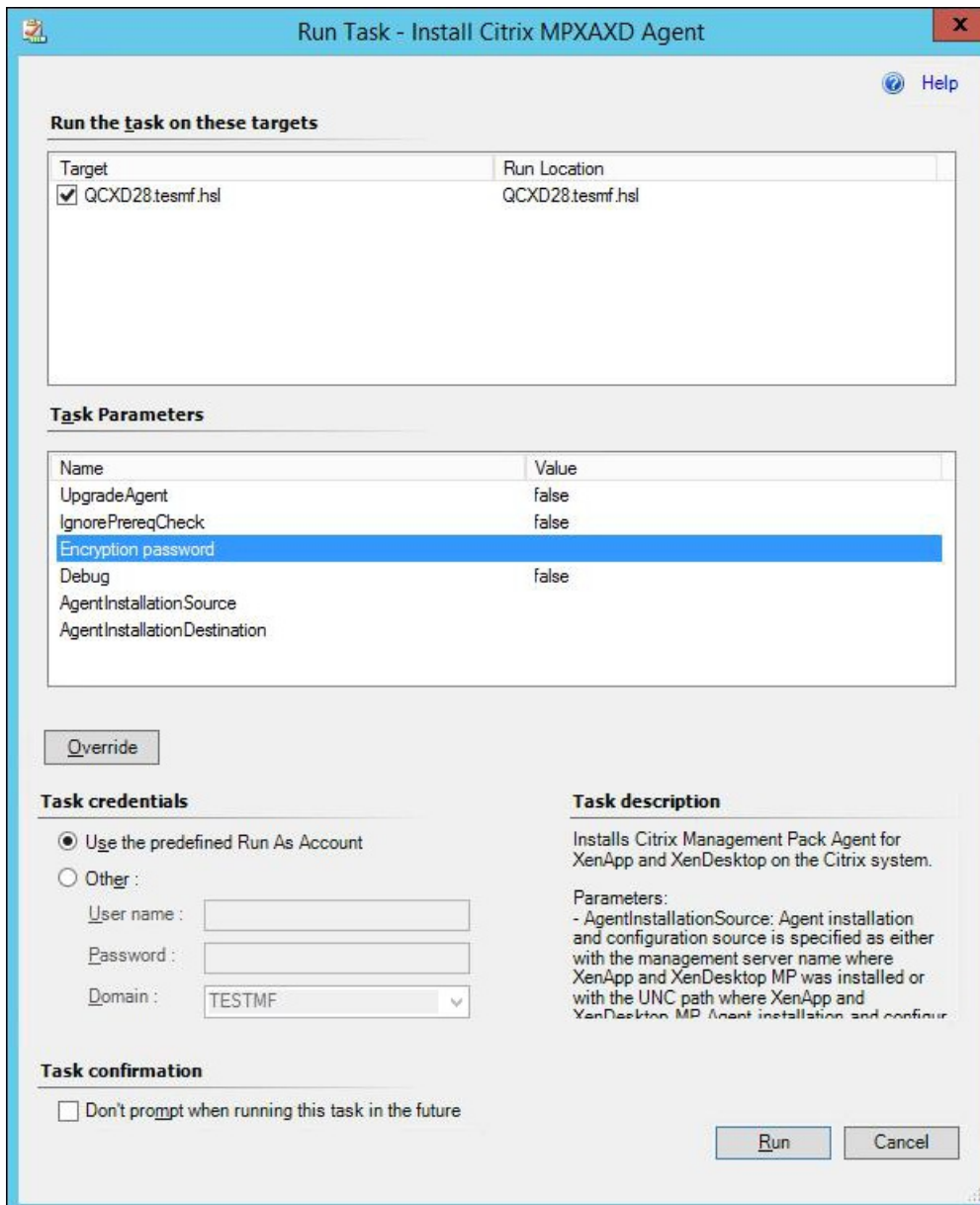
Upgrading from version 1.12

To upgrade the Citrix SCOM Management Pack for Provisioning Service from version 1.12, do the following:

1. Prepare your environment for installation of the new product version. For information, see [Preparing for the installation](#).
2. Uninstall the product from the SCOM management server computer. For instructions, see [Uninstalling the product from the SCOM management server](#).
Note: Uninstallation process preserves local configuration data.
3. Install the product (its server-side part) on the SCOM management server. For instructions, see [Installing the product on the SCOM management server](#).

4. Verify the installation of the product (its server-side part) on the SCOM management server. For instructions, see [Verifying the installation on the SCOM management server](#).
5. On the SCOM management server, move the *mppvs_config.dat* file from the *%ProgramData%\ComTrade\MPSHare\ProvisioningServices MP* directory to the *%ProgramData%\Citrix\CitrixMPShare\ProvisioningServices MP* directory.
6. Configure access to the shared folder for agent installation. For instructions, see [Configuring access to the shared folder for agent installation](#).
7. Install the product (its agent-side part) on the Provisioning Services computers. For instructions, see [Installing the product on the Provisioning Services computers](#).

Important: In the Run Task - Install Citrix MPPVS Agent dialog box, set the **UpgradeAgent** task parameter to *true*.



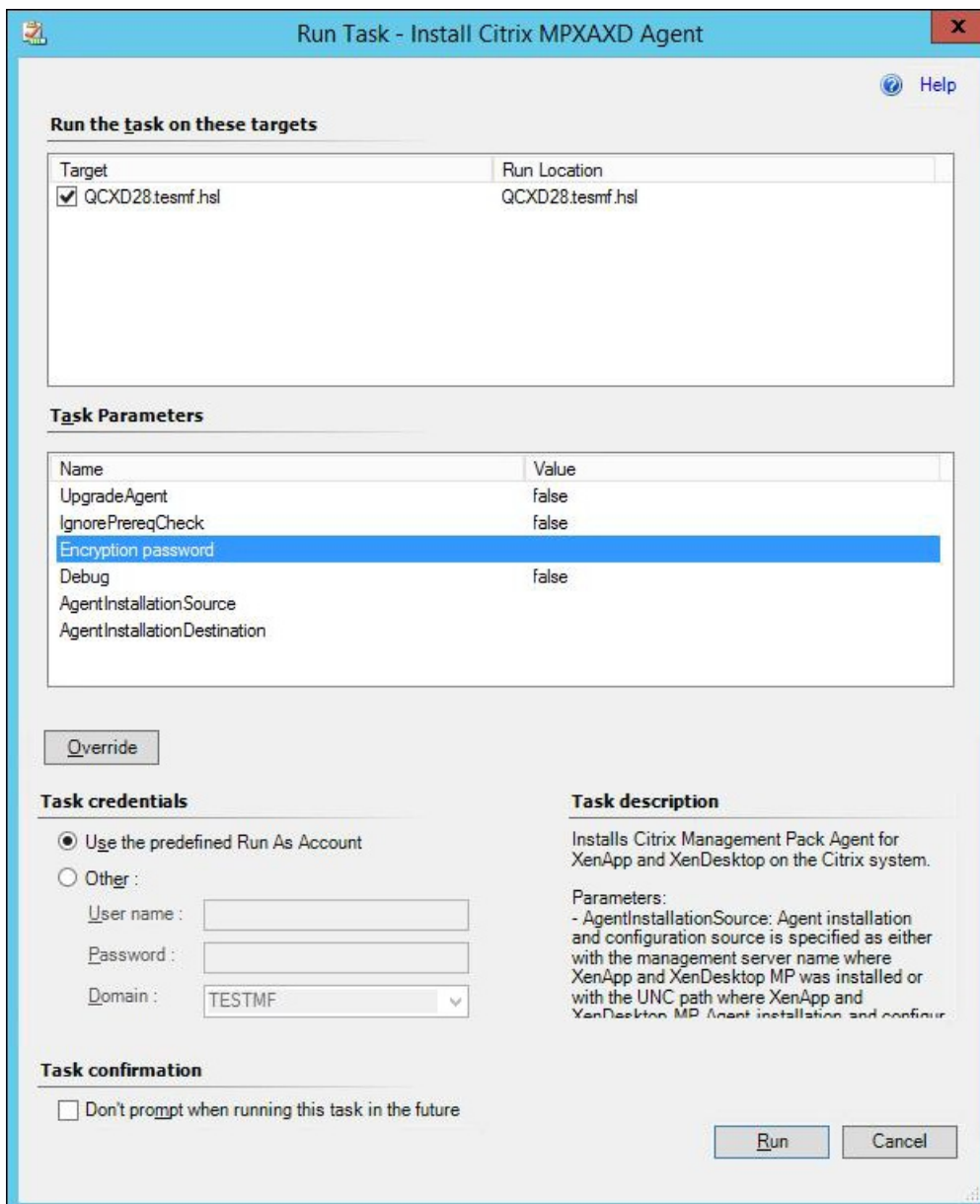
6. Verify the installation and configuration of the product (its agent-side part) on the Provisioning Services computers. For instructions, see [Verifying the installation and configuration on the Provisioning Services computers](#).

Upgrading from versions other than 1.12

To upgrade the Citrix SCOM Management Pack for Provisioning Service from versions other than 1.12, do the following:

1. Prepare your environment for installation of the new product version. For information, see [Preparing for the installation](#).
2. Uninstall the product from the SCOM management server computer. For instructions, see [Uninstalling the product from the SCOM management server](#).
3. Install the product (its server-side part) on the SCOM management server. For instructions, see [Installing the product on the SCOM management server](#).
4. Verify the installation of the product (its server-side part) on the SCOM management server. For instructions, see [Verifying the installation on the SCOM management server](#).
5. Install the product (its agent-side part) on the Provisioning Services computers. For instructions, see [Installing the product on the Provisioning Services computers](#).

Important: In the Run Task - Install Citrix MPPVS Agent dialog box, set the **UpgradeAgent** task parameter to *true*.



6. Verify the installation and configuration of the product (its agent-side part) on the Provisioning Services computers. For instructions, see [Verifying the installation and configuration on the Provisioning Services computers](#).

Optimize

Aug 14, 2017

For a general overview of Citrix Provisioning Services, see [Provisioning Services Product Overview](#) in the Citrix Provisioning Services documentation.

Citrix SCOM Management Pack for Provisioning Services is able to actively monitor the availability of Provisioning Servers and their dependent components. For this purpose, a Provisioning Services farm administrator account is required by the Citrix SCOM Management Pack for Provisioning Services to be able to log on to the farm.

With the Citrix SCOM Management Pack for Provisioning Services, you can monitor:

- Provisioning Server availability
- All Provisioning Server operating system services
- Local and shared stores accessibility
- Free disk space and write cache size on the stores
- Provisioning Server log files and entries in the operating system event log
- Provisioning Server resource consumption
- Target device activity on vDisks and device collections
- vDisk availability

Citrix SCOM Management Pack for Provisioning Services also collects data, gathered from Provisioning Services environment, such as:

- CPU and memory consumption on Provisioning Server host computers
- Network traffic on Provisioning Servers
- Number of all and active devices, and device utilization on device collections
- Number of all and active devices, and device utilization on site
- Number of connected target devices on Provisioning Servers
- Number of connected target devices on vDisks
- Store free space and free space utilization (from each Provisioning Server perspective)
- Store write cache size (from each Provisioning Server perspective)

All collected data is available in Performance views for short periods of time (depends on the effective settings for SCOM database grooming), and also through reports for extended periods of time.

Note: The health states of the monitored services are not propagated up to the Provisioning Services site level; they are only propagated to one level below it, namely to the *Servers* object.

For a complete list of monitors and rules available in Citrix SCOM Management Pack for Provisioning Services, see the [Reference Guide](#).

Manually importing included management packs into SCOM

For general instructions about how to import management packs into SCOM, see the [How to Import an Operations](#)

[Manager Management Pack](#) webpage on the Microsoft TechNet website.

To import the sealed management packs for Provisioning Services manually, do the following:

1. Log on to the management server.
2. Launch the SCOM Operations console.
3. In the Administration view, click **Management Packs**.
4. In the Tasks pane, expand **Actions**, and then click **Import Management Packs**.
5. In the Import Management Packs dialog box, click **Add**, and then select **Add from disk**.
6. In the Online Catalog Connection, click **No**.
7. In the Select Management Packs to import dialog box, browse to the folder that contains the following management pack files, select those files, and then click **Open**.
 - *Comtrade.Citrix.Library.mp*
 - *Comtrade.Citrix.ProvisioningServices.mp*
 - *Comtrade.Citrix.ProvisioningServices.Reports.mp*
8. Click **Install**.

Customizing sealed management packs

Customization of the sealed management packs that the Citrix SCOM Management Pack for Provisioning Services provides is similar to the default SCOM management pack customization. For details, see the Microsoft TechNet website:

- For general information about customization of management packs, see the [Customizing Management Packs](#) webpage.
- For instructions on how to customize a management pack, see the [Create a New Management Pack for Customizations](#) webpage.

Citrix SCOM Management Pack 1.17 for Provisioning Services

Aug 14, 2017

Citrix SCOM Management Pack for Provisioning Services is an availability and performance management solution that extends end-to-end service monitoring capabilities of Microsoft System Center Operations Manager (**SCOM**) to include the Citrix Provisioning Services infrastructure.

With the Citrix SCOM Management Pack for Provisioning Services, you can:

- Improve the Provisioning Services infrastructure availability and health
If any important part of Provisioning Services environment is not available, the user may not be able to use its resources or use them with degraded performance. Citrix SCOM Management Pack for Provisioning Services actively monitors the availability and performance of many Provisioning Services components, such as Provisioning Servers, stores, network services, and so on.
- Gain more insight into the Provisioning Services performance
Performance degradation detection before the degradation affects end users is of great importance. With the Citrix SCOM Management Pack for Provisioning Services, you have the overall view of Provisioning Server's resource consumption, store disk space availability, target device utilization, and so on.

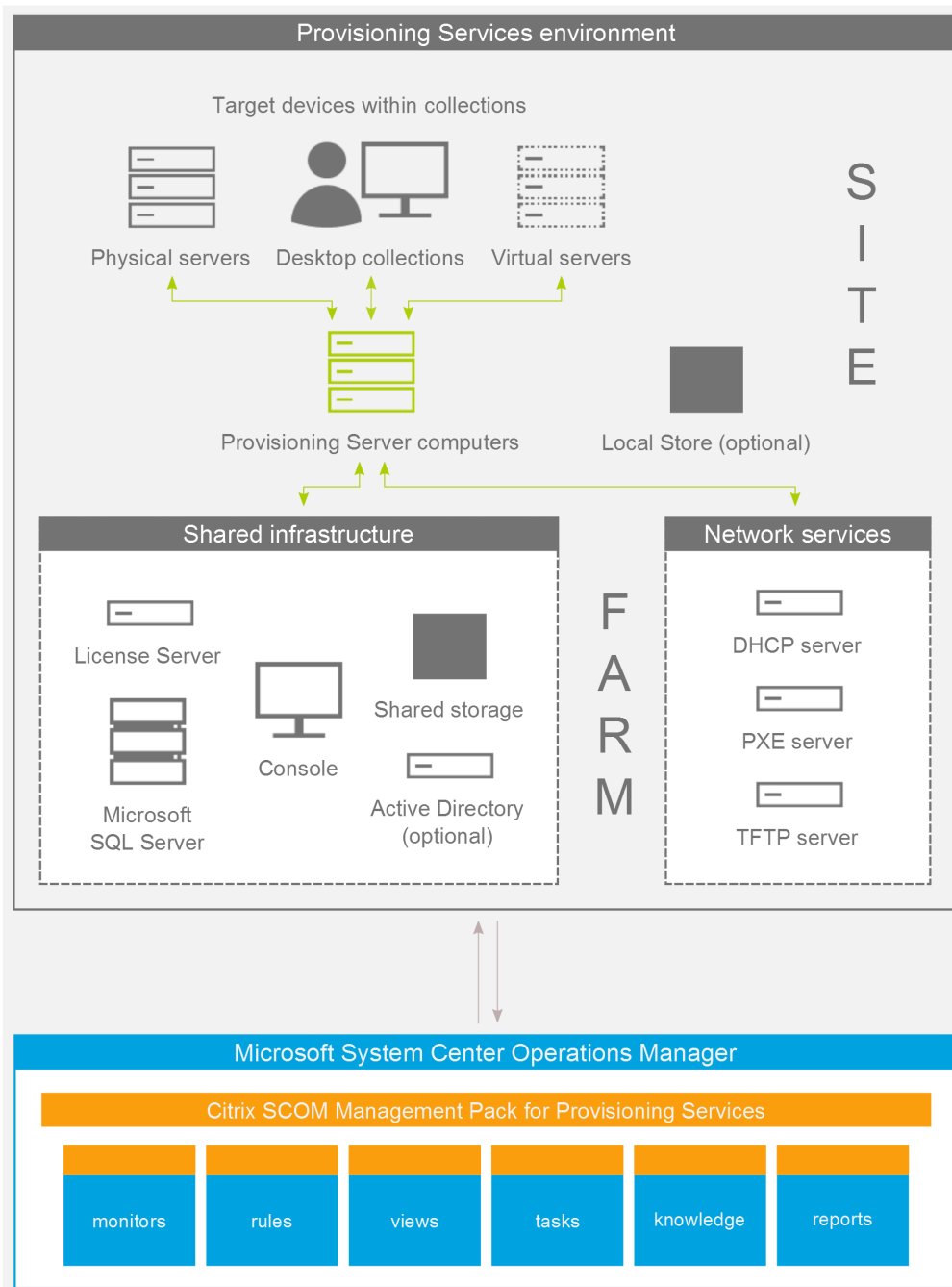
Citrix SCOM Management Pack for Provisioning Services fully integrates topology, health, and performance data into SCOM, providing an end-to-end operations overview across the entire Provisioning Services estate, and enabling delivery of effective business service management. It covers the following key scenarios:

- Are all Provisioning Services instances running?
- If disk image streaming gets slower than expected, servers having CPU or network interfaces overloaded are pinpointed.
- Are store paths and store write cache paths accessible and to which degree the stores are utilized?
- If a farm is not fully operational, non-operational sites and servers causing the problem are identified.
- How much are device collections utilized and how many target devices are connected to vDisks?
- Identify which crucial Provisioning Server services are not operational and get errors from Provisioning Server log files and Windows event logs.

Architecture

The following diagram shows how the Citrix SCOM Management Pack for Provisioning Services connects to the SCOM management platform and the Provisioning Services estate.

Figure A high-level view of the Citrix SCOM Management Pack for Provisioning Services architecture



What's new

Aug 14, 2017

Citrix SCOM Management Pack 1.17 for Provisioning Services introduces the following features:

- **Documentation in HTML format.** The documentation for the Citrix SCOM Management Pack 1.17 for Provisioning Services is available in HTML format. To access the documentation of earlier versions, see [Citrix SCOM Management Pack for Provisioning Services](#).
- **Support for Citrix Provisioning Services 7.13.** Citrix SCOM Management Pack for Provisioning Services supports Provisioning Services version 7.13.

Known Issues

The following is a list of known issues in this product version.

- **Issue ID:** SCOM-1176
Symptom: The Citrix SCOM Management Pack for Provisioning Services Agent might not get upgraded during an upgrade invoked either locally on the Provisioning Services server or remotely from the SCOM Operations console. The upgrade process initially removes the *Citrix MPPVS Agent* service. However, the previously installed agent package is not replaced and the earlier program version remains registered with the operating system
Action: Repeat the upgrade procedure.
- **Issue ID:** SCOM-832
Symptom: Health states of the monitored services are not propagated up to the Provisioning Services site level; they are only propagated to one level below it, namely to the *Servers* object.
Action: None. There is no workaround available.
- **Issue ID:** SCOM-91 (6117)
Symptom: In the output of the *Check Requirements and Configuration for Citrix MPPVS Agent* and *Set Farm Name on Citrix MPPVS Agent* tasks in the SCOM Operations console, the farm names, site names, and farm administrator user names that contain non-ASCII characters are not displayed correctly. For example, Spanish characters *çñ* appear as *çñ* in a farm name, site name, or user name.
Action: None. Apart from the visual glitch, the functionality of the product is not affected in any way. You can therefore safely ignore the issue.

Fixed Issues

- After upgrading the product from version 1.13 or 1.12, the %ProgramData%\Comtrade folder is left on the local system. This issue occurs on the SCOM management server and on the agent-managed computers.
[SCOM-466]

Upgrading

Note: Product versions earlier than 1.13 were released under the name Comtrade Management Pack for Citrix Provisioning Services.

Upgrade is available only from versions 1.12 and later. During the upgrade process, the included management packs of the earlier product version are automatically upgraded; their prior removal is not required. Your management pack customization is preserved. For upgrade instructions, see [Upgrading](#) in Install and Configure.

System requirements

Aug 14, 2017

Before installing the Citrix SCOM Management Pack for Provisioning Services, make sure that your environment meets the requirements listed in this section.

The Citrix SCOM Management Pack for Provisioning Services requires a supported version of the following products that it integrates with:

- Citrix Provisioning Services
- Microsoft System Center Operations Manager

Supported Citrix Provisioning Services versions

The Citrix SCOM Management Pack for Provisioning Services is compatible with the following Citrix Provisioning Services versions:

Product Version	Supported
Citrix Provisioning Services 7.13	✓
Citrix Provisioning Services 7.12	✓
Citrix Provisioning Services 7.11	✓
Citrix Provisioning Services 7.9	✓
Citrix Provisioning Services 7.8	✓
Citrix Provisioning Services 7.7	✓
Citrix Provisioning Services 7.6	✓
Citrix Provisioning Services 7.1	✓
Citrix Provisioning Services 7.0	✓

Supported SCOM versions

The Citrix SCOM Management Pack for Provisioning Services is compatible with the following SCOM versions:

Microsoft System Center Operations Manager version	Supported
Microsoft System Center Operations Manager 2016	✓
Microsoft System Center Operations Manager 2016 R2	✓
Microsoft System Center Operations Manager 2012 ¹ <small>1 This entry covers the following configurations: base release, base release + SP1 (Service Pack 1).</small>	✓

Language Support

The product can be deployed and operates correctly in environments where regional settings are configured to use any of the following languages:

Language	Language code	Supported
English	en	✓
Spanish	es	✓

Install and configure

Aug 14, 2017

This chapter contains instructions that you must follow to install and configure the Citrix SCOM Management Pack for Provisioning Services. Perform all procedures in the documented order of precedence.

Preparing for the installation

Before installing the Citrix SCOM Management Pack for Provisioning Services, make sure the following prerequisites are fulfilled:

- Your environment meets the software requirements. For software requirements, see [System Requirements](#).
A computer is chosen on which a SCOM management server resides and where the server side of Citrix SCOM Management Pack for Provisioning Services will be installed. This computer is referred to as **SCOM management server**.
- SCOM agent is installed on all the computers that host Provisioning Server, and these computers are configured as **agent-managed computers** in the SCOM management group.
- The Action Account of SCOM agent has administrative privileges on all the computers that host Provisioning Server.

Installing the product on the SCOM management server

The server-side part of the Citrix SCOM Management Pack for Provisioning Services must be installed on the SCOM management server.

To install the Citrix SCOM Management Pack for Provisioning Services on the SCOM management server, do the following:

1. Log on to the management server. Use a user account that has local administrative privileges and SCOM administrative privileges.
2. In Windows Explorer, locate the *Citrix_SCOM_Management_Pack_for_ProvisioningServices_<Version>.exe* file (where *<Version>* is the current software version), and double-click it to invoke the installation process. Wait for the Setup Wizard to appear.
3. In the Welcome page of the Setup Wizard, click **Next**.
4. In the View Relevant Product Configuration page, click **Next**.
5. In the License Agreement page of the Setup Wizard, read the end user license agreement carefully. If you accept the terms of the agreement, click **Next**.
6. In the Destination Folder page, define the Citrix SCOM Management Pack for Provisioning Services installation folder. Citrix recommends that you install the Citrix SCOM Management Pack for Provisioning Services to the default folder. Proceed as follows:
 - To install the product to the default folder listed in the Setup Wizard, no special actions are required.
 - To install the product to a different folder, follow the sub-steps:
 - Click **Change**.
 - In the Browse For Folder dialog box, browse to a desired installation folder, select it, and click **OK**.
7. Click **Next**.

8. In the Configure Post-Install Actions page of the Setup Wizard, decide whether the Setup Wizard should automatically import the included management packs into SCOM.
9. To let the Setup Wizard import the management packs, select the **Automatically import the Management Pack** option. Citrix recommends this choice.
10. To import the management packs into SCOM manually at a later time, leave the Automatically import the Management Pack option unselected. For instructions about how to import or reimport the management packs, see [Manually importing included management packs into SCOM](#).
11. Click **Install**. The Setup Wizard displays the Installing the product page and starts copying the installation files.
12. After the installation completes, the installation completion page is displayed.
13. If you let the Setup Wizard to automatically import the management packs, click **Next**. Else, click **Finish** to close the Setup Wizard.
14. If you let the Setup Wizard to automatically import the management packs, it displays the Executing post-install actions page. Attend the import process.
15. In the post-installation completion page, review the management packs import log, and click **Finish** to close the Setup Wizard.

Configuring access to the shared folder for agent installation

Note: Steps of this procedure must be followed only once on a SCOM management server. In case you previously installed any of the following Citrix Management Pack products on the same computer, you do not need to repeat the steps:

- Citrix SCOM Management Pack for ShareFile
- Citrix SCOM Management Pack for StoreFront
- Citrix SCOM Management Pack for Web Interface
- Citrix SCOM Management Pack for XenApp and XenDesktop
- Citrix SCOM Management Pack for XenApp
- Citrix SCOM Management Pack for XenMobile

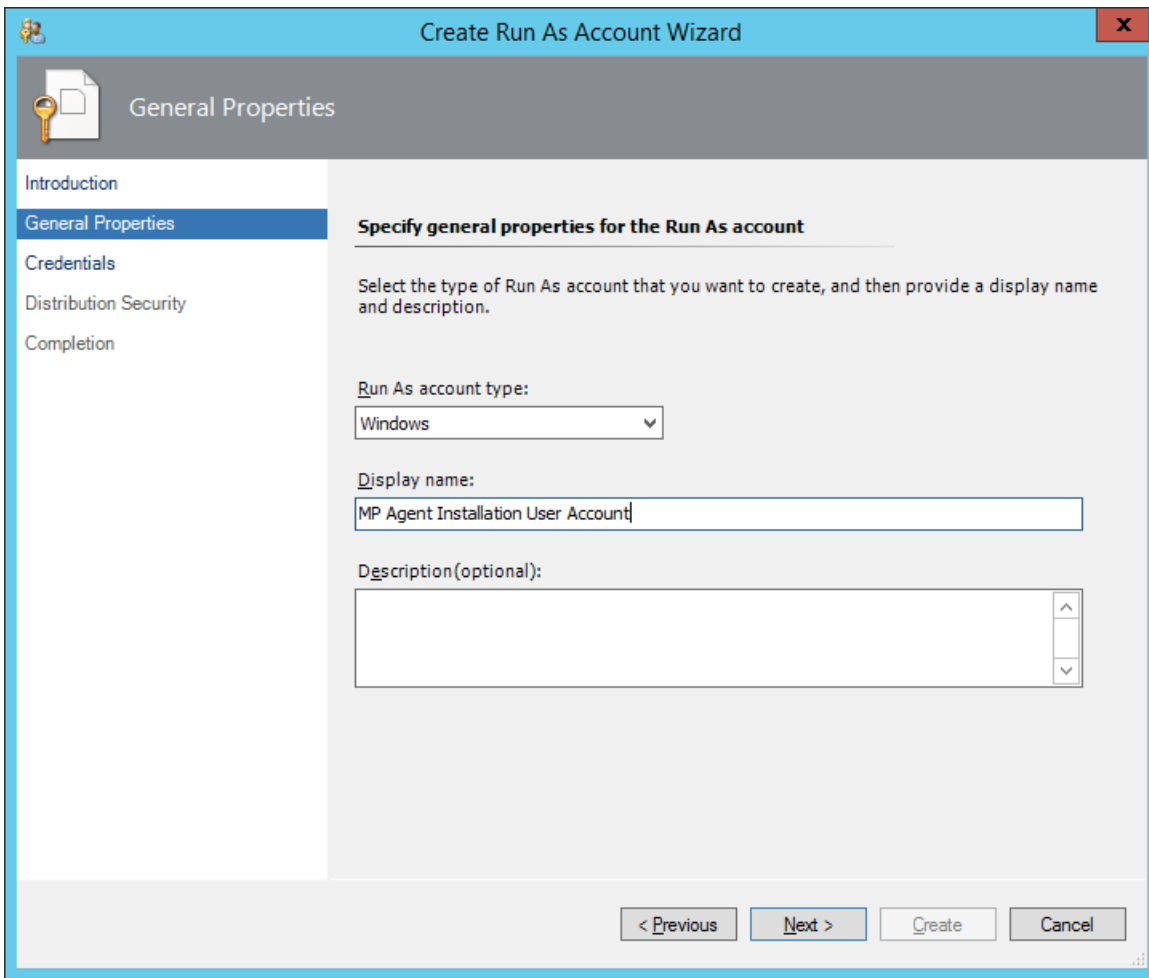
To configure access to the shared folder for agent installation, do the following:

1. Log on to the SCOM management server. Use a user account that has local administrative privileges.
2. Choose a local user account (local to the computer with the shared folder) or a domain user account that will have access to the shared folder, for the purpose of agent deployment and configuration.

Important: Citrix recommends creating a new, dedicated user account that you will use only for deployment of the Citrix SCOM Management Pack for Provisioning Services agent to managed computers.

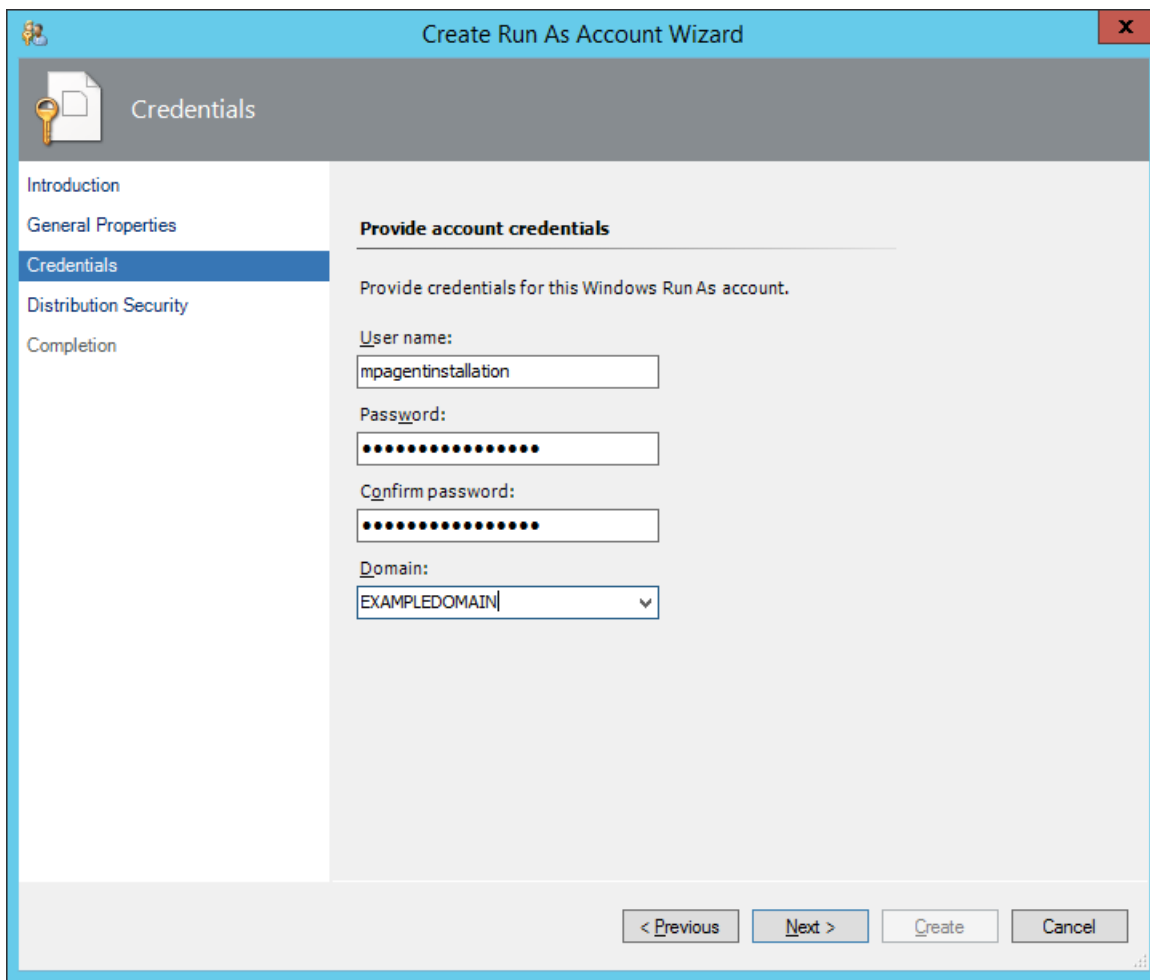
3. Using an operating system administrative tool, add the user account to the local *CitrixMPShareUsers* user group.
4. Launch the SCOM Operations console.
5. In the **Administration** view, in the left pane, expand **Run As Configuration**, and then click **Accounts**.
6. In the Tasks pane, expand **Actions**, and then click **Create Run As Account**.
7. In the Create Run As Account Wizard window, click **Next**.
8. In the **Run As account type** drop-down menu, leave the default selection (*Windows*).

Figure The General Properties page



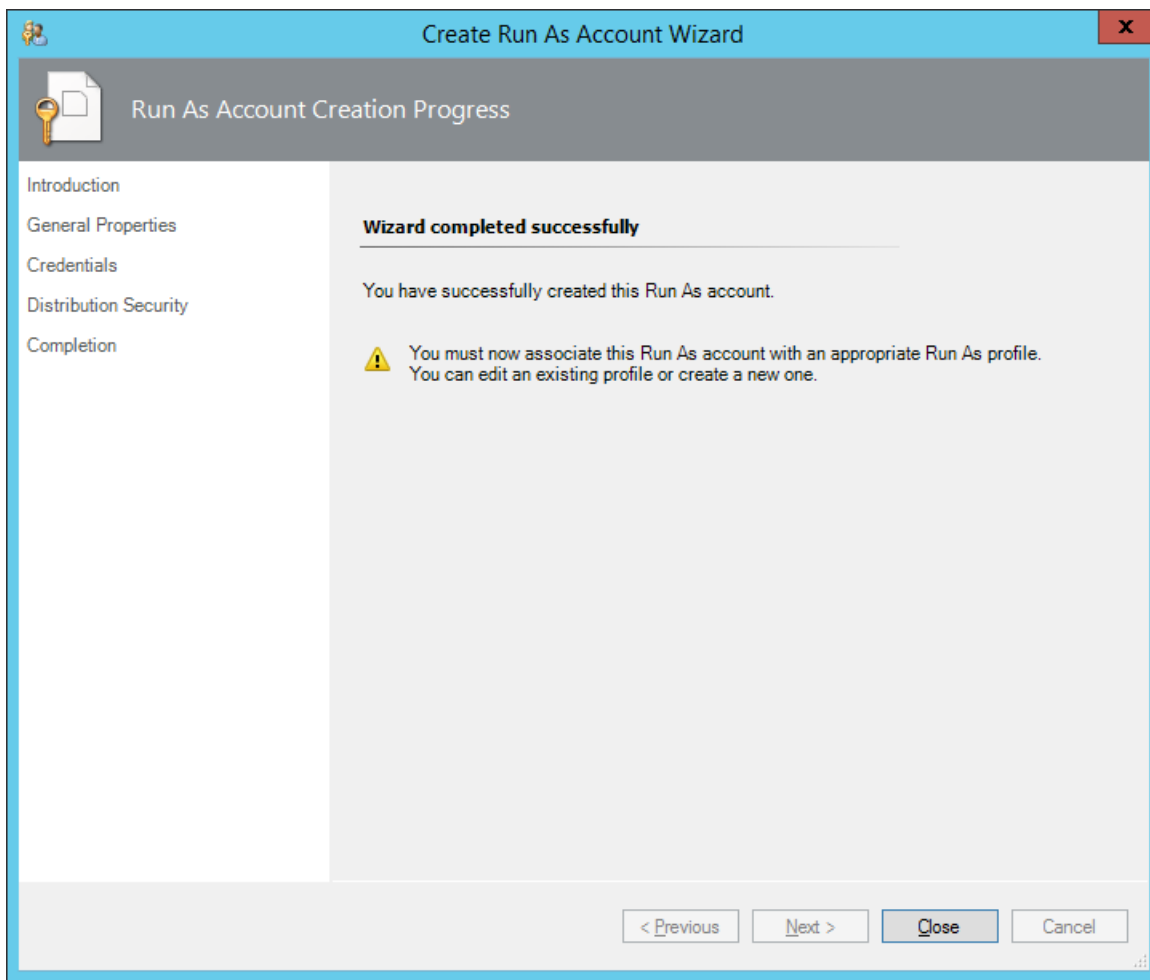
9. In the **Display name** text box, type a name that the SCOM Operations console will use to refer to the newly created SCOM user account. Click **Next**.
10. In the **User name** text box, type the user name of the operating system user account that you chose in step 2.

Figure The Credentials page



11. In the **Password** and **Confirm password** text boxes, type the valid password of the operating system user account.
12. In the **Domain** text box, update the value if needed. Click **Next**.
13. Depending on the effective security policy in your SCOM environment, select either the **Less secure** or **More secure** option.
Note: Selecting **More secure** requires manual steps to be performed in SCOM for each newly added managed computer.
14. Click **Create**.
15. After the message about successful account creation appears, click **Close**.

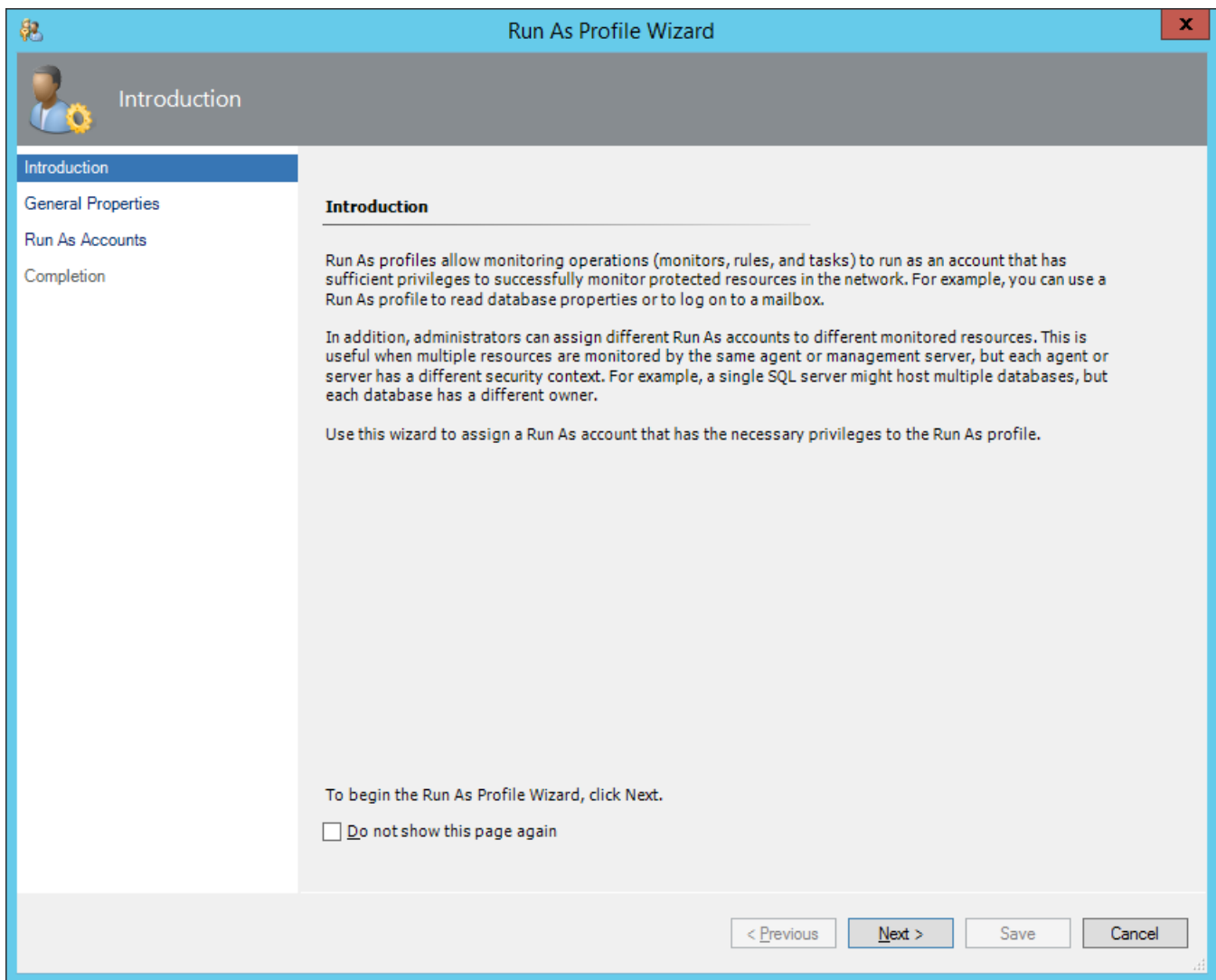
Figure The Completion page



16. In the left pane, under Run As Configuration, click **Profiles**.

17. In the Profiles list, double-click **Citrix Management Pack Network Share Account**.

Figure The Introduction page

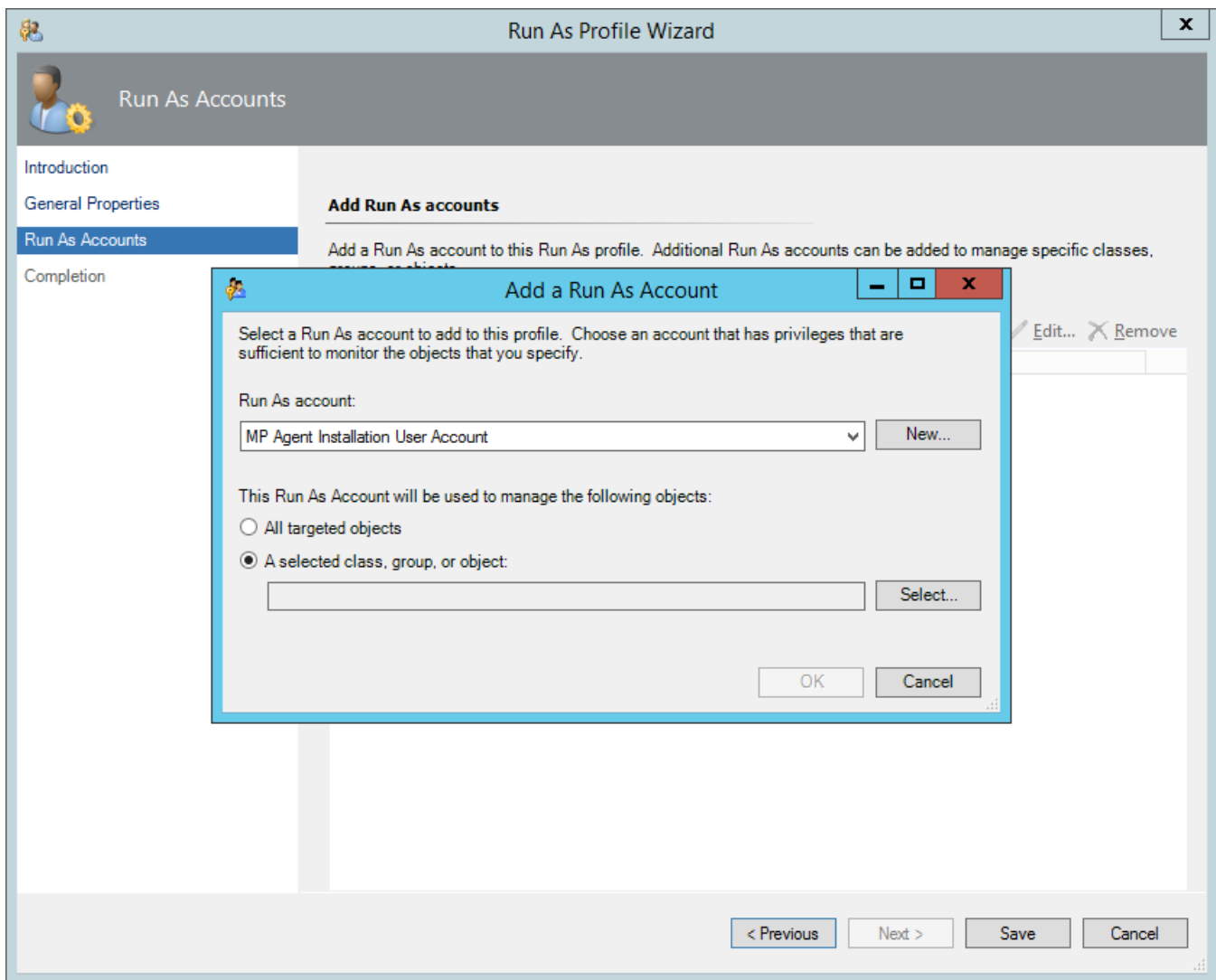


18. In the Run As Profile Wizard window, in the Introductory page, click **Next**. In the General Properties page, click **Next**.

19. In the Run As Accounts page, click **Add**.

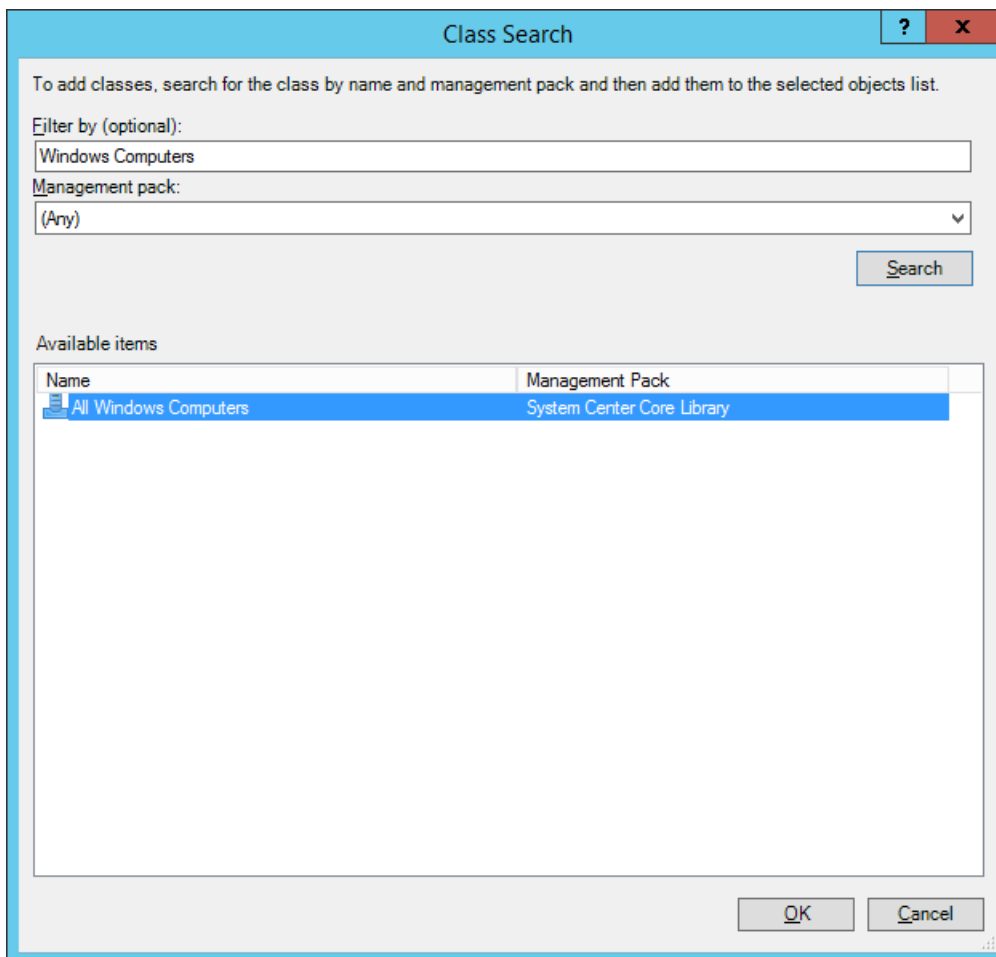
20. In the Add a Run As Account dialog box, in the Run as account list, select the newly created SCOM user account.

Figure The Add a Run As Account dialog box



21. Select the **A selected class, group, or object** option.
22. Click **Select** and then select **Class**.
23. In the Class Search dialog box, in the **Filter by (optional)** text box, type *Windows Computers*.
24. Click **Search**.
25. In the Available items list, select **All Windows Computers**.

Figure The Class Search dialog box



26. Click **OK** to close the Class Search dialog box.
27. Click **OK** to close the Add a Run As Account dialog box.
28. Click **Save** to update the profile. This may take a while.
29. Click **Close** to close the Run As Profile Wizard window.

Verifying the installation on the SCOM management server

To verify that the Citrix SCOM Management Pack for Provisioning Services installation on the management server is correct, do the following:

1. Log on to the management server.
2. Go to **Start > Control Panel** and click **Programs and Features** (actions of this step may differ on operating systems earlier than Windows Server 2016).
3. Check for the presence of the following entry in the Name column:
Citrix SCOM Management Pack for Provisioning Services
4. To check if the *CitrixMPShare* shared folder is correctly configured, open a Command Prompt window and run the following commands in sequence (their outputs in case of success are also shown):

Command:

```
net share / findstr -i CitrixMPShare
```

Command output:

```
CitrixMPShare  
    %ProgramData%\Citrix\CitrixMPShare
```

Command:

```
net use ||<ManagementServerHostName>\CitrixMPShare  
    /USER:<DomainName>\<UserName>
```

Command output:

```
The command completed successfully
```

Command:

```
dir ||<ManagementServerHostName>\CitrixMPShare
```

Command output:

```
<FolderContents>
```

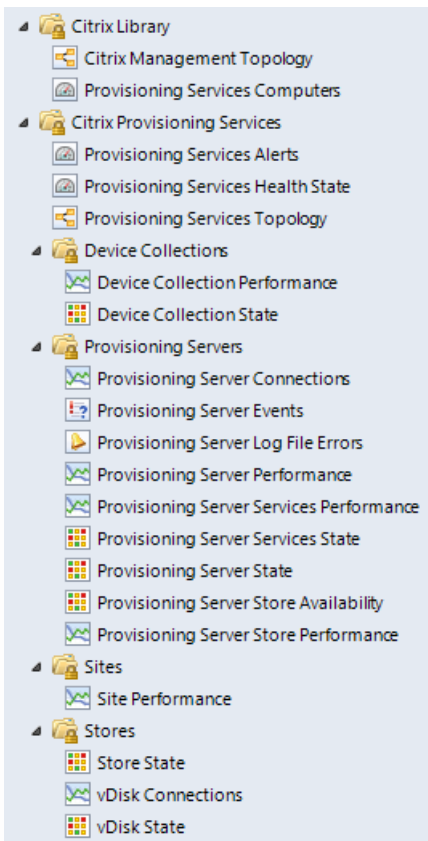
In these instances, *%ProgramData%* refers to the actual value of this operating system variable. *<ManagementServerHostName>* is the name of the SCOM management server. *<DomainName>* is the domain or computer name and *<UserName>* is the name of the user account that you chose in step 2 of the procedure documented in "Configuring access to the shared folder for agent installation." *<FolderContents>* is the list of the contents of the *CitrixMPShare* folder.

Note: The shared folder is vital for installation of the Citrix SCOM Management Pack for Provisioning Services agent and deployment of its configuration to the managed computers.

5. Launch the SCOM Operations console.

6. In the **Monitoring** view, expand the items in the left pane until they match the following figure.

Figure Elements of Citrix SCOM Management Pack for Provisioning Services, as seen in the SCOM Operations console



7. In the **Administration** view, expand **Administration > Management Packs** and click **Installed Management Packs** (the navigation pane structure may differ in SCOM versions earlier than 2016).
8. Verify the following management pack versions are listed in the results pane:

Citrix Management Pack for Provisioning Services	1.17.14.0
Citrix Management Pack for Provisioning Services Reports	1.17.14.0
Citrix Management Pack Library	1.0.18.0

Configuring SCOM agent to act as proxy on Provisioning Server computers

SCOM agent on each computer where Provisioning Server is installed must be configured to act as a proxy agent. This configuration enables the agent to relay or forward information from or about other computers and network devices to the SCOM management server.

You can either configure SCOM agent instances one by one or you can configure all applicable SCOM agent instances at

the same time. The latter scenario is particularly useful in large Provisioning Services environments.

To configure the SCOM agent instances one by one, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Administration** view, in the left pane, expand **Device Management**, and then click **Agent Managed**.
3. For each Provisioning Services (Provisioning Server) computer, follow the steps:
 - a. Right-click the host name, and select **Properties**.
 - b. Click the **Security** tab.
 - c. Select the **Allow this agent to act as proxy and discover managed objects on other computers** option.
 - d. Click **OK**.

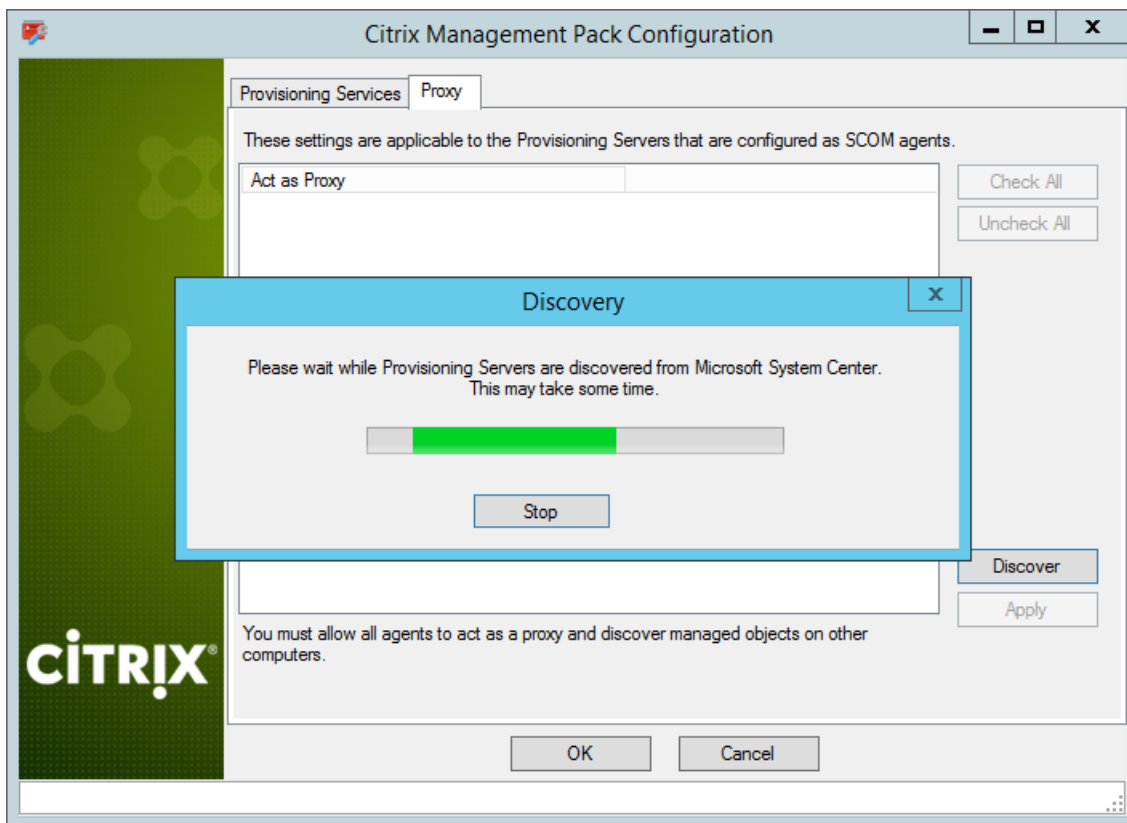
To configure all applicable SCOM agent instances (instances on all discovered Provisioning Server computers) at the same time, do the following:

1. Log on to the SCOM management server. Use a user account that has local administrative privileges.
2. Go to **Start > All apps > Citrix** (actions of this step may differ on operating systems earlier than Windows Server 2016).
3. Click **Provisioning Services MP Configuration**.
4. In the Citrix Management Pack Configuration window, click the **Proxy** tab.
5. Click **Discover** to invoke the discovery process. It will discover all computers that are listed in the Provisioning Services Computers list in the Monitoring view of the SCOM Operations console.

Note: Newly added agent-managed computers may not be immediately visible in the Provisioning Services Computers list in the SCOM Operations console. Allow some time for the list to get updated.

This discovery process may take a while.

Figure The Proxy tab of the Citrix Management Pack Configuration tool



6. Select the Provisioning Services computers or click **Check All** to select all of them. Click **Uncheck All** to clear the selection.
7. Click **Apply** to update the configuration in SCOM. This may take a while.
8. *Optional.* To cease a SCOM agent instance to act as a proxy agent, clear its entry in the Act as Proxy list, and click **Apply** to update the configuration in SCOM.
9. Click **OK** to close the window.

Providing information about Provisioning Services farm administrator account

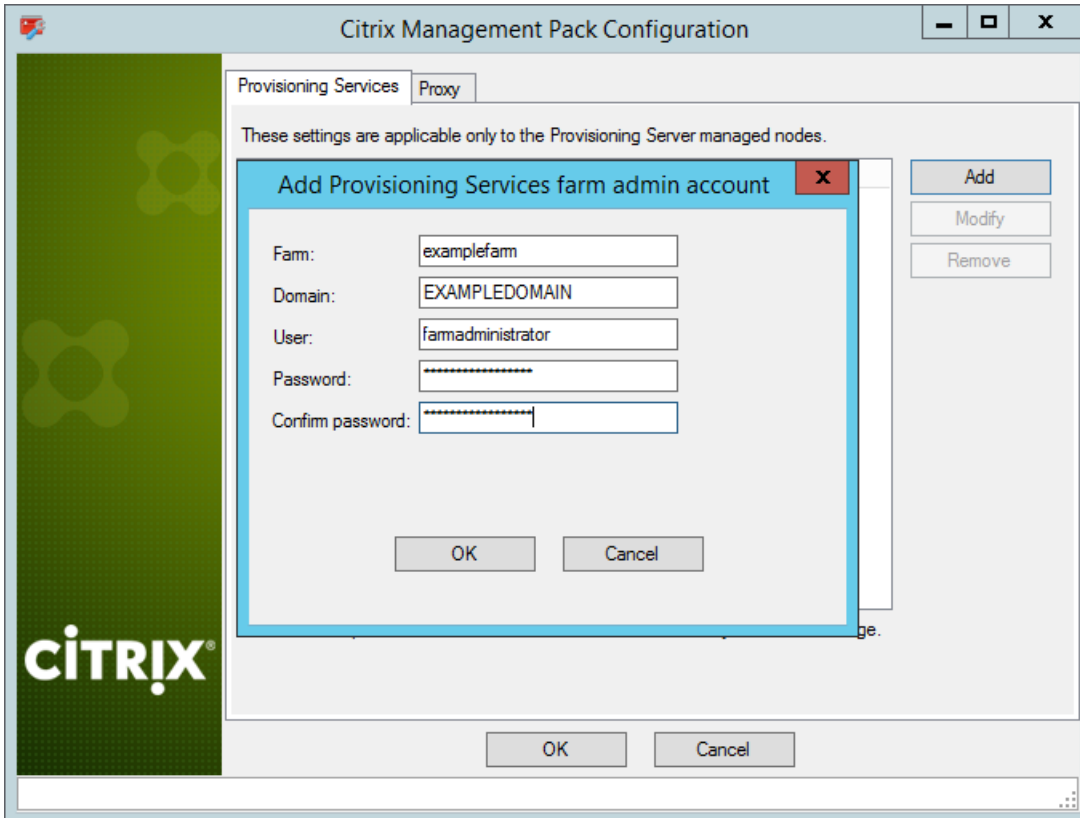
A farm administrator account must be provided to Citrix SCOM Management Pack for Provisioning Services for each Provisioning Services farm that you want to manage. This user account must be the local administrator of each Provisioning Services server and must have full access granted to the farm.

To provide the farm administrator accounts, do the following:

1. Log on to the management server. Use a user account that has local administrative privileges.
2. Go to **Start > All apps > Citrix** (actions of this step may differ on operating systems earlier than Windows Server 2016).
3. Click **Provisioning Services MP Configuration**.
4. In the Citrix Management Pack Configuration window, in the Provisioning Services tab, click **Add**.
5. In the Add Provisioning Services farm admin account dialog box, type the following data in the respective text boxes:
 - Farm name

- Properties of the farm administrator account:
 - Domain name
 - User name
 - Password

Figure The Add Provisioning Services farm admin account dialog box



6. Click **OK**.
7. Repeat steps 4 and 5 for each additional farm administrator account you want to set.
8. *Optional.* To modify the domain name, user name, or password of a farm administrator configuration, click **Modify**. In the Modify Provisioning Services farm admin account dialog box, modify the data as required, and then click **OK**.
9. *Optional.* To remove a farm administrator configuration, click **Remove** and then click **Yes**.
10. Click **OK** to apply the configuration changes and close the window.

Note: If you modify data for a Provisioning Services account where the Citrix SCOM Management Pack for Provisioning Service Agent is already installed on the Provisioning Services computers, run the *Update Configuration on Citrix MPPVS Agent* task from the SCOM Operations console to refresh the local configuration data

Installing the product on the Provisioning Services computers

On the Provisioning Services computers, only the Citrix SCOM Management Pack for Provisioning Services Agent must be

installed.

To install the Citrix SCOM Management Pack for Provisioning Services Agent on a Provisioning Services computer, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Monitoring** view, in the left pane, expand **Citrix Library**, and then click **Provisioning Services Computers**.
3. In the Provisioning Services Computers pane, select a Provisioning Services computer from the Provisioning Services Computers list.
4. In the Tasks pane, expand **Citrix MPPVS Agent Computer Role Tasks**, and then click **Install Citrix MPPVS Agent**.
5. In the Run Task - Install Citrix MPPVS Agent dialog box, adjust the task parameters as follows:
 - **UpgradeAgent**: This option, when set to *true*, causes uninstallation of the existing Citrix SCOM Management Pack for Provisioning Services Agent from the agent-managed computer before the current version is installed. Before such uninstallation, the SCOM agent must be put into maintenance mode.
Default value: *false*
 - **IgnorePrereqCheck**: You may not alter this option.
Default value: *false*
 - **Debug**: You may not alter this option.
Default value: *false*
 - **AgentInstallationSource**: This option defines location of the Management Pack agent installation package and its configuration files. Specify the value according to relationship between the agent-managed computer and the SCOM management server:
 - If SCOM agent on the agent-managed computer reports only to the management server where the Citrix SCOM Management Pack for XenApp and XenDesktop Management Pack is installed, leave the value empty. The location is automatically determined based on data retrieved from the agentmanaged computer. In most cases, the retrieved location host name matches the host name of the management server where the installation task is invoked.
 - If the agent-managed computer is managed by some other management server or the computer hosts a multi-homed SCOM agent instance, specify the host name of the management server where the Citrix SCOM Management Pack for XenApp and XenDesktop Management Pack is installed.
 - If the agent-managed computer does not have access to the *CitrixMPShare* shared folder on the management server, specify the alternative location of the Management Pack agent installation package and its agent configuration files in the UNC format. A prerequisite is that these files are copied from the *CitrixMPShare* shared folder to a location the agent-managed computer has access to.
Default value: (empty)
 - **AgentInstallationDestination**: This option defines the Management Pack agent's program installation folder on the agent-managed computer. If no value is specified, the Management Pack agent is installed to the *%ProgramFiles%\Citrix\Provisioning Services MP Agent* folder.
Default value: (empty)
6. Click **Run** to invoke the installation process.
7. Observe the output the task generates. If the task reports no errors, the installation on the Provisioning Services computer is correct.

Tip: The task initially performs a prerequisite check. If any of the installation prerequisites are not fulfilled, the process is interrupted before the actual installation begins. In this case, invoke the **Check Installation Prerequisites for Citrix MPPVS Agent** task to pinpoint the problematic prerequisite.

Tip: The Agent installation task can be run for multiple selected Provisioning Services computers.

Verifying the installation and configuration on the Provisioning Services computers

To verify that the Citrix SCOM Management Pack for Provisioning Services Agent installation and configuration on a Provisioning Services computer are correct, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Monitoring** view, in the left pane, expand **Citrix Library**, and then click **Provisioning Services Computers**.
3. In the Provisioning Services Computers pane, select the Provisioning Services computer (on which the Citrix SCOM Management Pack for Provisioning Service Agent was just installed) from the Provisioning Services Computers list.
4. In the Tasks pane, expand **Actions**, and then click **Check Requirements and Configuration for Citrix MPPVS Agent**.
5. Observe the output the task generates. If all checks are denoted successful, the installation and configuration on the Provisioning Services computer are correct.

Uninstall

This chapter contains instructions that you must follow to effectively uninstall the Citrix SCOM Management Pack for Provisioning Service. Perform all procedures in the documented order of precedence.

Uninstalling the product from the Provisioning Services computers

To uninstall the Citrix SCOM Management Pack for Provisioning Service Agent from a Provisioning Services computer, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Monitoring** view, expand **Citrix Library**, and then click **Provisioning Services Computers**.
3. In the Provisioning Services Computers pane, select a Provisioning Services computer from the Provisioning Services Computers list.
4. In the Tasks pane, expand **Actions**, and then click **Uninstall Citrix MPPVS Agent**.
5. In the Run Task - Uninstall Citrix MPPVS Agent dialog box, click **Run** to invoke the uninstallation process.
6. Repeat steps 3 to 5 for each additional Provisioning Services computer.

Tip: The Agent uninstallation task can be run for multiple selected Provisioning Services computers.

Removing dependent management packs (customizations)

Important: Perform this procedure only if you have customized the management packs included in the product.

To remove the customizations that you made to the management packs included in the Citrix SCOM Management Pack for Provisioning Service, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Administration** view, expand **Administration > Management Packs** and click **Installed Management Packs** (the navigation pane structure may differ in SCOM versions earlier than 2016).
3. In the results pane, locate the management packs that depend on the management packs included in Citrix SCOM Management Pack for Provisioning Service.
4. For each such dependent management pack (except for *Microsoft.SystemCenter.SecureReferenceOverride*), follow the steps:
 - a. Right-click it and then click **Delete**.
 - b. On the message stating that deleting the management pack might affect the scoping of some user roles, click **Yes**.

Removing included management packs

To remove the management packs included in the Citrix SCOM Management Pack for Provisioning Service, do the following:

1. Launch the SCOM Operations console and connect to the management server.
2. In the **Administration** view, expand **Administration > Management Packs** and click **Installed Management Packs** (the navigation pane structure may differ in SCOM versions earlier than 2016).
3. Remove references to the included management packs from the *Microsoft.SystemCenter.SecureReferenceOverride* management pack. To do this perform the following steps:
 - a. Identify which included management packs are referenced. In the **Administration > Management Packs** context of the SCOM Operations console, right-click **Microsoft.SystemCenter.SecureReferenceOverride** and select **Properties**. In the dialog box, click the **Dependencies** tab.
 - b. For each such referenced management pack, find out its ID. Right-click the referenced management pack. In the dialog box, take note of the value in the ID text box on the General tab.
 - c. Export the *Microsoft.SystemCenter.SecureReferenceOverride* management pack.
 - d. Make a copy of the file you exported the management pack to.
 - e. Edit the originally exported file: use the IDs to find and remove all dependencies to the management packs from the *Manifest > References* context (the *Reference* elements) and the *Monitoring > Overrides* context (the *SecureReferenceOverride* elements), and then save the changes.
Tip: For better tracking, increase the management pack version by adjusting the value of the *Version* element within the *Identity* element.
 - f. Import back the altered *Microsoft.SystemCenter.SecureReferenceOverride* management pack from the modified file.
4. In the results pane, right-click **Citrix Management Pack for Provisioning Services Reports**, and then select **Delete**.
5. On the message stating that deleting the management pack might affect the scoping of some user roles, click **Yes**.
6. Repeat steps 4 and 5 with **Citrix Management Pack for Provisioning Services**.
7. Check if other Citrix SCOM Management Pack products are installed on the management server. If none of them is

installed, repeat steps 4 and 5 with **Citrix Management Pack Library**.

Uninstalling the product from the SCOM management server

To uninstall the Citrix SCOM Management Pack for Provisioning Service from the SCOM management server, do the following:

1. Log on to the management server. Use a user account that has local administrative privileges and SCOM administrative privileges.
2. Make sure no product folders or files are in use by any user.
3. Go to **Start > Control Panel** and click **Programs and Features** (actions of this step may differ on operating systems earlier than Windows Server 2016).
4. Right-click **Citrix SCOM Management Pack for Provisioning Services** and select **Uninstall**. Wait for the Setup Wizard to appear.
5. In the Welcome page of the Setup Wizard, click **Uninstall**.
6. In the Uninstalling the product page, the Setup Wizard reports the uninstallation progress.
7. In the Completion page of the Setup Wizard, click **Finish**.
8. Delete the *%ProgramData%\Citrix\CitrixMPShare\Provisioning Services MP* folder.
Caution This action permanently deletes the Agent configuration data. You will be unable to reuse it at a later time.
9. Check if other Citrix SCOM Management Pack products are installed on the management server. If none of them is installed, follow the steps:
 - a. Stop sharing the *CitrixMPShare* shared folder.
 - b. Delete the *%ProgramData%\Citrix\CitrixMPShare* folder.
 - c. Using an operating system administrative tool, delete the local *CitrixMPShareUsers* user group.

Upgrading

Upgrading from version 1.12

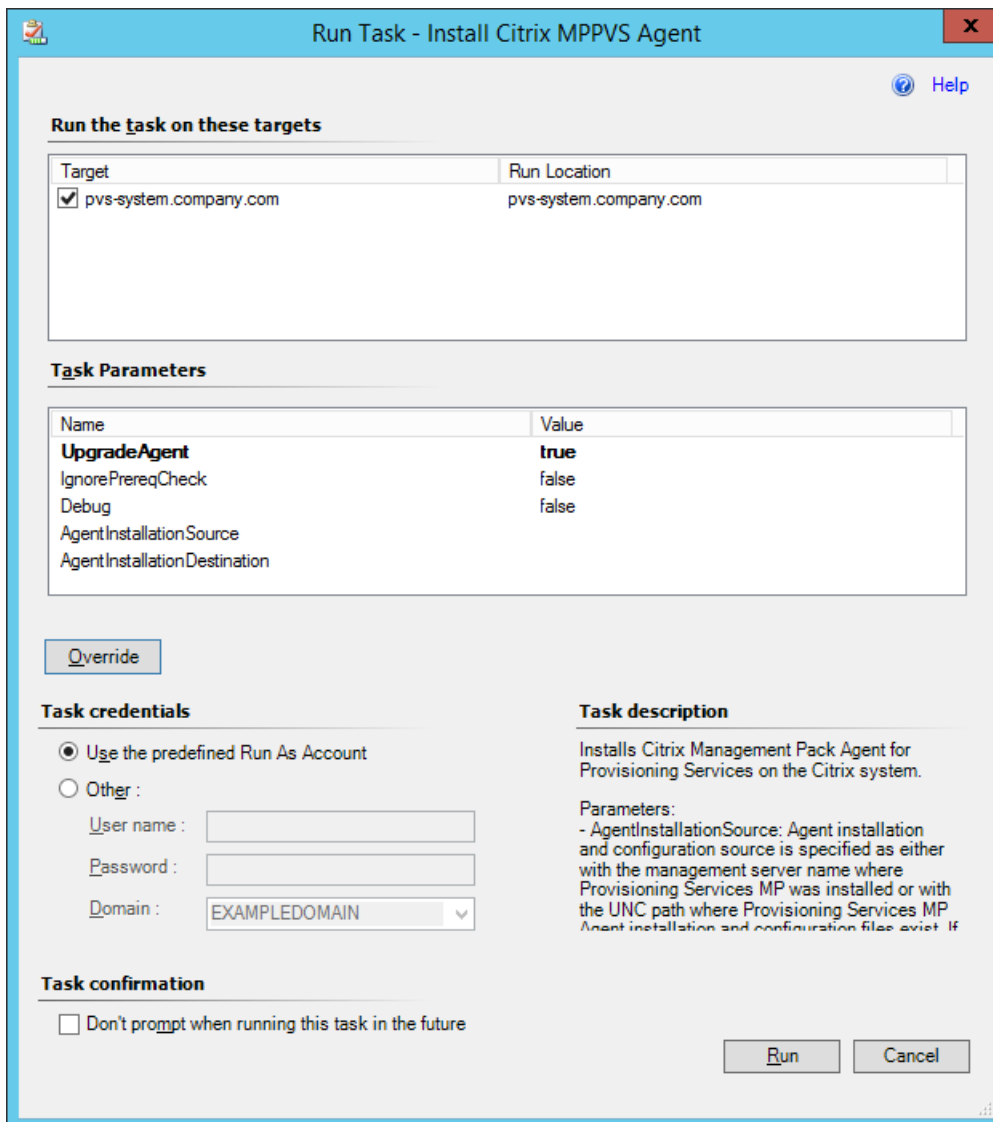
To upgrade the Citrix SCOM Management Pack for Provisioning Service from version 1.12, do the following:

1. Prepare your environment for installation of the new product version. For information, see [Preparing for the installation](#).
2. Uninstall the product from the SCOM management server computer. For instructions, see [Uninstalling the product from the SCOM management server](#).
Note: Uninstallation process preserves local configuration data.
3. Install the product (its server-side part) on the SCOM management server. For instructions, see [Installing the product on the SCOM management server](#).
4. Verify the installation of the product (its server-side part) on the SCOM management server. For instructions, see [Verifying the installation on the SCOM management server](#).
5. On the SCOM management server, move the *mppvs_config.dat* file from the *%ProgramData%\ComTrade\MPSHare\ProvisioningServices MP* directory to the *%ProgramData%\Citrix\CitrixMPShare\ProvisioningServices MP* directory.

6. Configure access to the shared folder for agent installation. For instructions, see [Configuring access to the shared folder for agent installation](#).

7. Install the product (its agent-side part) on the Provisioning Services computers. For instructions, see [Installing the product on the Provisioning Services computers](#).

Important: In the Run Task - Install Citrix MPPVS Agent dialog box, set the **UpgradeAgent** task parameter to *true*.



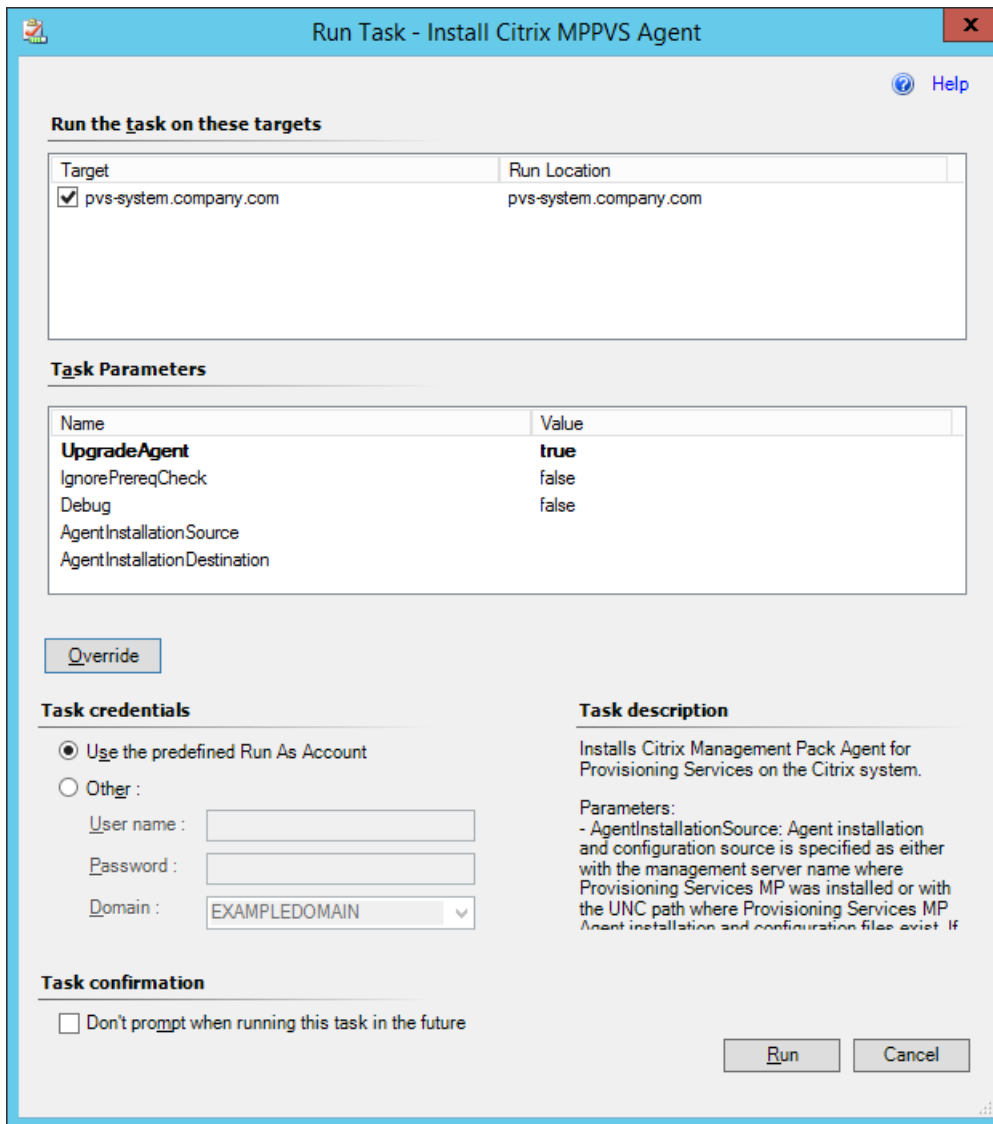
6. Verify the installation and configuration of the product (its agent-side part) on the Provisioning Services computers. For instructions, see [Verifying the installation and configuration on the Provisioning Services computers](#).

Upgrading from versions other than 1.12

To upgrade the Citrix SCOM Management Pack for Provisioning Service from versions other than 1.12, do the following:

1. Prepare your environment for installation of the new product version. For information, see [Preparing for the installation](#).
2. Uninstall the product from the SCOM management server computer. For instructions, see [Uninstalling the product from the SCOM management server](#).

3. Install the product (its server-side part) on the SCOM management server. For instructions, see [Installing the product on the SCOM management server](#).
 4. Verify the installation of the product (its server-side part) on the SCOM management server. For instructions, see [Verifying the installation on the SCOM management server](#).
 5. Install the product (its agent-side part) on the Provisioning Services computers. For instructions, see [Installing the product on the Provisioning Services computers](#).
- Important:** In the Run Task - Install Citrix MPPVS Agent dialog box, set the **UpgradeAgent** task parameter to *true*.



6. Verify the installation and configuration of the product (its agent-side part) on the Provisioning Services computers. For instructions, see [Verifying the installation and configuration on the Provisioning Services computers](#).

Optimize

Aug 14, 2017

For a general overview of Citrix Provisioning Services, see [Provisioning Services Product Overview](#) in the Citrix Provisioning Services documentation.

Citrix SCOM Management Pack for Provisioning Services is able to actively monitor the availability of Provisioning Servers and their dependent components. For this purpose, a Provisioning Services farm administrator account is required by the Citrix SCOM Management Pack for Provisioning Services to be able to log on to the farm.

With the Citrix SCOM Management Pack for Provisioning Services, you can monitor:

- Provisioning Server availability
- All Provisioning Server operating system services
- Local and shared stores accessibility
- Free disk space and write cache size on the stores
- Provisioning Server log files and entries in the operating system event log
- Provisioning Server resource consumption
- Target device activity on vDisks and device collections
- vDisk availability

Citrix SCOM Management Pack for Provisioning Services also collects data, gathered from Provisioning Services environment, such as:

- CPU and memory consumption on Provisioning Server host computers
- Network traffic on Provisioning Servers
- Number of all and active devices, and device utilization on device collections
- Number of all and active devices, and device utilization on site
- Number of connected target devices on Provisioning Servers
- Number of connected target devices on vDisks
- Store free space and free space utilization (from each Provisioning Server perspective)
- Store write cache size (from each Provisioning Server perspective)

All collected data is available in Performance views for short periods of time (depends on the effective settings for SCOM database grooming), and also through reports for extended periods of time.

See the [Reference Guide](#) for a complete list of monitors and rules available in Citrix SCOM Management Pack for Provisioning Services.

Manually importing included management packs into SCOM

For general instructions about how to import management packs into SCOM, see the [How to Import an Operations Manager Management Pack](#) webpage on the Microsoft TechNet website.

To import the sealed management packs for Provisioning Services manually, do the following:

1. Log on to the management server.
2. Launch the SCOM Operations console.
3. In the Administration view, click **Management Packs**.
4. In the Tasks pane, expand **Actions**, and then click **Import Management Packs**.
5. In the Import Management Packs dialog box, click **Add**, and then select **Add from disk**.
6. In the Online Catalog Connection, click **No**.
7. In the Select Management Packs to import dialog box, browse to the folder that contains the following management pack files, select those files, and then click **Open**.
 - *Comtrade.Citrix.Library.mp*
 - *Comtrade.Citrix.ProvisioningServices.mp*
 - *Comtrade.Citrix.ProvisioningServices.Reports.mp*
8. Click **Install**.

Customizing sealed management packs

Customization of the sealed management packs that the Citrix SCOM Management Pack for Provisioning Services provides is similar to the default SCOM management pack customization. For details, see the Microsoft TechNet website:

- For general information about customization of management packs, see the [Customizing Management Packs](#) webpage.
- For instructions on how to customize a management pack, see the [Create a New Management Pack for Customizations](#) webpage.