



Lenovo Configuration Pack for Microsoft System Center Configuration Manager User's Guide

Version 6.0



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Note

Before using this information and the product it supports, read the information in "Notices" on page 101.

Edition notice

This edition applies to version 6.0 of the Lenovo Configuration Pack for Microsoft System Center Configuration Manager User's Guide and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this publication

This guide provides instructions for installing Lenovo Configuration Pack for Microsoft System Center Configuration Manager and using it to author and manage Lenovo configuration data in your environment.

Conventions and terminology

Notices used in this guide

The following notices are designed to highlight key information:

Note: These notices provide important tips, guidance, or advice.

Important:

These notices provide information or advice that might help you avoid inconvenient or difficult situations.

Attention:

These notices indicate possible damage to programs, devices, or data. An attention notice appears before the instruction or situation in which damage can occur.

Terminology used in this guide

The following list describes some of the terms, acronyms, and/or abbreviations used in this document.

ASU Lenovo Advanced Settings Utility

Configuration Item

A grouping of Setting Collections defined and managed by the Lenovo Configuration Pack.

DCM Desired Configuration Management

DCM Configuration Baseline

A Configuration Baseline composed of other configuration items. The baseline can be assigned to the SCCM client collection. You can evaluate these baselines on the endpoint.

DCM configuration item

Refers to the fundamental structural unit of a Desired Configuration Management system.

DCM configuration setting

A configuration setting that is composed of other configuration settings. You can define the evaluation condition and severity in each configuration setting.

Digest Schema

In Desired Configuration Management (DCM), the digest definition XML Schema Definition (XSD) defines the DCM documents (configuration items). This includes the constraints on the elements, attributes that can appear and their relationship to each other, and what types of data can be in them. The Lenovo Configuration Pack XML file must align with the digest schema standard that can be imported into the DCM server.

Lenovo Configuration Capture

A tool that captures IMM/uEFI/uEFI (Romley Platform) settings from an Lenovo server, and exports the captured settings to an Lenovo System Configuration Description.

Lenovo configuration data

Lenovo System Configuration Item configuration items, Lenovo System Setting Collections and Lenovo System Settings are collectively called Lenovo configuration data.

Lenovo Configuration Pack

The Lenovo Configuration Pack is a .cab file that contains configuration items and baselines. You can import configuration items and baselines by importing the Lenovo Configuration Pack into the DCM server.

Lenovo Configuration Pack Editor

An editor that can create and edit Lenovo configuration items and Setting Collections, and export Lenovo configuration data to an Lenovo Configuration Description.

Lenovo System Configuration Description

An XML file that contains Lenovo configuration items and Setting Collections.

Lenovo System Configuration Item

A configuration item that is composed of other Lenovo Setting Collections.

Lenovo System Configuration Setting

One Lenovo configuration setting defines one property of IMM/uEFI and its expected value, and returns an error when the property is not compliant with the expected value.

Lenovo System Configuration Setting Collection

A setting collection that contains one or more Lenovo System Configuration Settings. In this release, a collection has a firmware type of IMM or uEFI.

SCCM

Microsoft System Center Configuration Manager

Information resources

You can find additional information about Lenovo Configuration Pack for Microsoft System Center Configuration Manager on the World Wide Web.

PDF files

You can view or print documentation that is available in Portable Document Format (PDF).

Downloading Adobe Acrobat Reader

You need Adobe Acrobat Reader to view or print these PDF files. You can download a copy from the Adobe Reader website.

Viewing and printing PDF files

You can view or print any of the respective PDF files located on the Lenovo System x Integration Offerings for Microsoft Systems Management Solutions portal website. Please click the link provided to locate the individual product pages for each publication.

Saving PDF files

To save a PDF file, complete the following steps:

1. Right-click the link to the PDF in your browser.
2. Perform one of the following tasks.

Web browser	Command
For Internet Explorer	Click Save Target As .
For Netscape Navigator or Mozilla	Click Save Link As .

3. Navigate to the directory in which you want to save the PDF file.
4. Click **Save**.

World Wide Web resources

The following web pages provide resources for understanding, using, and troubleshooting IBM® System x, Lenovo BladeCenter® blade servers, and systems-management tools.

System Management with Lenovo XClarity Solution

This website provides an overview of Lenovo XClarity solution which integrates into System x M5 and M6, as well as Flex System to provide system management capability.

Lenovo XClarity Integrator for Microsoft System Center

Here you can locate the latest downloads for Lenovo Configuration Pack for Microsoft System Center Configuration Manager.

IBM Support Portal

Locate support for Lenovo hardware and systems-management software.

IBM ServerProven® pages

IBM ServerProven: Compatibility for System x hardware, applications, and middleware pages

Lenovo ServerProven: Compatibility for BladeCenter products pages

Obtain information about hardware compatibility with IBM System x, Lenovo BladeCenter, and IBM IntelliStation® hardware.

TechNet Library: Configuration Manager 2007 page

Locate support for the System Center Configuration Manager.

Chapter 1. Introduction to Lenovo Configuration Pack for Microsoft System Center Configuration Manager

The topics in this section provide an overview of Lenovo Configuration Pack v6.0.

Overview

Lenovo Configuration Pack for Microsoft System Center Configuration Manager provides the following support:

Trial license support

Trial license support is automatically activated if no product license is activated when this product is installed. To be sure that you receive the full length of the trial license support, ensure that your system time is correct. After the trial license expires, you must activate the product license or the premium features that are disabled. To obtain the product license, contact your local Lenovo Sales representative or Business Partner.

Free features

This release includes the following features:

Capture IMM/uEFI/uEFI (Romley Platform) settings

Lenovo Configuration Capture can capture IMM/uEFI/uEFI (Romley Platform) settings from an Lenovo server, and export the captured settings to an Lenovo system configuration description file. The exported configuration description file can then be imported into any Lenovo Configuration Pack Editor.

Premium features

The following features are fee-based functions that are enabled with a valid product license of v4.0 or later:

Export an Lenovo system configuration item to an SCCM Console:

This feature provides the ability to import configuration items to an SCCM Console and assign them to SCCM client collections.

The following features are fee-based functions that are enabled with a valid product license of v3.0 or later:

Author Lenovo system configuration data:

Lenovo system configuration data is composed of Lenovo configuration items, Lenovo configuration Setting Collections, and Lenovo configuration settings. In this release, the Lenovo system configuration data scope is IMM/uEFI settings.

Support IMM/uEFI common settings:

Lenovo Configuration Pack Editor supports some common settings of IMM/uEFI that can help you author Lenovo system configuration setting.

Export Lenovo system configuration data to an Lenovo Configuration Pack:

Lenovo Configuration Pack contains configuration items and Setting Collections in a .cab file that are determined by DCM standards. Lenovo Configuration Pack can be imported into a DCM server.

Export Lenovo system configuration data to a configuration description:

This feature provides the ability to share and edit configuration data exported to a configuration description XML file. The configuration description file can contain one or more Lenovo configuration items and Setting Collections.

Import Lenovo system configuration description:

The configuration description XML file can be imported into Lenovo Configuration Pack Editor.

How Lenovo Configuration Pack for Microsoft System Center Configuration Manager supports Lenovo systems

Lenovo Configuration Pack for Microsoft System Center Configuration Manager provides you with the ability to check for IMM/uEFI settings on an Lenovo system. You can use the Lenovo Configuration Pack Editor to create settings for validation on an endpoint.

Lenovo configuration data is exported by Lenovo Configuration Pack Editor to a Configuration Pack (.cab) file. The .cab file is then imported to System Center Configuration Manager (SCCM), where it can be utilized by the Desired Configuration Management feature.

Administrators can assign configuration data to specific collections in SCCM. Configuration data includes Visual Basic Script, which invokes the ASU.exe tool to validate an endpoint's compliance.

Advanced Settings Utility (ASU)

You can use the Lenovo Advanced Settings Utility (ASU) to modify firmware settings from a command line on various operating-system platforms, such as Red Hat Enterprise Linux, Solaris Unix, Microsoft Windows, and WinPE.

ASU supports BIOS code, Remote Supervisor Adapter and Remote Supervisor Adapter II firmware, Baseboard Management Controller firmware, Integrated Management Module and more.

Configuration Pack configuration data does not include ASU.exe. To use Lenovo Configuration Pack for Microsoft System Center Configuration Manager with ASU (v3.60 or a later version) on an Lenovo system endpoint, complete these steps:

1. Copy the ASU.exe file (for 32-bit OS) or ASU64.exe file (for 64-bit OS) located in the Lenovo_Support\ASU\ system directory folder. For example, C:\Lenovo_Support\ASU\asu.exe and C:\Lenovo_Support\ASU\asu64.exe.
2. Manually record the location of ASU.exe in the registry by updating the *Location* string key to: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Lenovo\ASU\.

For more information about ASU, see Advanced Settings Utility (ASU) for Lenovo x86 servers support portal.

Chapter 2. Installing the Lenovo Configuration Pack v6.0

The following procedure describes how to install the Configuration Pack.

Procedure

1. Double click the Lenovo Configuration Pack v6.0 installer (.exe file). The welcome page for Lenovo Configuration Pack opens.

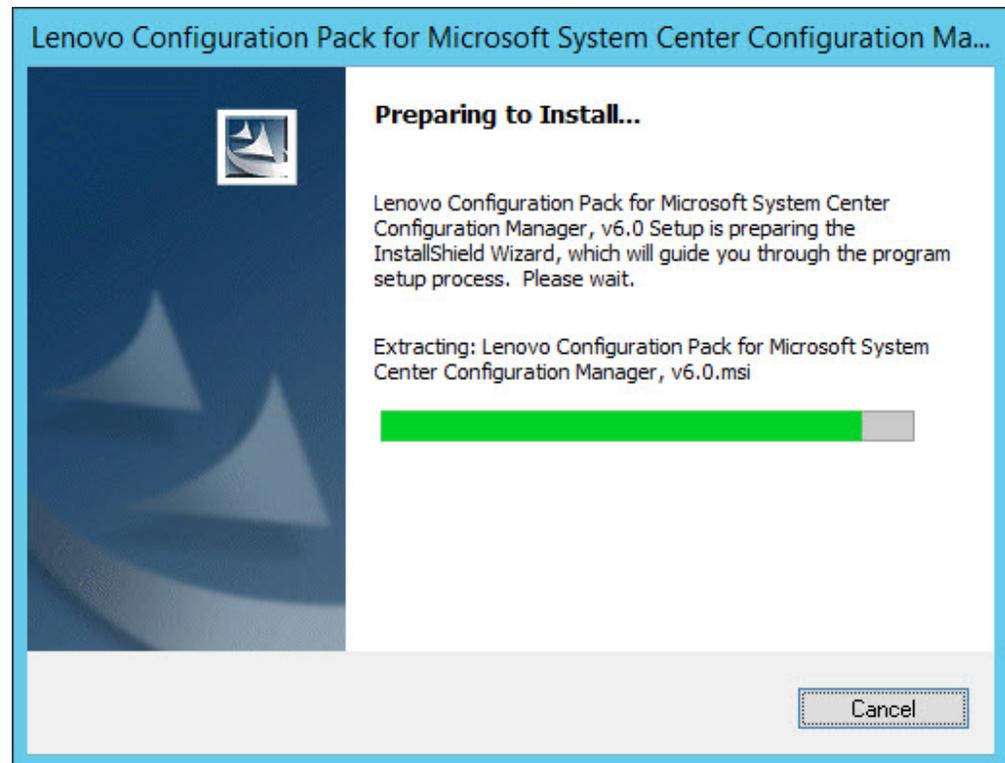


Figure 1. InstallShield Wizard welcome page

2. Click **Next** to proceed to the License Agreement page.

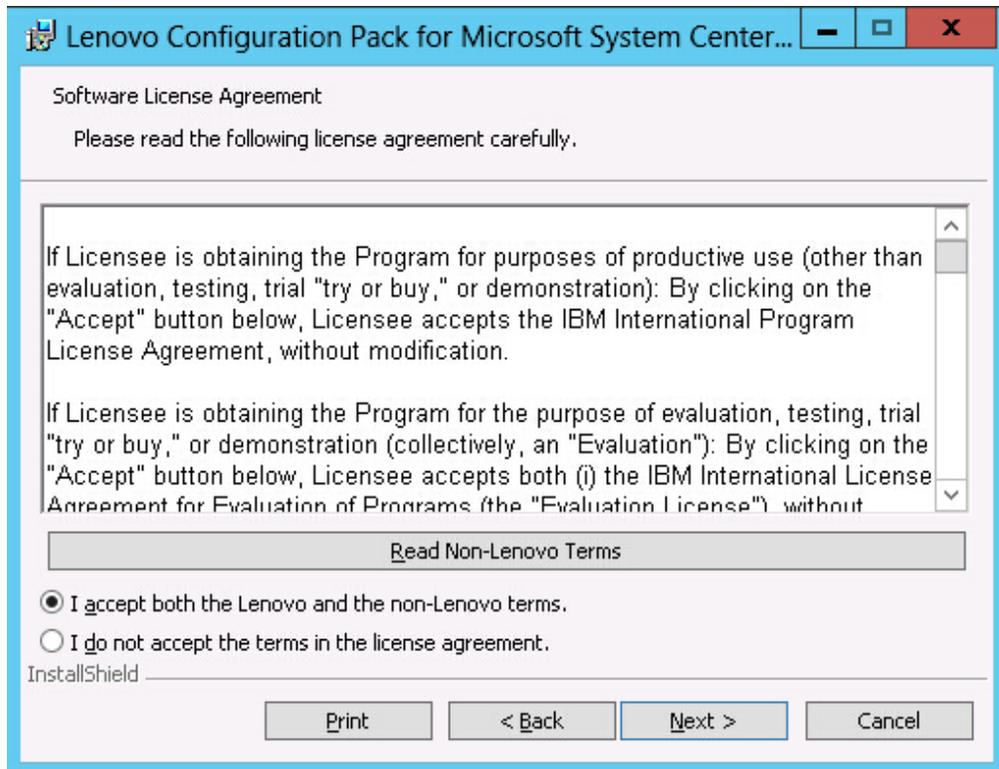


Figure 2. Software License Agreement

3. Click **I accept both the Lenovo and non- Lenovo terms** to accept the license agreement.
4. Click **Next**. If no product license is being activated, the Trial Version page opens; otherwise, the Destination Folder page opens.
5. On the Trial Version page, you can click **Contact Lenovo** to obtain a valid product license or click **Next** to proceed to the Destination Folder page.

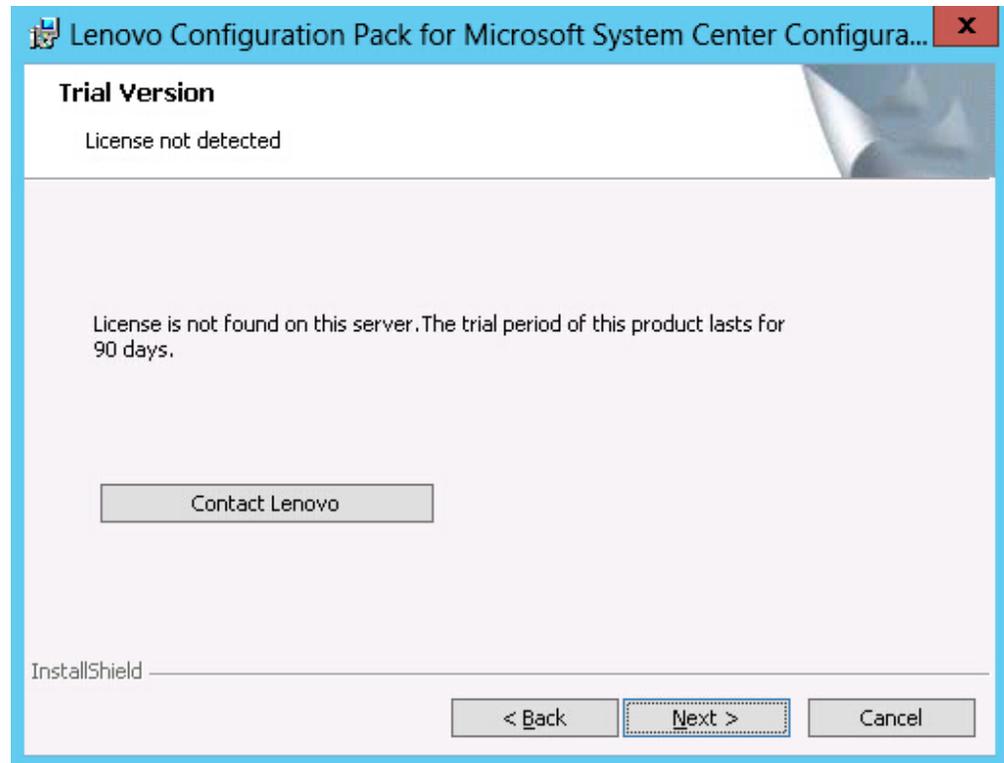


Figure 3. Trial Version page

6. On the Destination Folder page, to change the Lenovo Configuration Pack installation directory, click **Change**.

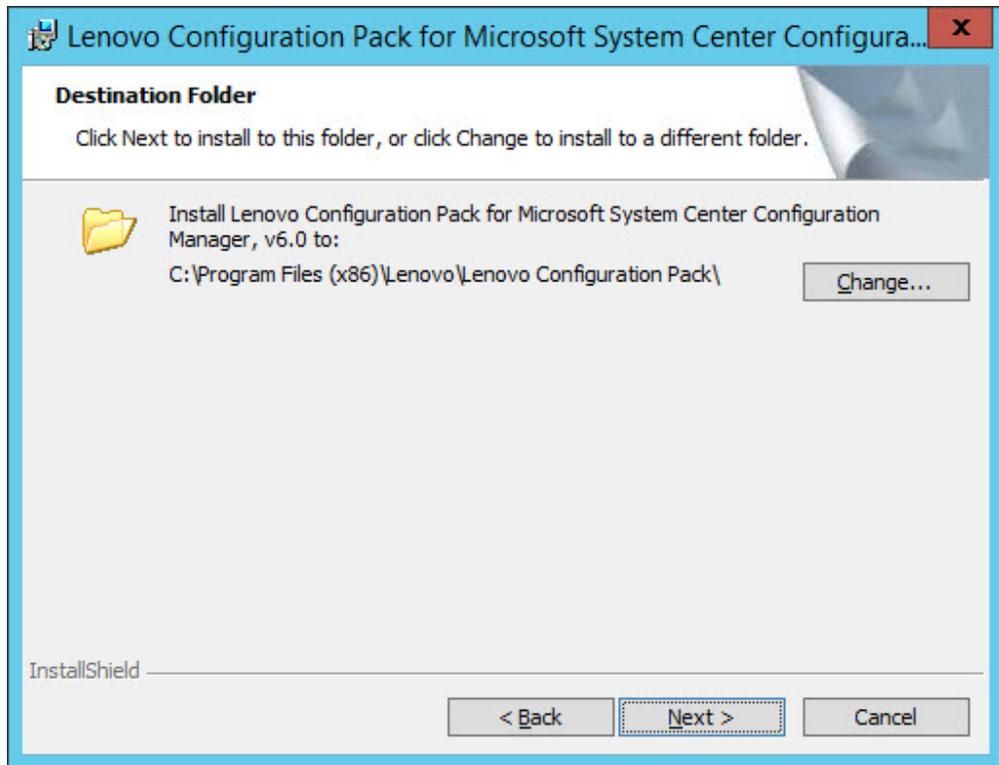


Figure 4. Destination Folder page

7. Click **Next** to proceed to the Ready To Install the Program page.

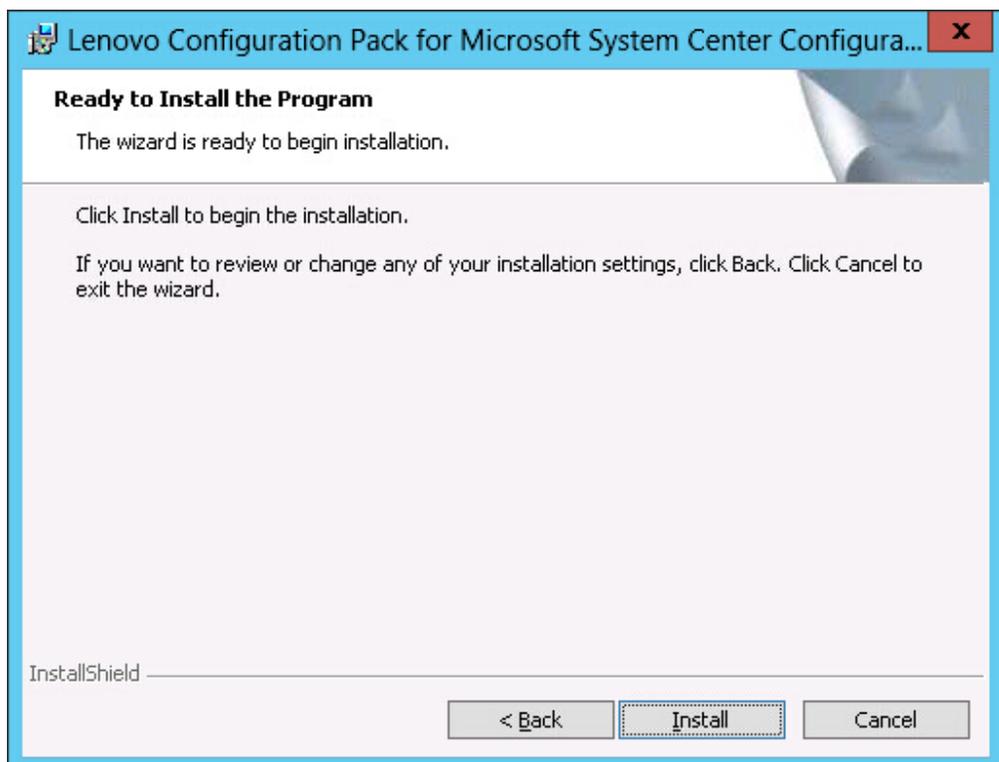


Figure 5. Ready to Install the Program page

8. Click **Install** to start the installation process.

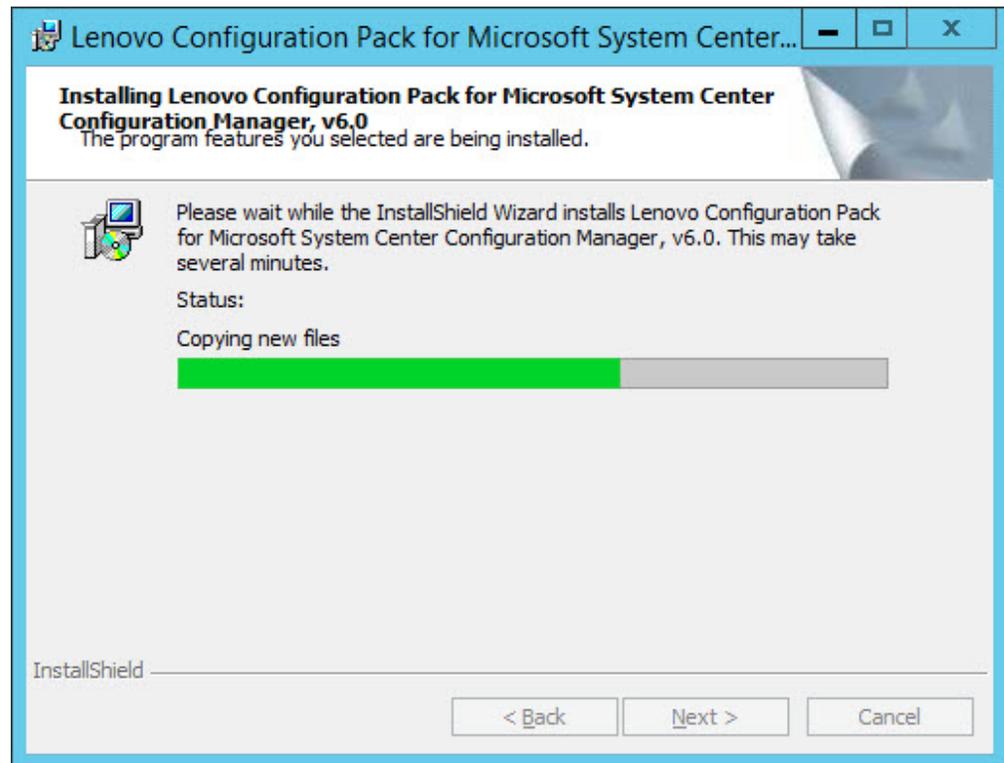


Figure 6. Installation status page

9. Click **Finish** to complete the installation.

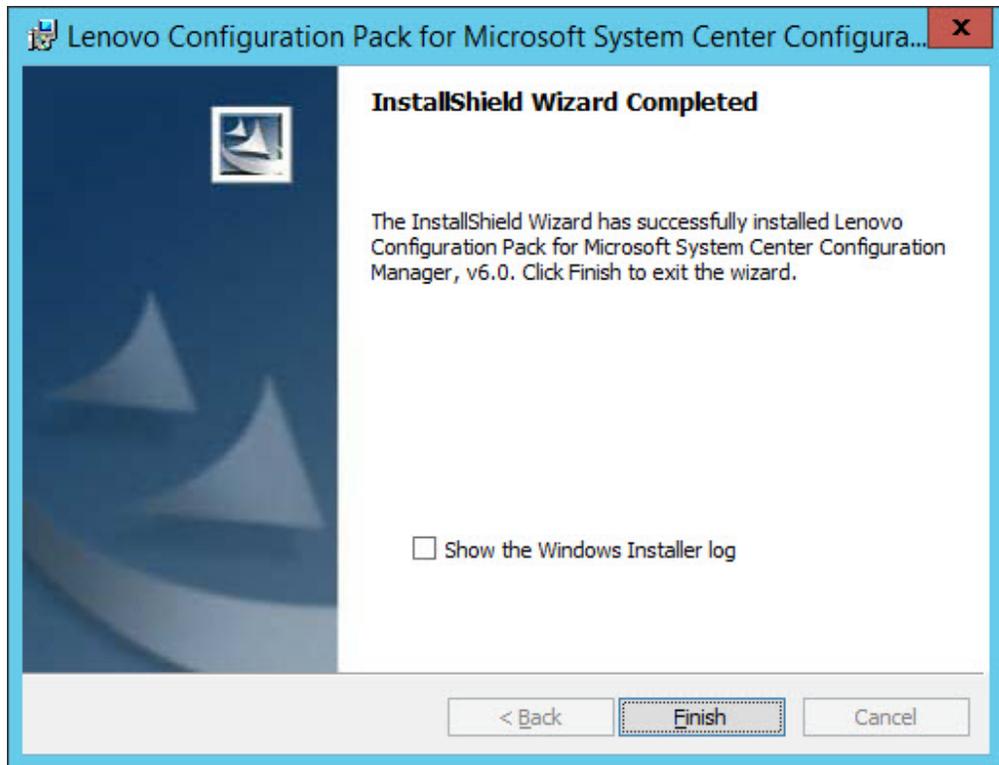


Figure 7. InstallShield Wizard Completed page

Uninstalling Lenovo Configuration Pack

There are four methods for uninstalling Lenovo Configuration Pack.

Procedure

- This is the recommended method. Start the Lenovo Configuration Pack installer program by double clicking on the (.exe file). Select the **Remove** option.
- Use the **Add or Remove Programs** option or for Microsoft Windows Server 2008, using the **Programs and Features** option.
- From the **Start** menu, select the uninstall shortcut.
- Refer to the *Lenovo XClarity Integrator Installer (see Lenovo XClarity Integrator Installer User's Guide* for more information about uninstalling using Lenovo XClarity Integrator Installer.

What to do next

If you authored configuration data, you will be notified whether the configuration data folder should be deleted during the uninstall process.

Chapter 3. Working with Lenovo Configuration Pack and Microsoft System Center Configuration Manager

The topics in this section describe how to use Lenovo Configuration Pack with Microsoft System Center Configuration Manager 2007 and Microsoft System Center Configuration Manager 2012.

Using Lenovo Configuration Pack with configuration data

Lenovo Configuration Pack for Microsoft System Center Configuration Manager v6.0 provides an easy way to author configuration data, which can be imported into the System Center Configuration Manager (SCCM) Desired Configuration Management (DCM) server. The SCCM DCM server assigns configuration data to its clients to evaluate whether the clients are in compliance or not.

About this task

The following procedure provides an overview of how to use Lenovo Configuration Pack with configuration data on the SCCM DCM server.

Procedure

- Create configuration data that you want to evaluate. You can create configuration data using one of the following methods:
 - Create configuration data using Lenovo Configuration Pack Editor.
For more information, see “Creating a Setting Collection” on page 12 and “Creating a configuration item” on page 24.
 - Capture configuration data from an Lenovo server that has an Integrated Management Module, a uEFI module, or a uEFI (Romley Platform) module.
For more information, see “Running Lenovo Configuration Capture” on page 88.
- Export the created configuration data to the SCCM DCM server.
For more information, see “Exporting configuration items to the Lenovo Configuration Pack CAB file” on page 42 and “Importing configuration data into DCM” on page 48.
- Assign and evaluate configuration data on the SCCM client.
For more information, see “Assigning a baseline to a collection” on page 60 and “Evaluating a baseline on an endpoint” on page 62.

Launching Lenovo Configuration Pack Editor

Lenovo Configuration Pack Editor helps you create and manage configuration data that you can export for use in Desired Configuration Management.

Before you begin

A product license is required to launch Lenovo Configuration Pack Editor. If you need to activate a product license, after launching Lenovo Configuration Pack Editor, complete step 2.

Procedure

1. From the **Start** menu, click the Lenovo Configuration Pack Editor shortcut to launch Lenovo Configuration Pack Editor.

If the trial license expired and a product license has not been activated on the Lenovo System Configuration Server, a window opens to remind you to activate the product license.

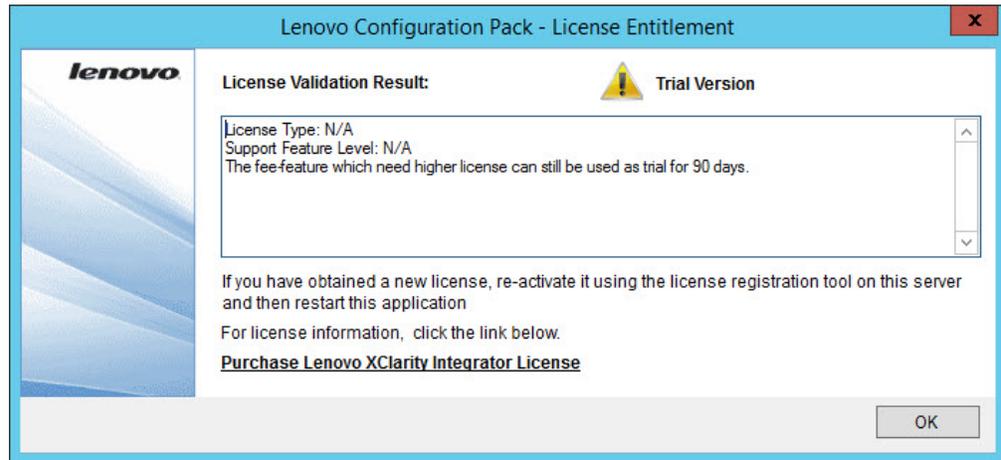


Figure 8. No License found

2. Optional: Select one of the following actions to proceed.
 - Click **OK** to activate the product license using the license tool and then restart Lenovo Configuration Pack Editor.
 - Click **Purchase Lenovo XClarity Integrator License**. After purchasing the product license, activate the product license using the license tool, and then restart Lenovo Configuration Pack Editor.
3. Optional: If this is your first time using Lenovo Configuration Pack Editor, read the "Getting Started" section and then click **Create Setting Collection** to create a firmware setting collection before grouping the Setting Collections into configuration items.

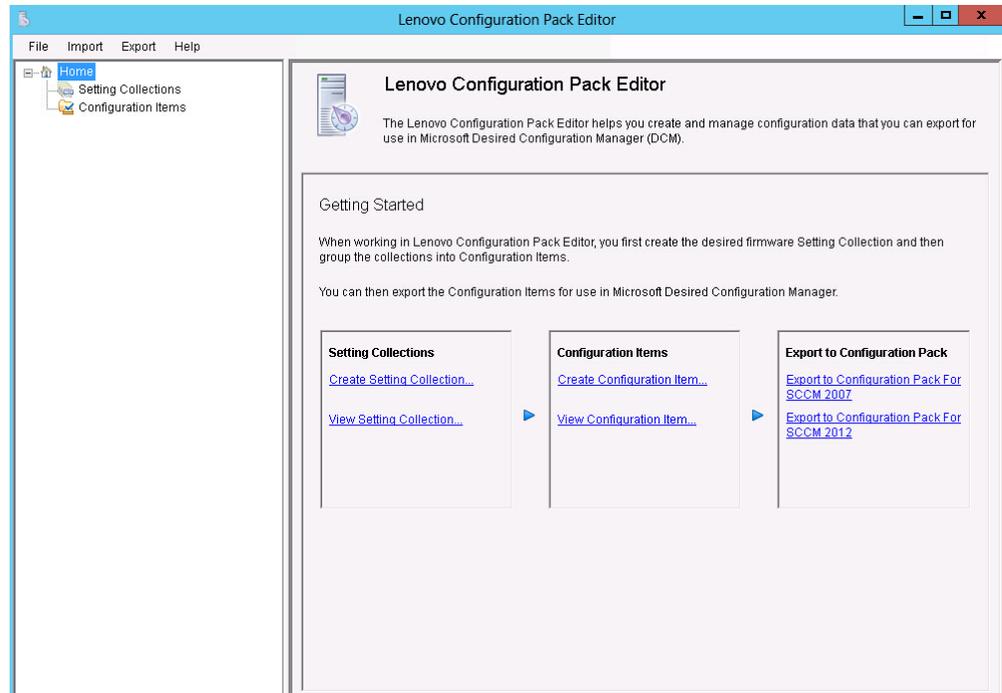


Figure 9. Lenovo Configuration Pack Editor home page

The Lenovo Configuration Pack Editor home page contains the following items:

Home navigation pane

The navigation pane provides a list of Setting Collections nodes and Configuration Items nodes.

From the navigation pane, you can select a Setting Collection or a Configuration Item, view it in the application window or right-click the selection, and perform the functions listed below.

Lenovo Configuration Pack Editor application window

The application window provides three functional areas:

Setting Collections

- Create Setting Collection
- View Setting Collection

Configuration Items

- Create Configuration Item
- View Configuration Item

Export to Configuration Pack

- Export to Configuration Pack for SCCM 2007
- Export to Configuration Pack for SCCM 2012

Setting Collection

A Setting Collection represents a desired object, setting, or value on a server. You can create, view, or modify a Setting Collection.

The Setting Collection pane of the Lenovo Configuration Pack Editor home page has two options:

- **Create Setting Collection** opens the Lenovo Configuration Pack Editor wizard and can assist you with creating a IMM/uEFI Setting Collection.
- **View Setting Collection** displays the Setting Collection list, where you can select, view, modify, and delete an existing Setting Collection.

Creating a Setting Collection

The following procedure describes how to create a Setting Collection.

Procedure

1. From the Lenovo Configuration Pack Editor home page, click **Create Setting Collection**. The Lenovo Configuration Pack Editor wizard opens to guide you through creating a Setting Collection.
2. Enter a **Name** and **Description** for the new setting collection and click **Next**. A name is required, but a description is optional.

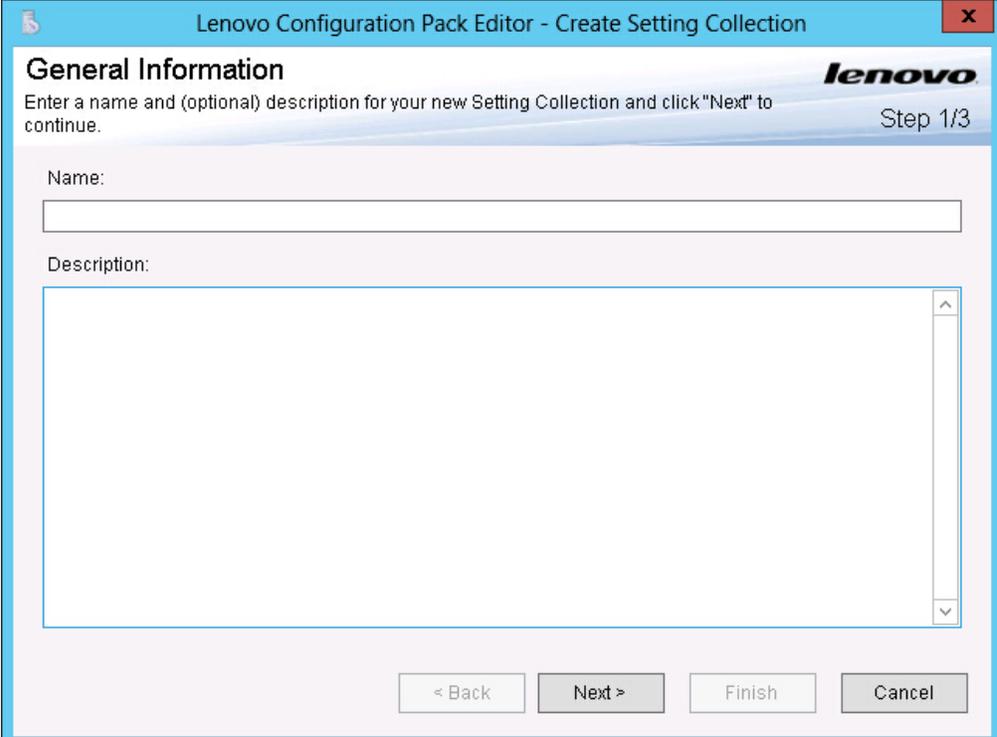


Figure 10. General Information page

3. From the **Setting Type** list, select a setting type for the new Setting Collection. The setting type cannot be modified after it has been created.

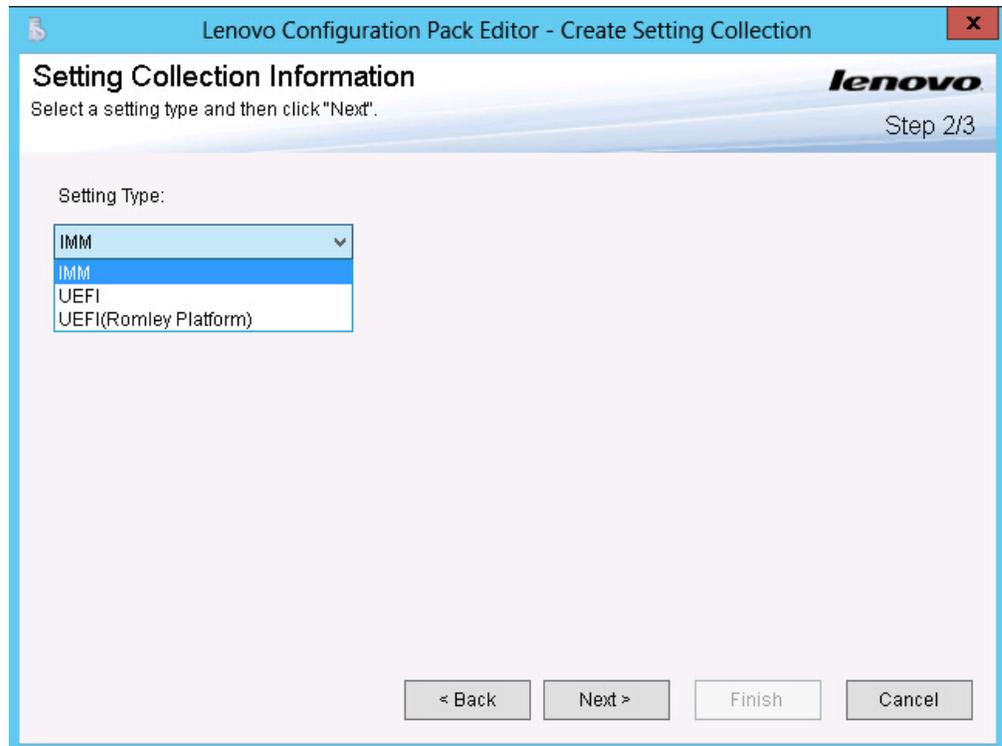


Figure 11. Setting Collection Information page

4. Click **Next**. The Property Thresholds page opens.

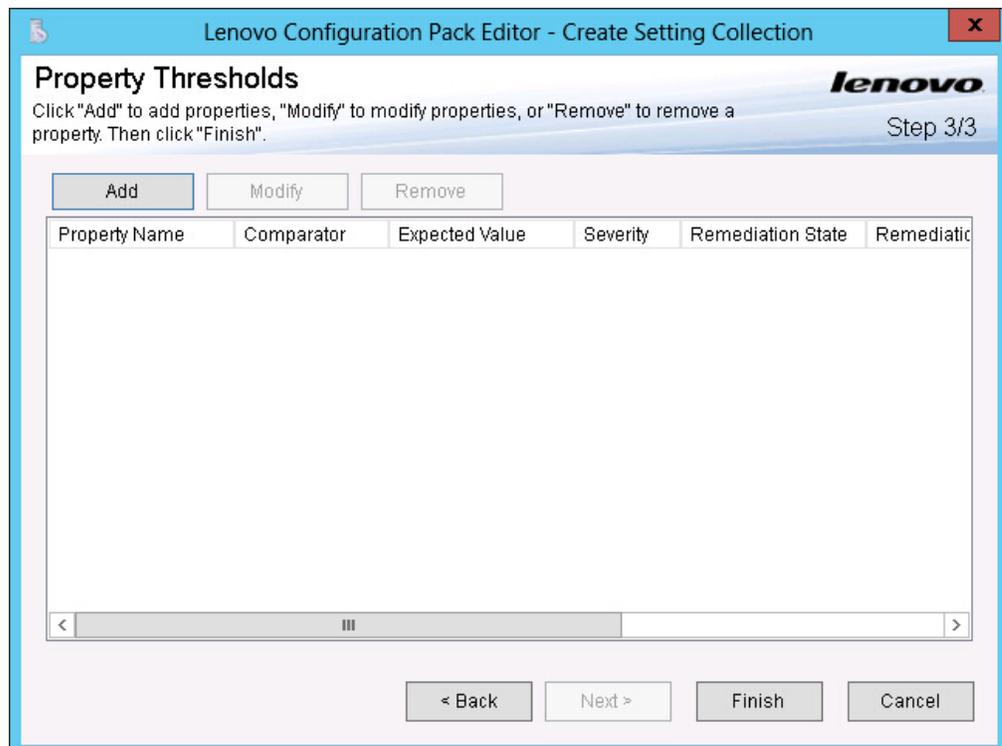


Figure 12. Property Thresholds page

5. Click **Add** to add a new property threshold. The Setting Editor page opens.

Lenovo Configuration Pack Editor - Setting Editor

Select the property that you wish to monitor for compliance. If the property list does not include the desired property, type it in the Property Name field.

Property Name:

Description:

Comparator: Value:

Severity:

Remediate noncompliant IMM/UEFI setting values on client automatically. The remediation action may be failed if the target setting is readonly.

Expected Value:

i When the property "BootModes.SystemBootMode" "Equals" "UEFI and Legacy", the property is compliant on the endpoint. Otherwise, the property is non-compliant and returns a severity of "Information".

OK Cancel Apply

Figure 13. Setting Editor page

6. Complete the following fields:

- **Property Name:** Select a specific IMM, uEFI, or uEFI (Romley Platform) setting, depending on the previous selection for the **Setting Type** on the Selecting Collection Information page.
- **Comparator:** Each property name in the list has an associated return type, such as: String, Integer, Version and Data Time, which requires that you select a comparator from the items shown in the following table:

Table 1. Comparators by return type

Return Type	Comparator	Description
String	Equals	If the evaluation property equals the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.
	Not Equals	If the evaluation property does not equal the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.
	Contains	If the evaluation property contains the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	One Of	If the evaluation property is one of the values listed for Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.

Table 1. Comparators by return type (continued)

Return Type	Comparator	Description
Integer	Equals	If the evaluation property equals the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.
	Not Equals	If the evaluation property does not equal the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.
	Less	If the evaluation property is less than the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.
	Less or Equals	If the evaluation property is less than or equal to the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.
	Greater	If the evaluation property is greater than the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.
	Greater or Equals	If the evaluation property is greater than or equal to the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.

Table 1. Comparators by return type (continued)

Return Type	Comparator	Description
Version	Equals	If the evaluation property equals the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.
	Not Equals	If the evaluation property does not equal the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.
	Less	If the evaluation property is less than the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.
	Less or Equals	If the evaluation property is less than or equal to the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.
	Greater	If the evaluation property is greater than the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.
	Greater or Equals	If the evaluation property is greater than or equal to the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.

Table 1. Comparators by return type (continued)

Return Type	Comparator	Description
Data Time	Equals	If the evaluation property equals the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.
	Not Equals	If the evaluation property does not equal the Expected Value, the property is compliant on the endpoint. Otherwise, the property is non-compliant.
	Less	If the evaluation property is less than the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.
	Less or Equals	If the evaluation property is less than or equal to the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.
	Greater	If the evaluation property is greater than the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.
	Greater or Equals	If the evaluation property is greater than or equal to the Expected Value, the property is compliant on the endpoint. Otherwise, the property is noncompliant.

- **Severity:** Select one of three levels:
 - Information
 - Warning
 - Error

When a Setting is noncompliant with the expected value on the endpoint, the Setting returns the selected severity level.

As you define the settings, the Selection Summary automatically fills the corresponding **property**, **value**, **comparator**, and **severity** fields.

Note: You can type a property that does not exist in the property support list, but Lenovo Configuration Pack Editor assumes that the property is a String return type, which means that the Comparator will only list Equals, Not Equals, Contains, and One Of. You must still type an expected value for the property.

In addition, you can set duplicate settings in the Setting Collection.

7. Click **Add** when you are finished adding the new property threshold.

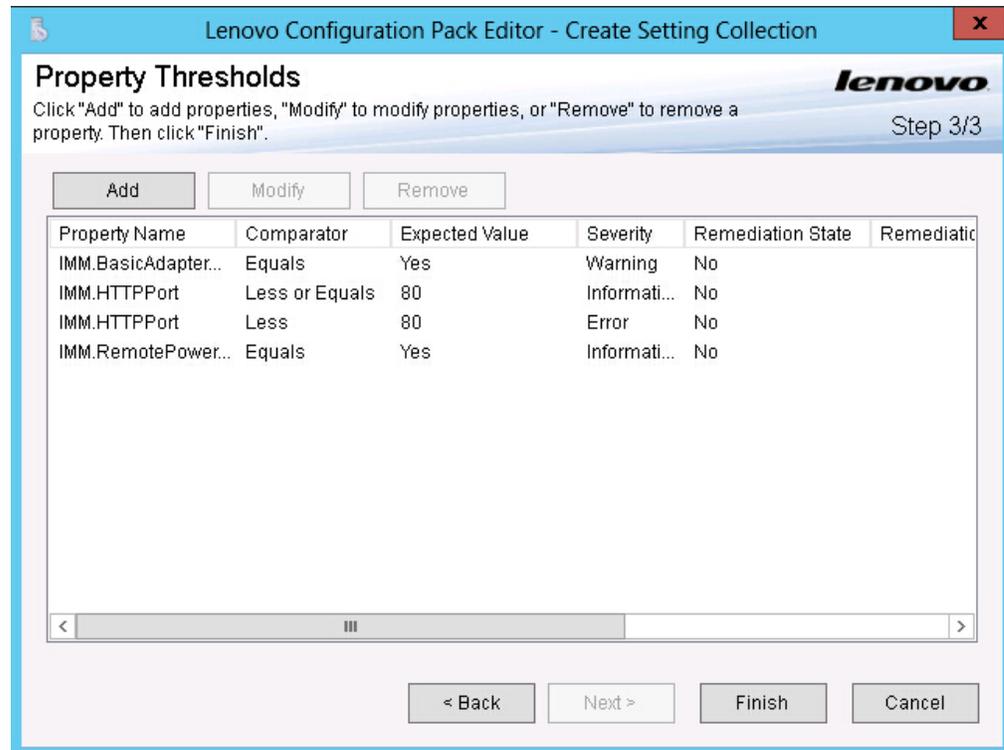


Figure 14. Property Thresholds page

8. Optional: To modify a setting, either select the setting name and click **Modify** or double-click the setting name and click **Modify**.
9. Optional: To delete a setting, select one or more settings, and click **Remove**.

Viewing a Setting Collection

The following procedure describes how to view a Setting Collection.

Procedure

- Click **View Setting Collection** on the home page. The Setting Collections list is displayed.

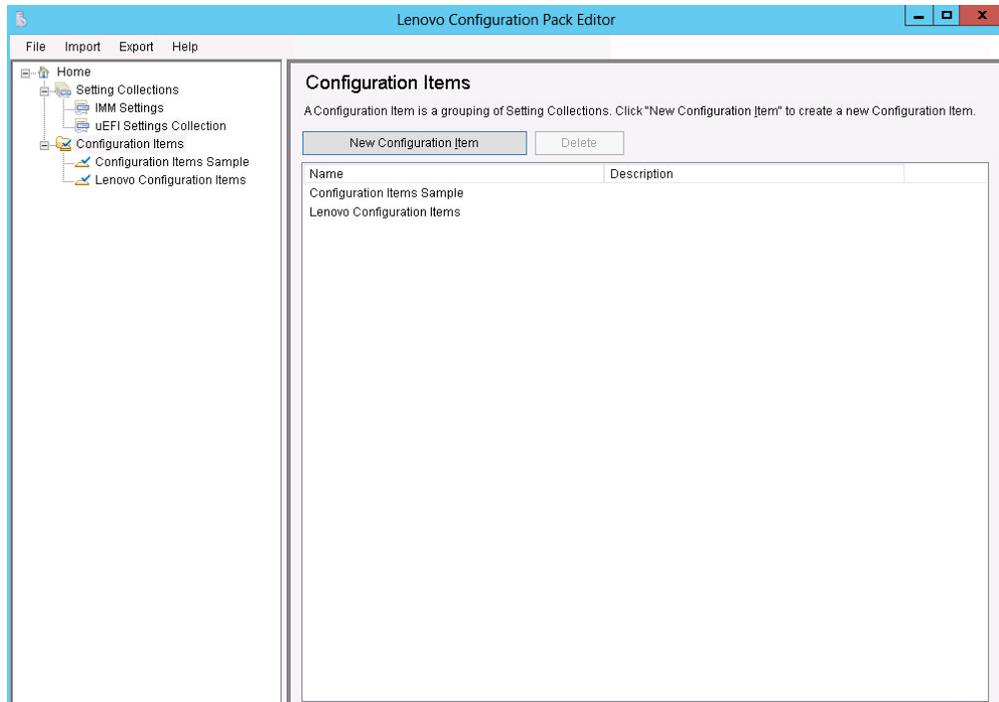


Figure 15. Setting Collections list

- Click on the name of a Setting Collection to view its properties.

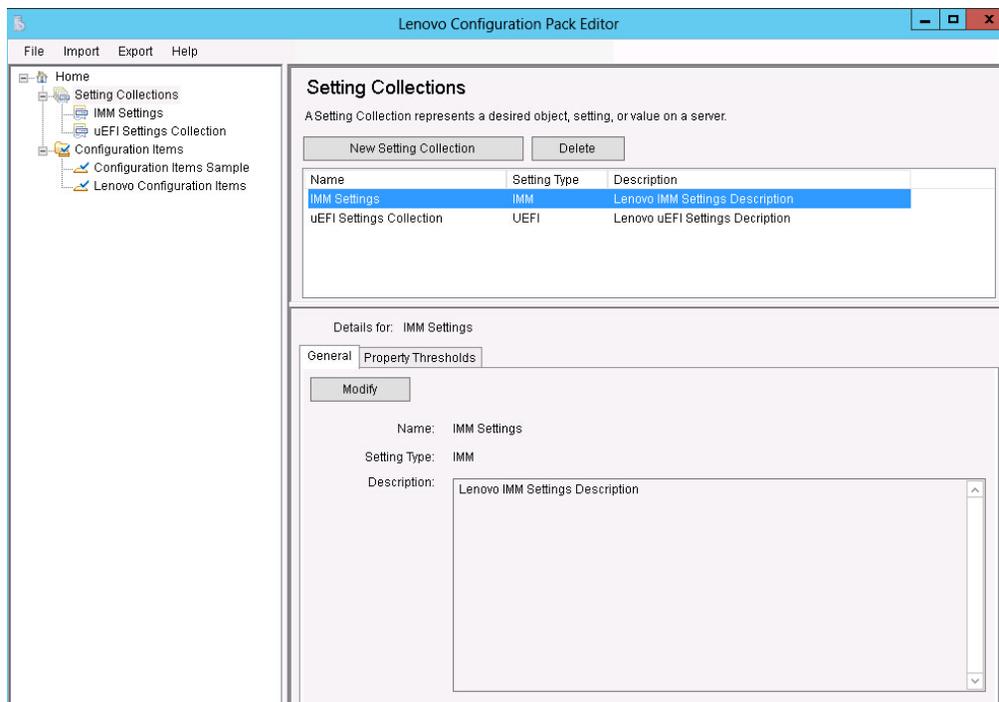


Figure 16. Setting Collection properties

- To delete Setting Collections, select one or more items in the list and either click **Delete** or press the **Delete** key.

Modifying a Setting Collection

The following procedure describes how to modify a Setting Collection.

Procedure

1. On the **General** tab on the Setting Collections page, click **Modify**. The General Information page opens.

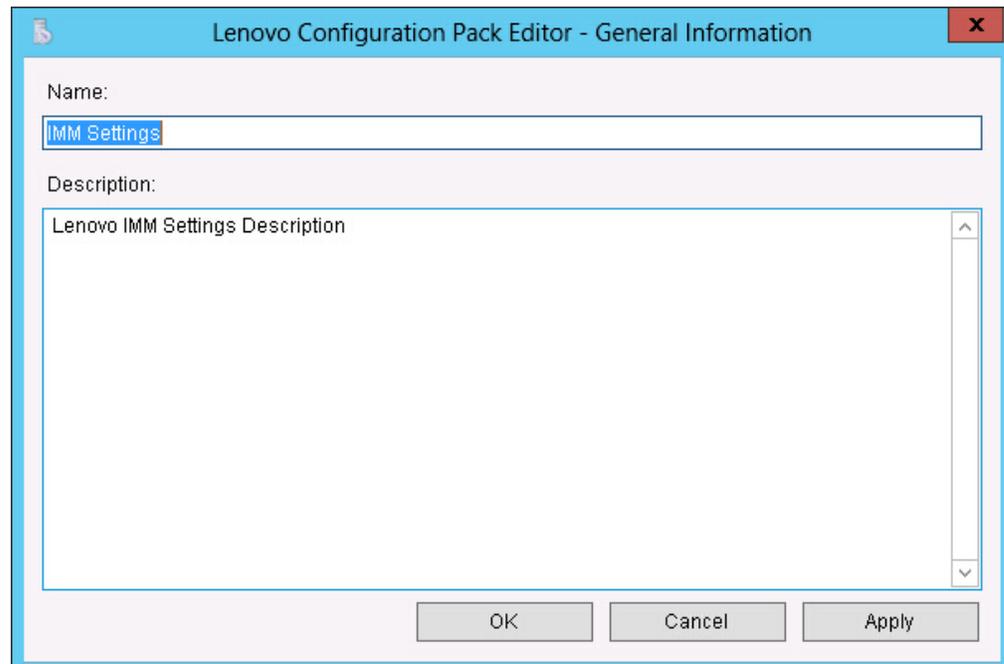


Figure 17. General Information page

2. Edit the **Name** and **Description** fields for the Setting Collection, click **Apply** and then **OK** to save the changes. The collection **Name** and **Description** can be modified, but the **Setting Type** cannot be modified.
3. Click the **Property Thresholds** tab to display a list of the existing property thresholds.

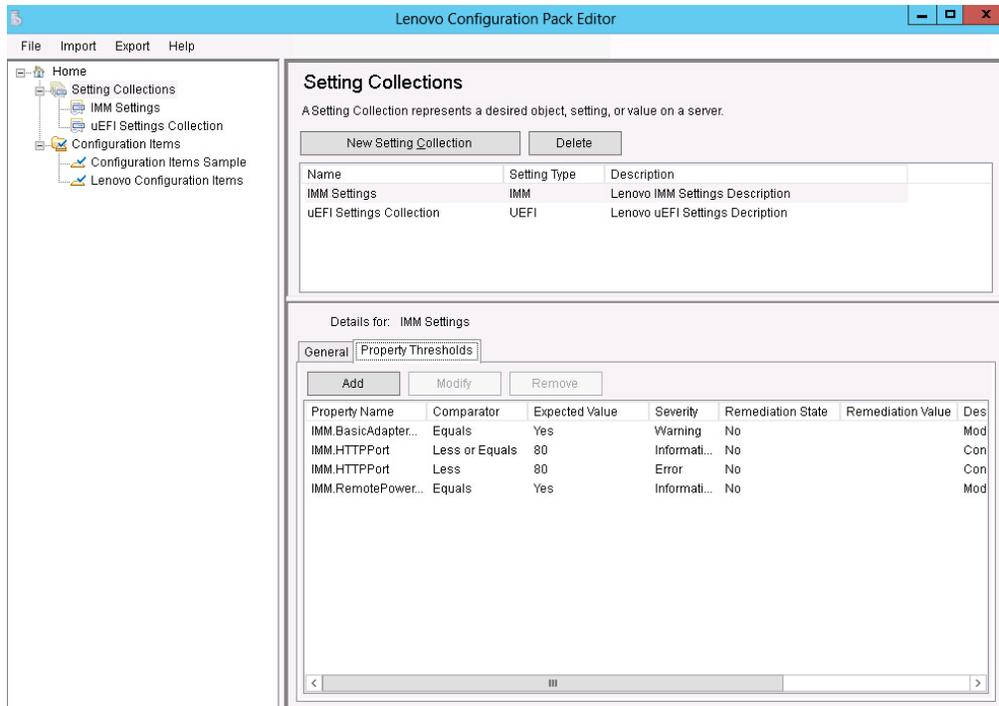


Figure 18. Property Thresholds tab

4. Select the applicable editing option.

- To add settings to the property thresholds, click **Add**.
- To edit a selected property threshold, click **Modify**.
- To delete selected property thresholds, click **Remove**.

Note: When a Setting Collection that is also used in another configuration item is deleted, it is removed from all other configuration items.

Duplicating a Setting Collection

The following procedure describes how to duplicate a Setting Collection.

Procedure

1. From the navigation pane or from the Setting Collection list, right-click a Setting Collection and click **Duplicate**.

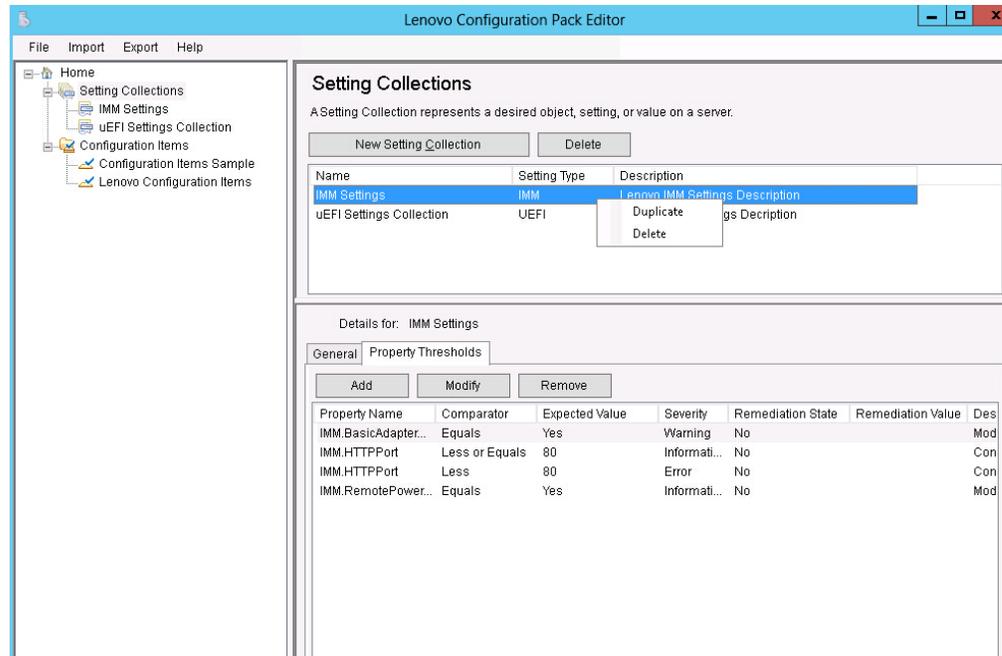


Figure 19. Duplicate Setting Collection function

2. In the Duplication Dialog window, enter the **New Name** for the duplicate Setting Collection and click **OK**.

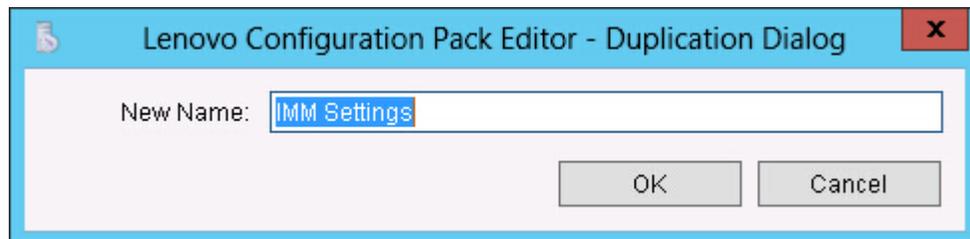


Figure 20. Duplication Dialog window

Note: The name of the duplicate Setting Collection can be the same name as an existing Setting Collection. However, it is recommended that you use a unique name for the duplicate Setting Collection. Also, if you duplicate a Setting Collection that is used by other configuration items, the new duplicate Setting Collection that is created will not be referred to by the other configuration items.

Configuration Item

A configuration item is a grouping of Setting Collections defined and managed by Lenovo Configuration Pack for Microsoft System Center Configuration Manager. You can create, view, or modify a configuration item.

The Configuration Item pane of the Lenovo Configuration Pack Editor home page has two options:

- **Create Configuration Item** opens the Lenovo Configuration Pack Editor wizard and can assist you with creating a configuration item.

- **View Configuration Item** displays the **configuration item** list, where you can select and view an existing configuration item.

Creating a configuration item

The following procedure describes how to create a configuration item.

Procedure

1. From the Lenovo Configuration Pack Editor home page, click **Create configuration item**. The Lenovo Configuration Pack Editor wizard opens to guide you through creating a configuration item.

Lenovo Configuration Pack Editor - Create Configuration Item

General Information

Enter a name and (optional) description for your new Configuration Item and click "Next" to continue. Step 1/3

Name:
Lenovo Configuration Item

Description:
Lenovo Configuration Item

Include Setting Collections:
Lenovo IMM Settings
uEFI Setting Collection for Web Site

< Back Next > Finish Cancel

Figure 21. General Information page

2. Enter a **Name** and **Description** for the new configuration item and click **Next**. A name is required, but a description is optional. The IMM Information page opens.

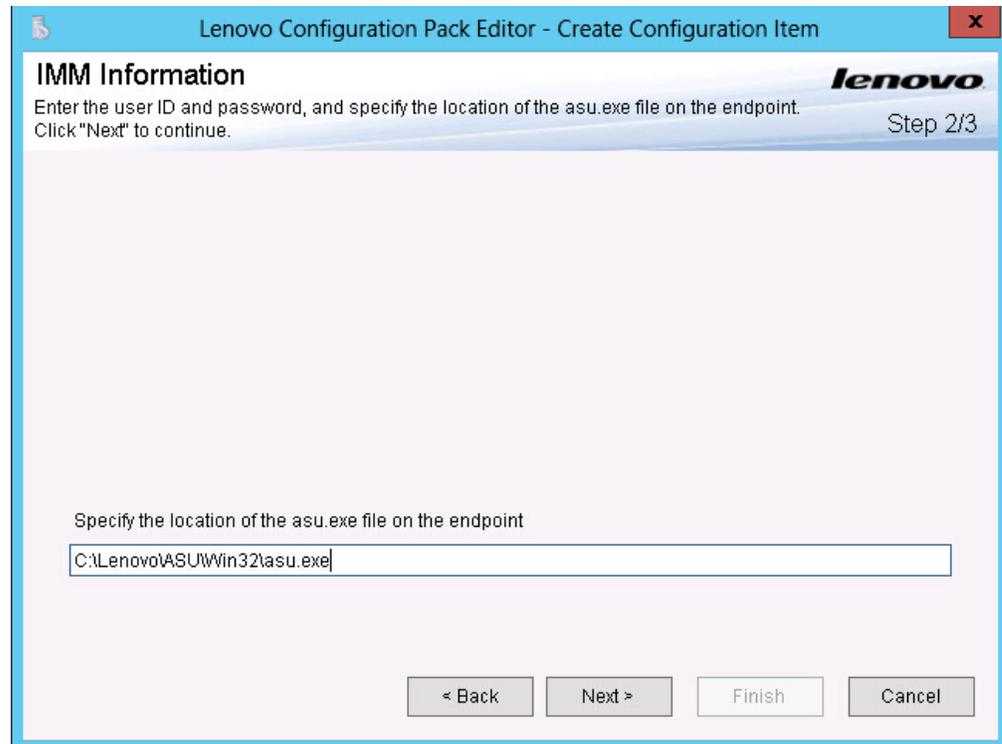


Figure 22. IMM Information page

3. Enter a **UserID** and **Password** and then **Confirm the Password** for the IMM on the target server. The UserID and Password are not required if the default account is used on the target IMM. Lenovo Configuration Pack Editor does not check the accuracy of the information entered in the **UserID** and **Password** fields.
4. In the **Specify the location of the ASU.exe file on endpoint** field, enter an absolute path to the ASU.exe file on the target server. The collection's settings use this path to invoke the ASU.exe file to detect the settings. If you do not type the correct path, it is unable to detect the ASU.exe file as shown in the following figure.

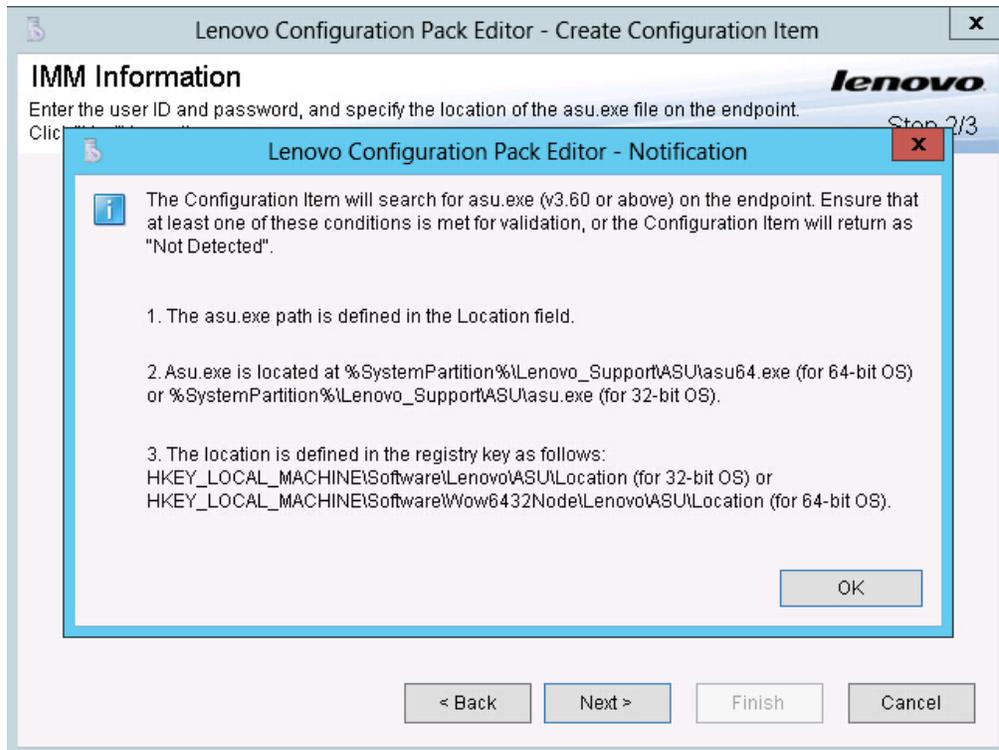


Figure 23. Asu.exe detection notification window

5. Optional: To exit the Notification window, click **OK**.
6. Click **Next**. The Configuration Items page opens.

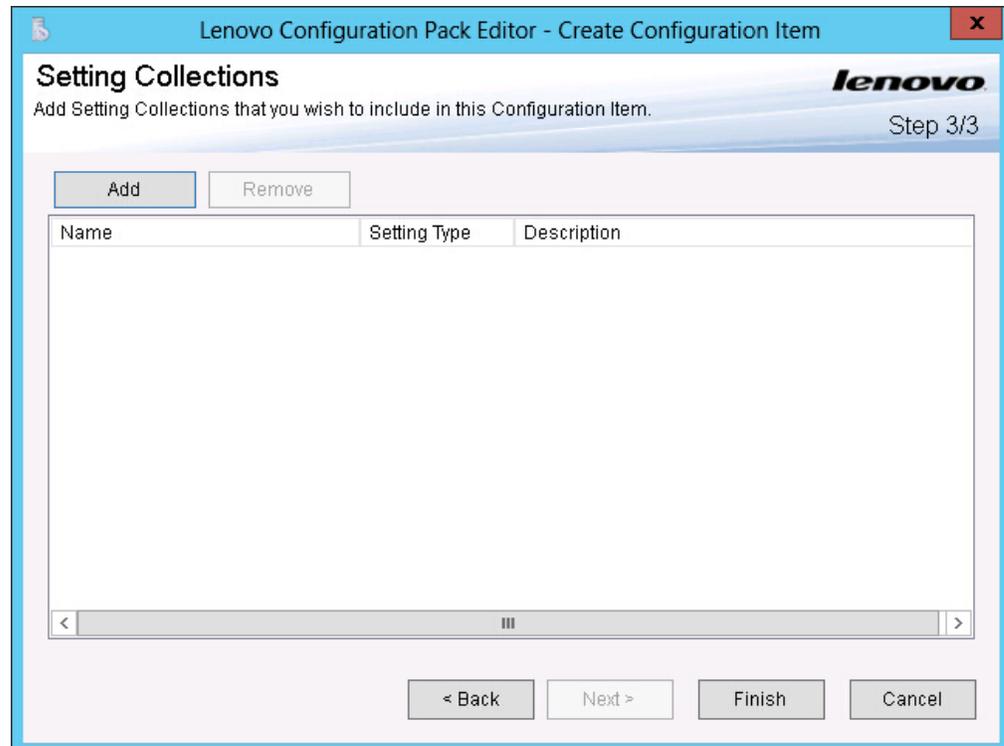


Figure 24. Configuration Items page

7. Click **Add** to add existing Setting Collections into the configuration item. The Add Setting Collections page opens.

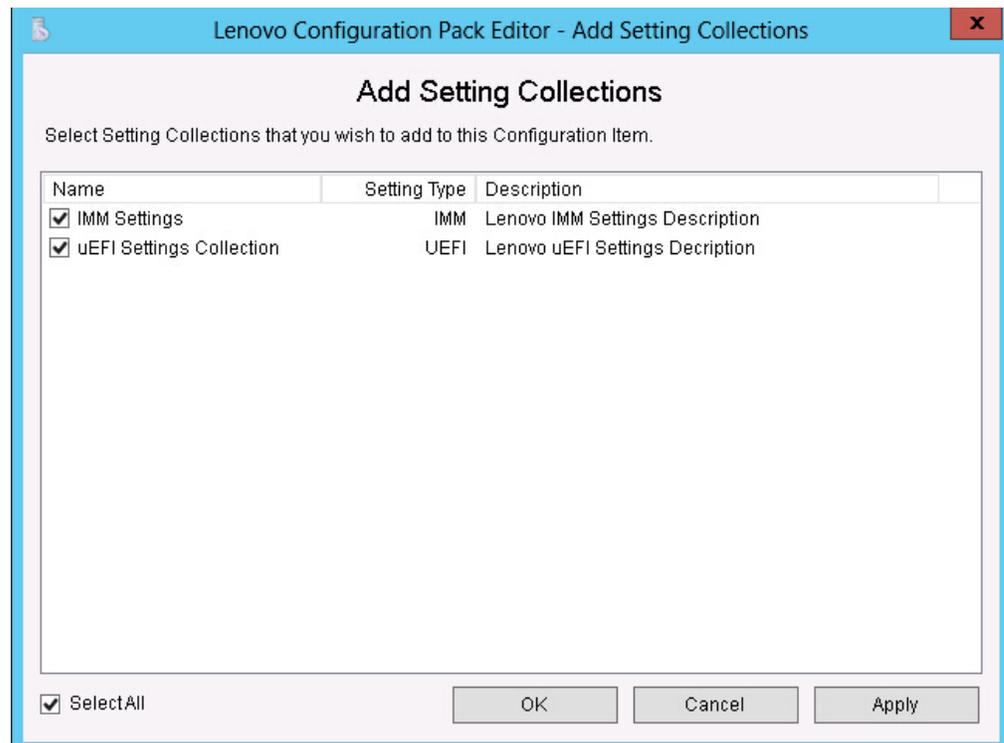


Figure 25. Add Setting Collections page

8. Select the Setting Collections you want to add to the configuration item and click **OK**. A Setting Collection can be used in multiple configuration items.

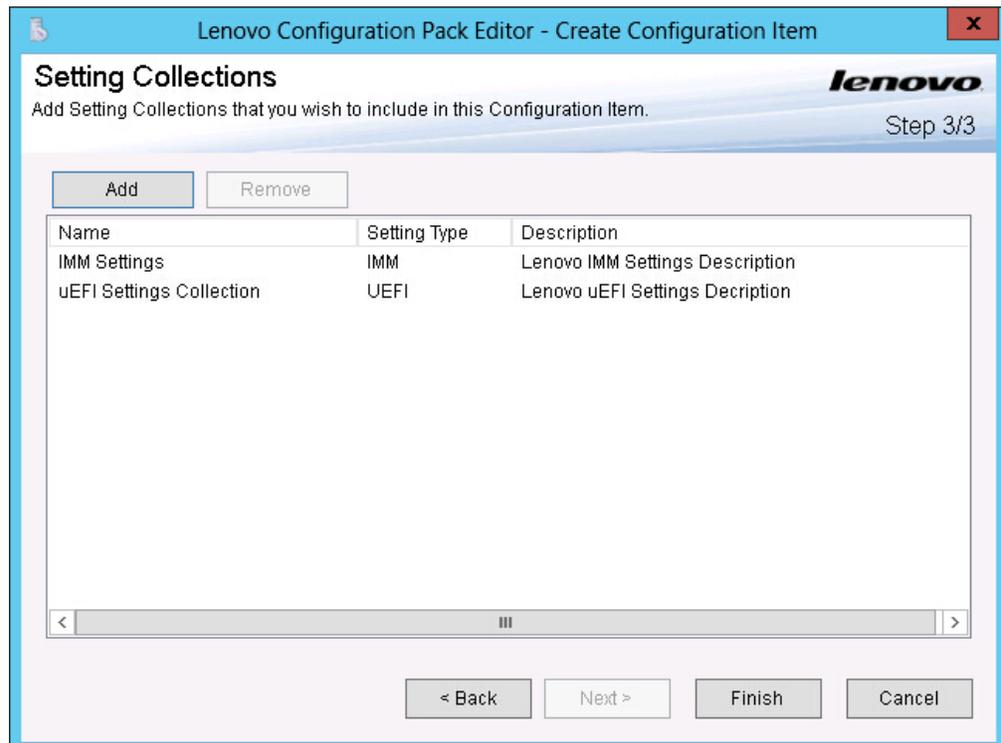


Figure 26. Add Setting Collections list

9. To remove any of the Setting Collections from a configuration item, select one or more Setting Collections in the list and click **Remove**. The **Remove** function deletes the selected Setting Collections from the current configuration item, but it does not delete Setting Collections from this list.
10. Click **Finish**.

Viewing a configuration item

The following procedure describes how to view configuration items.

Procedure

- Click **View configuration item** on the home page. The Configuration Items list is displayed.

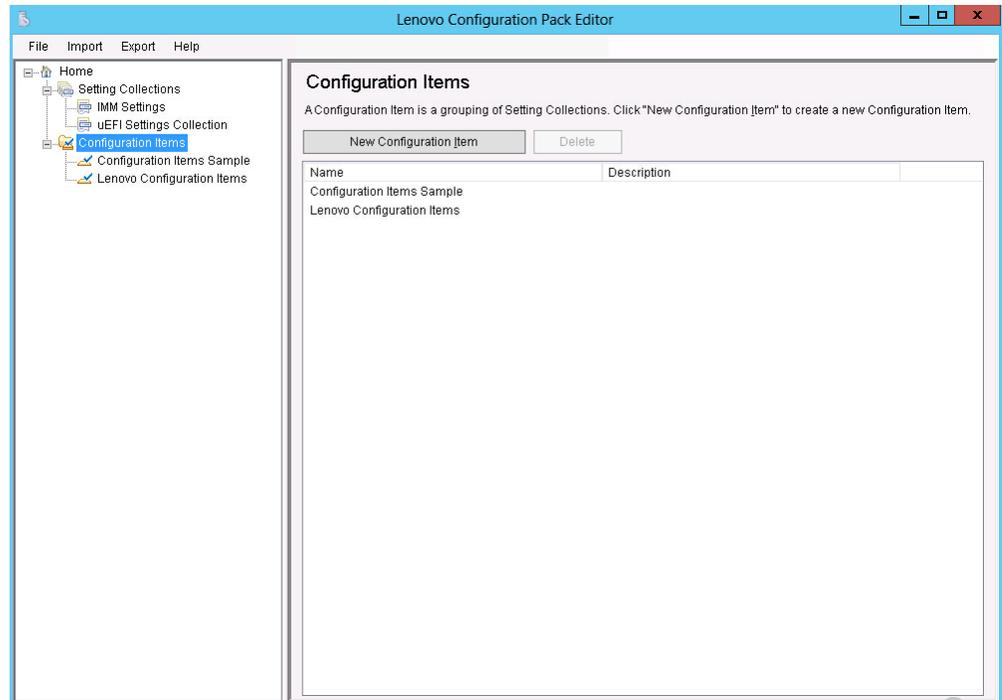


Figure 27. Configuration Items list

- Click on the name of a Configuration Item to view its properties.

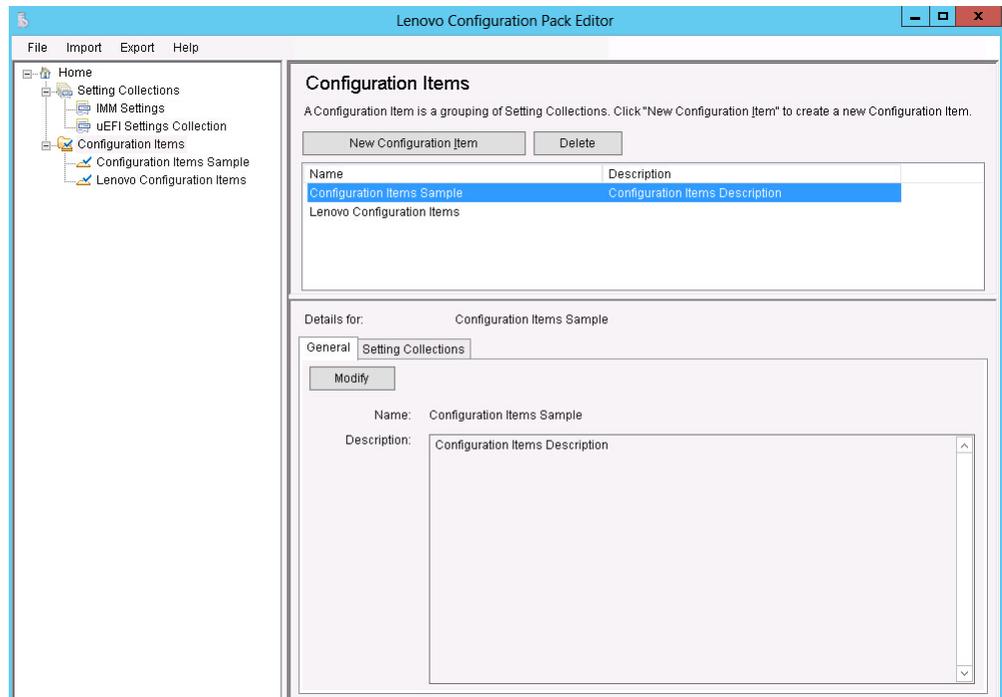


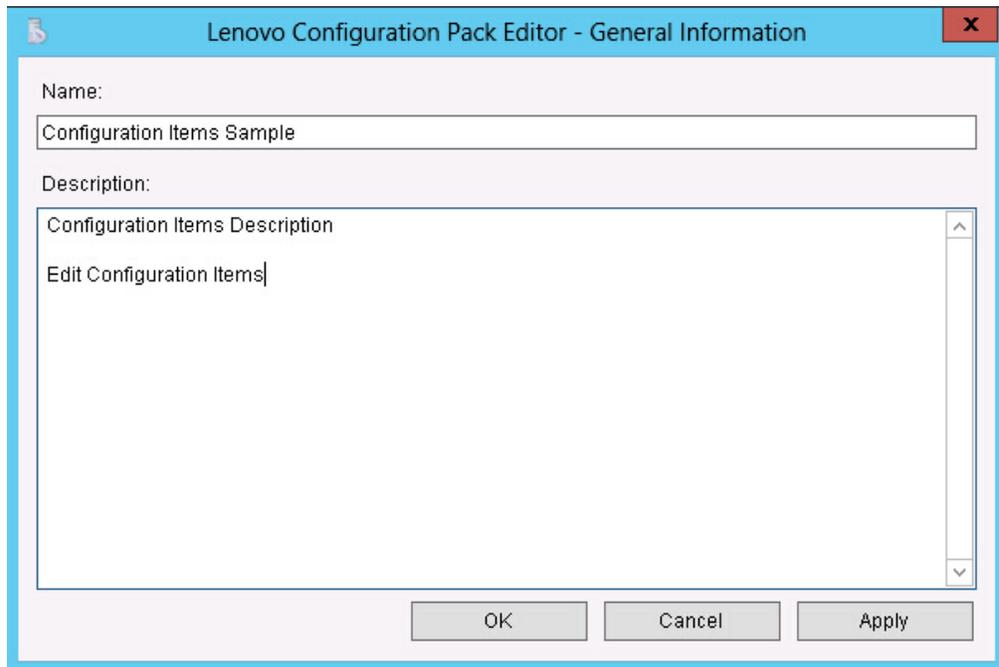
Figure 28. Configuration item properties

Modifying a configuration item

The following procedure describes how to modify a configuration item.

Procedure

1. On the **General** tab on the Configurations Items page, click **Modify**. The General Information page opens.



The screenshot shows a dialog box titled "Lenovo Configuration Pack Editor - General Information". It has a light blue header bar with a small icon on the left and a close button (X) on the right. The main area is white and contains two text input fields. The first field is labeled "Name:" and contains the text "Configuration Items Sample". The second field is labeled "Description:" and contains the text "Configuration Items Description" followed by "Edit Configuration Items|". Below the description field is a vertical scrollbar. At the bottom of the dialog box, there are three buttons: "OK", "Cancel", and "Apply".

Figure 29. Configuration Pack Editor - General Information page

2. Edit the **Name** and **Description** fields for the configuration item, click **Apply** and then **OK** to save the changes.
3. Click the **IMM Account** tab to display the IMM Account information.

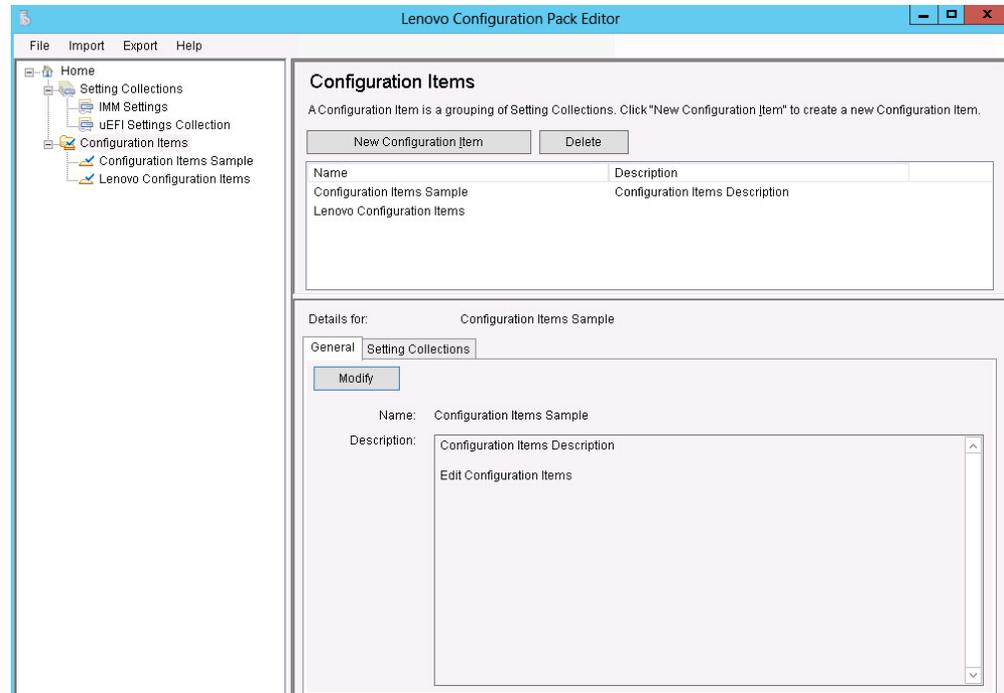


Figure 30. IMM Account tab

4. Click **Modify** to enter a new **UserID** or **Password** for the IMM on the target server.

Note: Lenovo Configuration Pack Editor does not check the accuracy of the **UserID** and **Password** fields. It is recommended that you use the default account to eliminate any errors.

5. In the **Specify the location of the ASU.exe file on endpoint** field, enter an absolute path to the ASU.exe file on the target server. The collection's settings will use this path to invoke the ASU.exe file to detect the settings. If you do not type the correct path, the setting attempts to detect the ASU.exe file as specified in the window shown in the figure below.

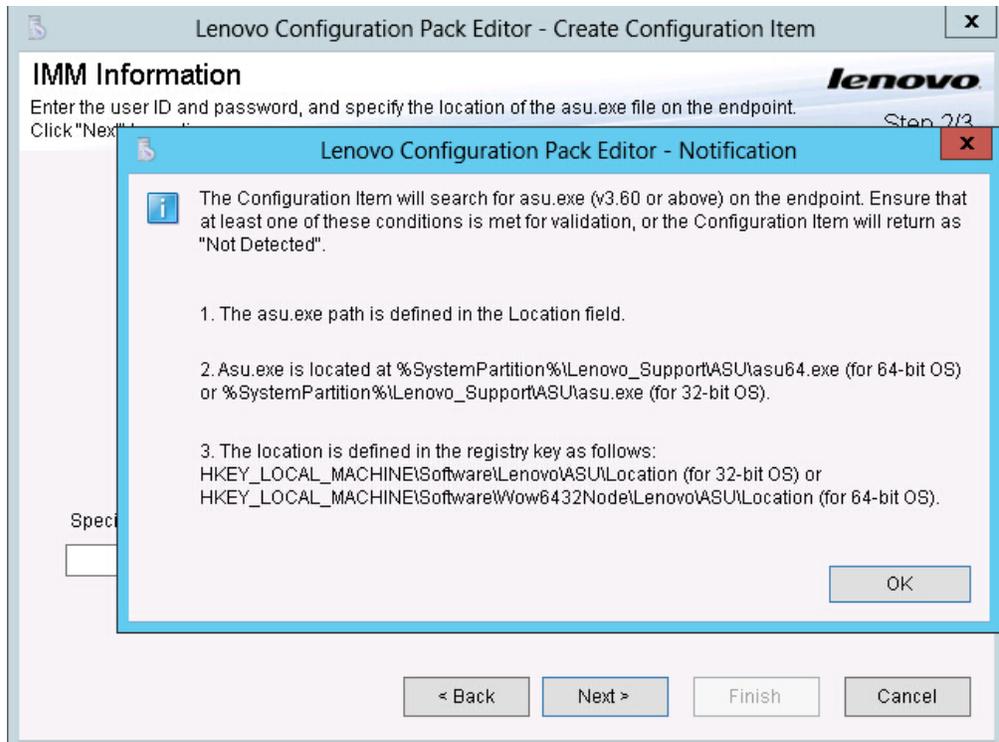


Figure 31. Asu.exe detection notification window

6. Optional: To exit the Notification window, click **OK**.
7. Click the Setting Collections tab.

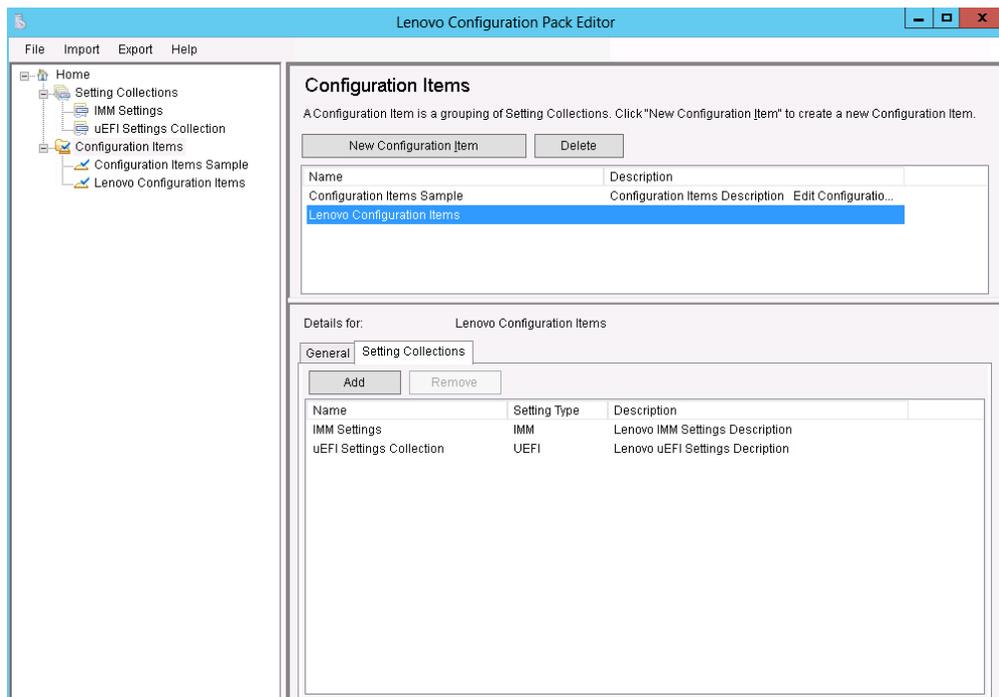


Figure 32. Setting Collections tab

8. Click **Add** to add existing Setting Collections into the configuration item. The Add Setting Collections page opens.

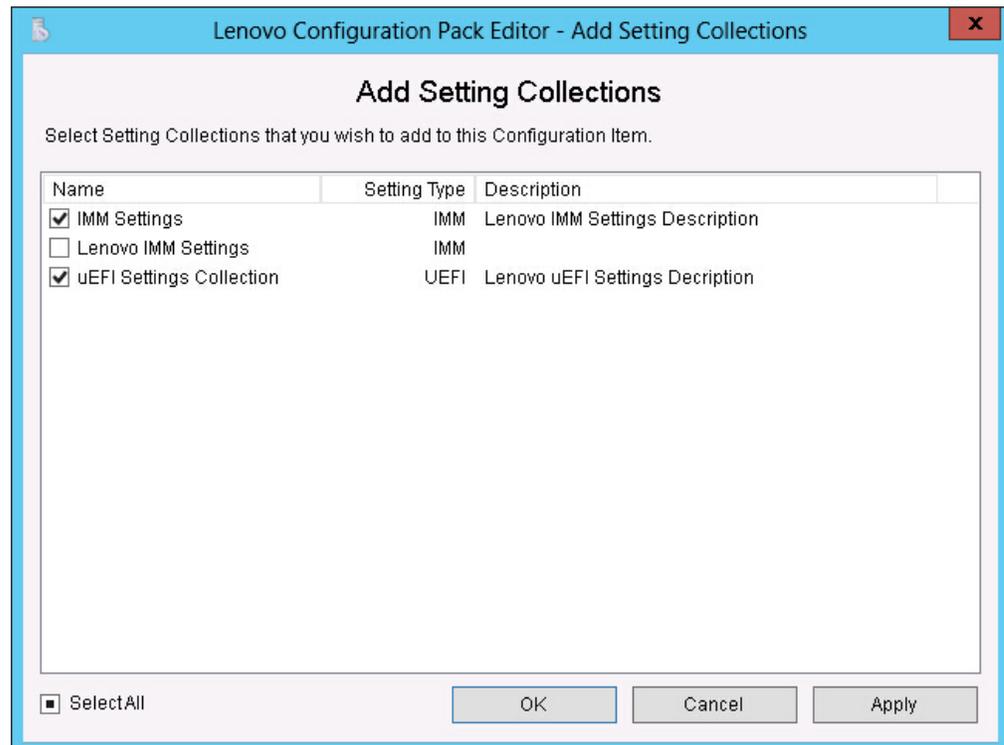


Figure 33. Add Setting Collections selection page

9. Select the Setting Collections you want to add to the configuration item and click **OK**.

Note: A Setting Collection can be used for more than one configuration item.

10. To remove Setting Collections from a configuration item, select one or more Setting Collections in the list view, and click **Remove**.

Note: If you click **Remove**, the selected Setting Collections will be deleted from the current configuration item, but it will not delete the Setting Collections from other configuration items.

Duplicating a Configuration Item

The following procedure describes how to duplicate a configuration item.

Procedure

1. From the navigation pane or from the configuration item list, right-click a configuration item and click **Duplicate**.

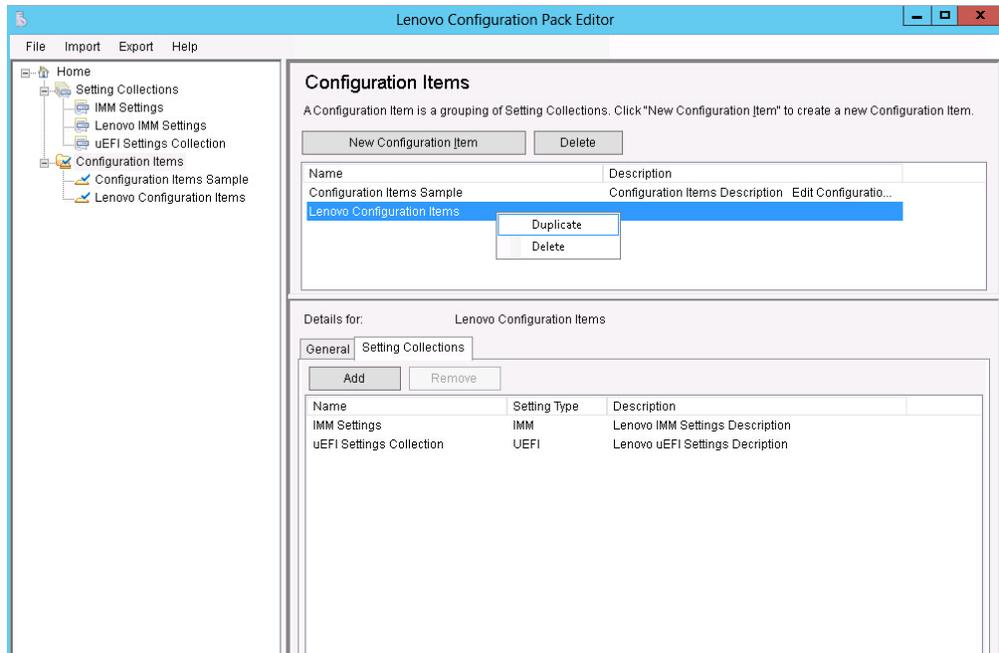


Figure 34. Duplicate Configuration Item function

The Duplication Dialog window is displayed.

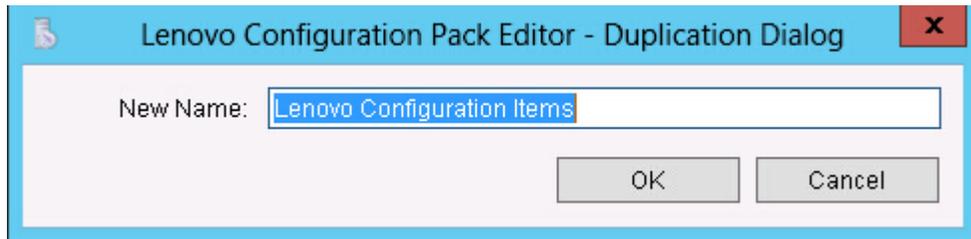


Figure 35. Duplication Dialog window

2. In the Duplication Dialog window, enter the **New Name** of the configuration item and click **OK**. Although the name of the duplicate configuration item can be the same as an existing configuration item, it is recommended that you use a unique name.

Note: After you duplicate a configuration item, the new duplicate configuration item will refer to the same Setting Collection of the source configuration item.

Deleting a configuration item

The following procedure describes how to delete a configuration item.

Procedure

1. From the navigation pane or from the configuration item list, right-click a configuration item, and click **Delete**. The Deletion Dialog window is displayed.
2. Click **OK** to continue with the deletion of the configuration item or click **Cancel** to exit this operation.

Note: The child Setting Collections of a deleted configuration item are not deleted.

Exporting configuration data to a configuration description file

To enable administrators to author and share configuration data, you can export configuration items and their children, Setting Collections, into a configuration description XML file.

Procedure

1. From the Lenovo Configuration Pack Editor menu, click **Export > To Configuration File**.

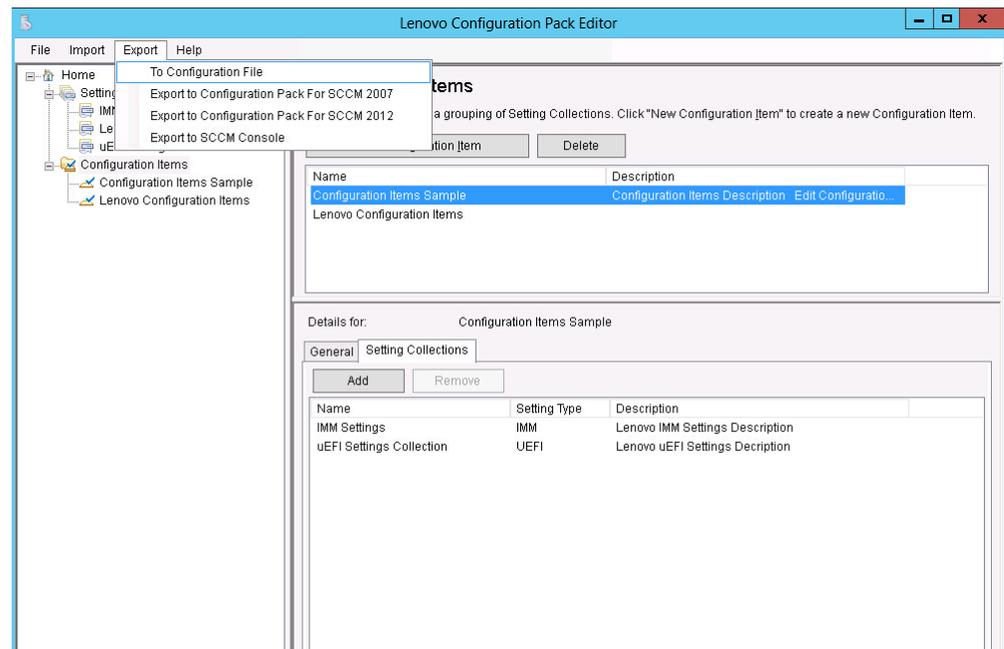


Figure 36. Exporting configuration data to configuration file

The Export to Configuration Item(.xml) page opens.

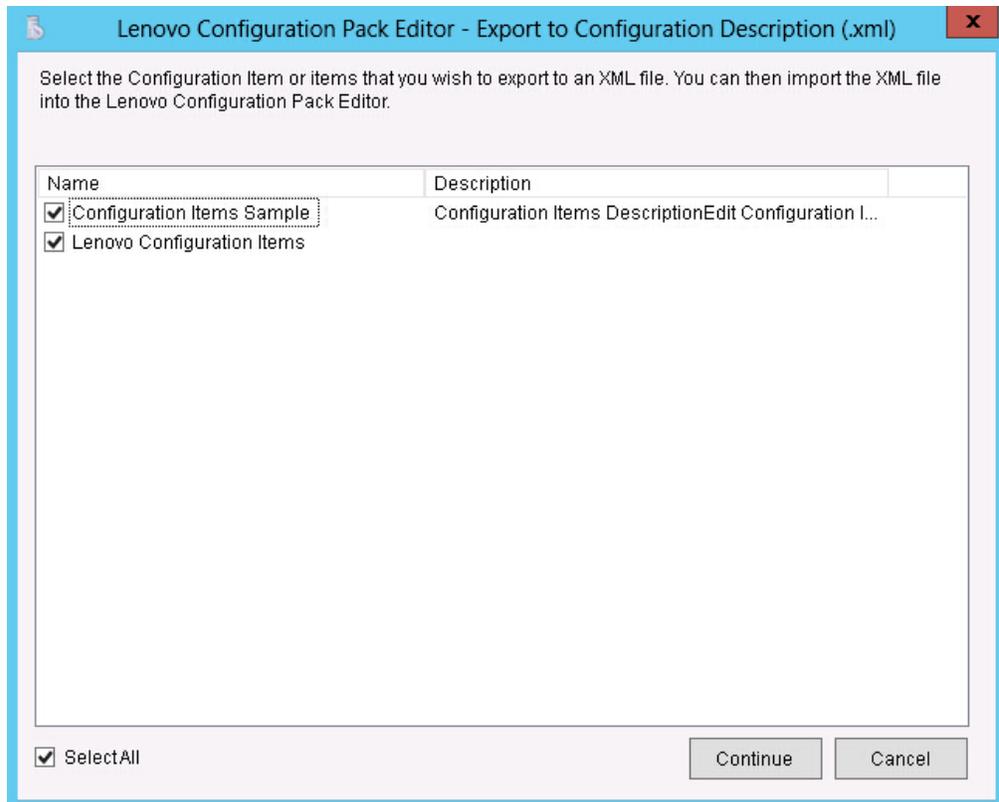


Figure 37. Export to Configuration Description (.xml) page

2. Select the configuration items you want to export and click **Continue**. The Export configuration description file Save as window opens.

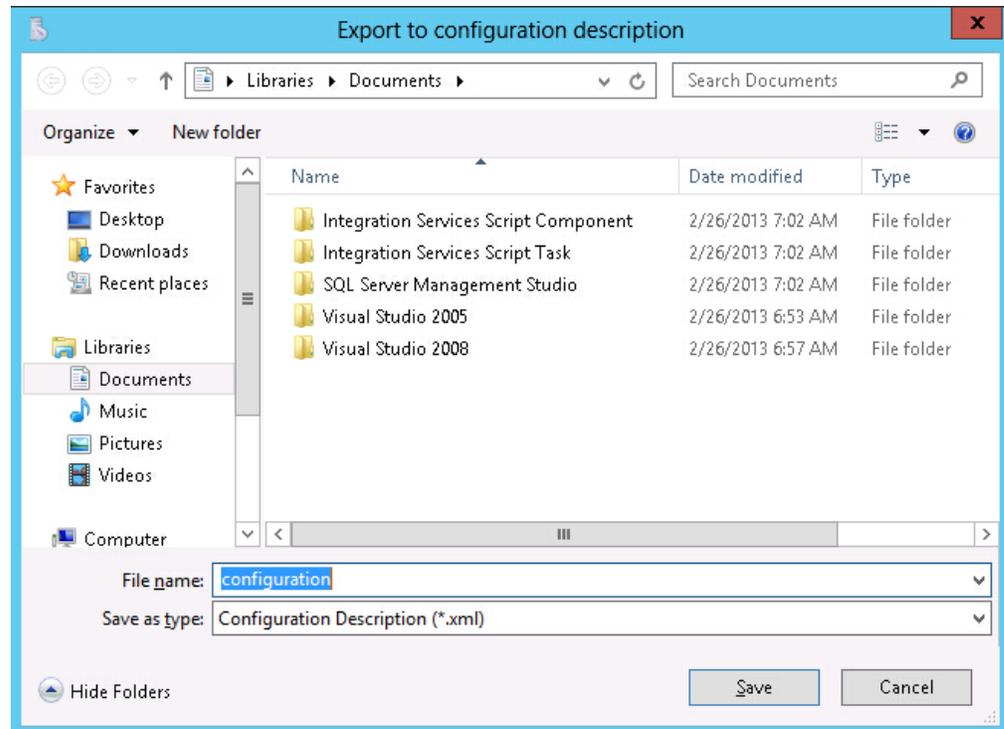


Figure 38. Export configuration description file Save as window

3. Enter a name in the **File name** field and select a file type from the **Save as type** list and then click **Save**. The child Setting Collections of the selected configuration items are also exported automatically. A message is displayed indicating the export was successful.

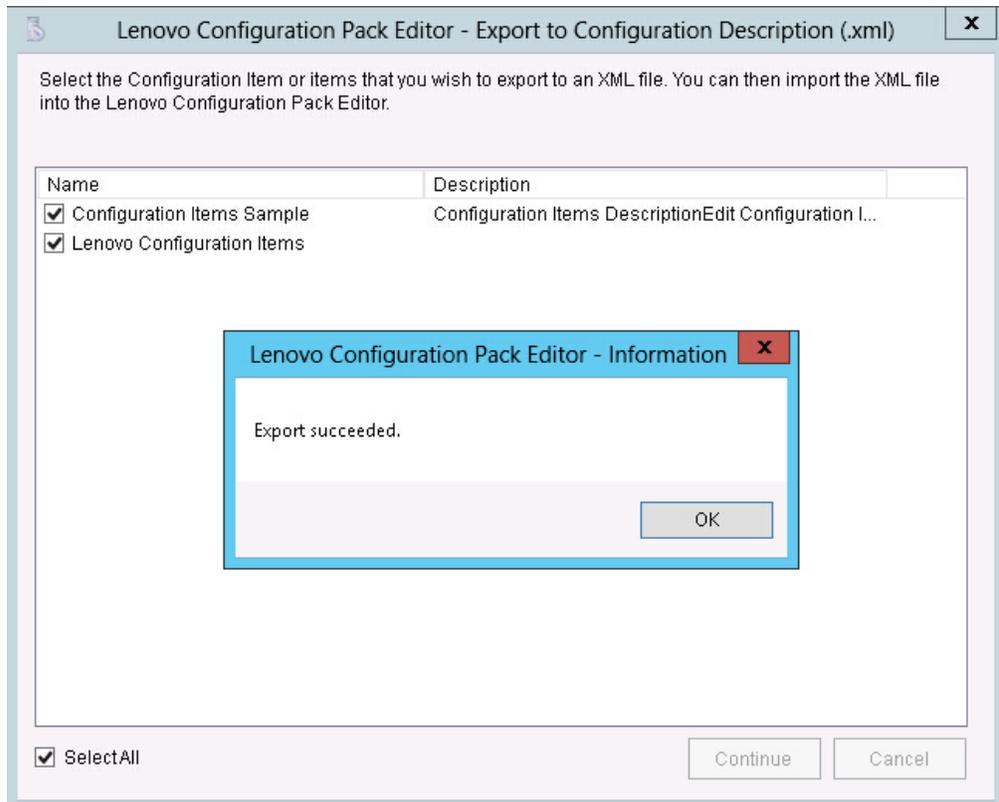


Figure 39. Export Succeeded message

4. Click **OK**.

Importing the configuration description XML file

The following procedure describes how to import the configuration description XML file.

Procedure

1. From the Lenovo Configuration Pack Editor menu, click **Import > Configuration File**.

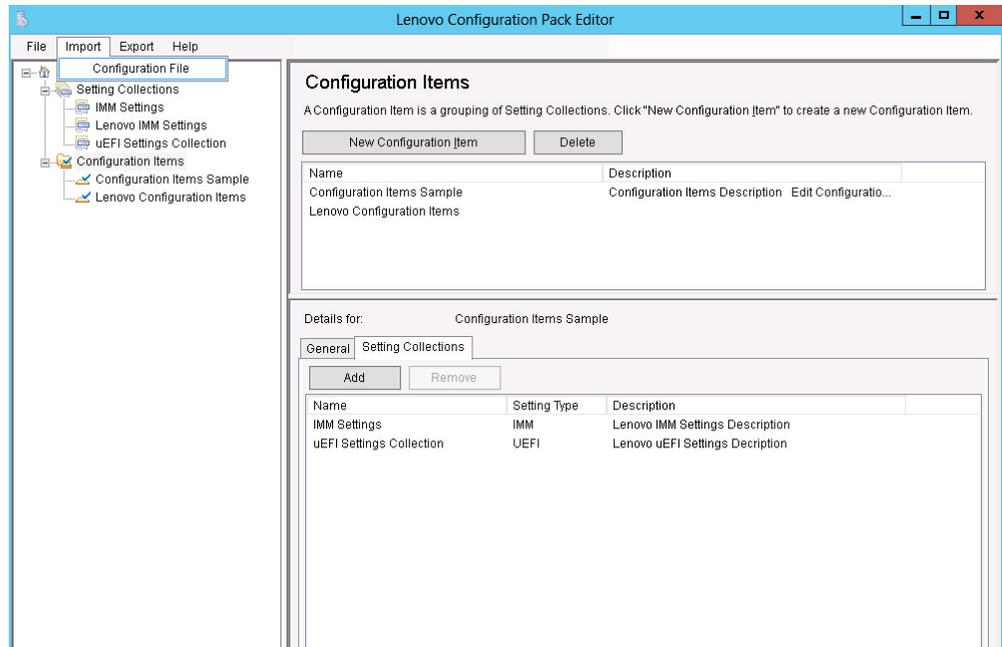


Figure 40. Import Configuration File menu

The Import a Configuration XML file window opens.

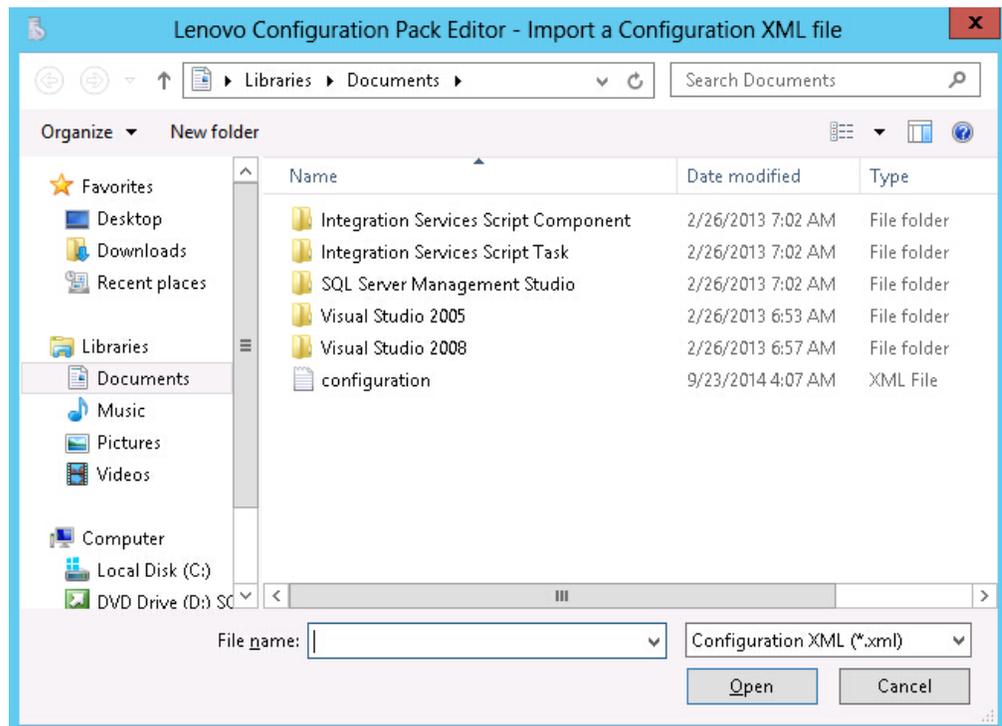


Figure 41. Import a Configuration XML file window

2. Select a configuration description XML (.xml) file to import and click **OK**. The Confirm Replace window opens.

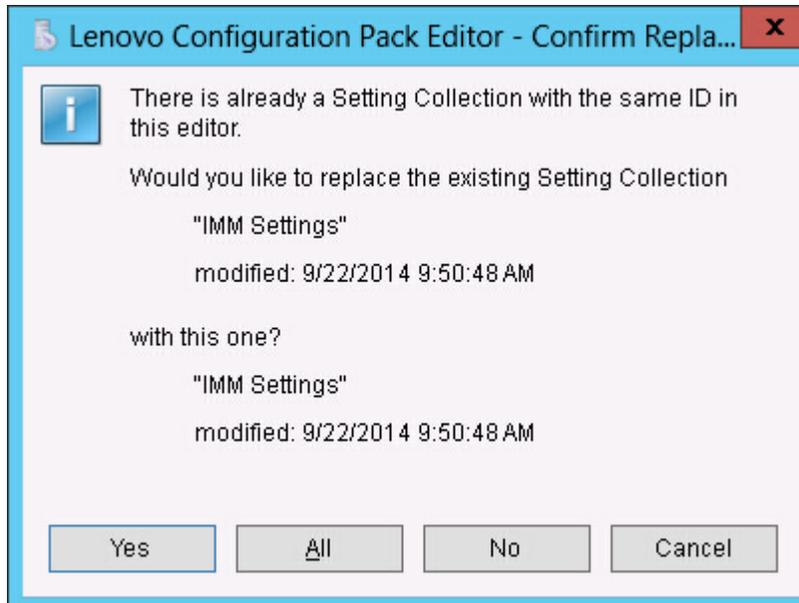


Figure 42. Confirm Replace Setting Collection window

In the Lenovo Configuration Pack Editor program, every Setting Collection and configuration item has a unique identifier (ID). When the same ID has been used, even if the names are different, the Confirm Replace Setting Collection window opens, asking you to confirm that you want to replace the existing configuration data.

Note: If you import a Setting Collection that has the same ID as an existing Setting Collection in the configuration item, the imported Setting Collection will replace the existing Setting Collection. The configuration item will refer to the imported Setting Collection regardless of whether its content is the same as the content of the previous Setting Collection.

Checking the license validation status

The following procedure describes how to check the license validation status.

Procedure

1. From the Lenovo Configuration Pack Editor menu, click **Help > License**.

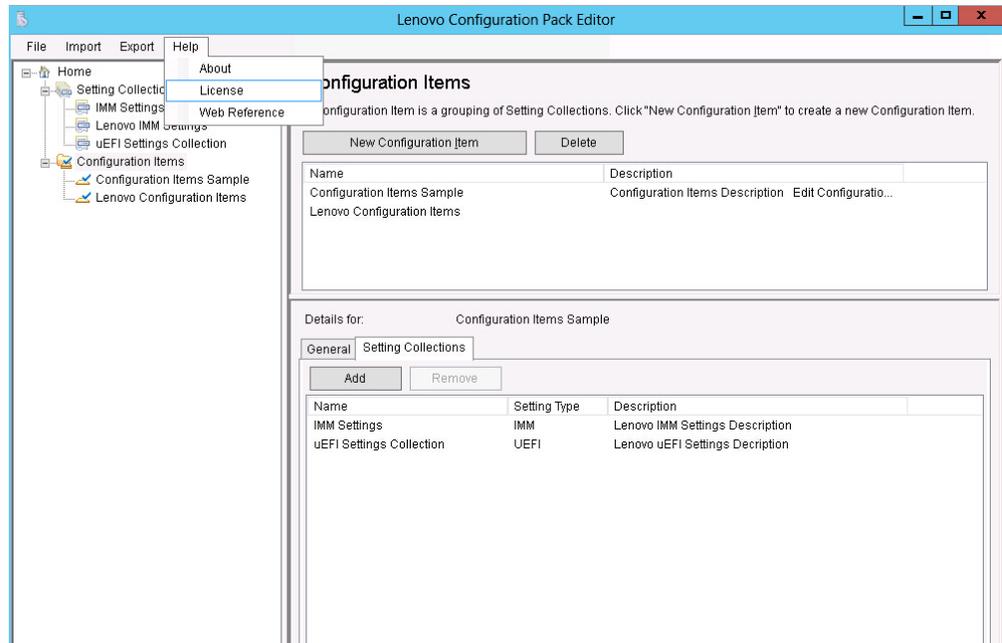


Figure 43. License menu option

The License Entitlement window opens indicating the license validation result.

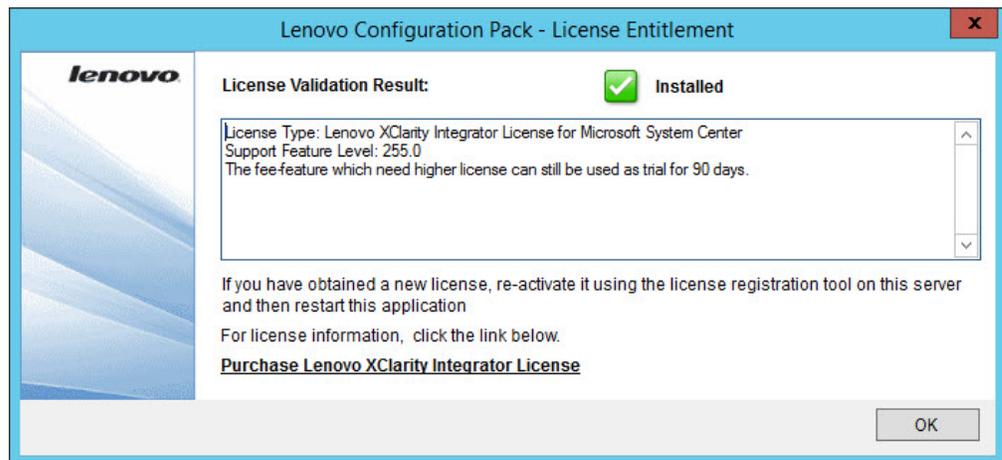


Figure 44. License Entitlement window

2. Review the information and click **OK** to exit this page.
3. Optional: Click **Purchase Lenovo XClarity Integrator License** to view additional license information.

The Lenovo Configuration Pack CAB file

You can use Lenovo Configuration Pack Editor to export configuration items by saving them as a CAB (.cab) file. The CAB file can then be imported to an SCCM server. The configuration items can also be deployed to SCCM clients to check the IMM/uEFI settings.

The following list provides an overview of how the CAB file is created, imported, and deployed.

- Using Lenovo Configuration Pack Editor, export configuration items to an Lenovo Configuration Pack CAB file.
The Export function allows you to export multiple configuration items and their children, known as Setting Collections.
- The Export to Lenovo Configuration Pack GUI configuration items list with selection boxes is composed of the exported configuration item and Lenovo Configuration Pack CAB file link.
- The Lenovo Configuration Pack CAB file can then be imported to an SCCM console as a DCM Configuration Pack.

Exporting configuration items to the Lenovo Configuration Pack CAB file

The following procedure describe how to export the Lenovo Configuration Pack CAB file.

Procedure

1. From the Lenovo Configuration Pack Editor menu, click **Export > Export Configuration item to Configuration for SCCM 2007** or **Export Configuration item to Configuration for SCCM 2012**, whichever is applicable.

The Export to Lenovo Configuration Pack page opens and provides a list of configuration items, their version number, and a brief description.

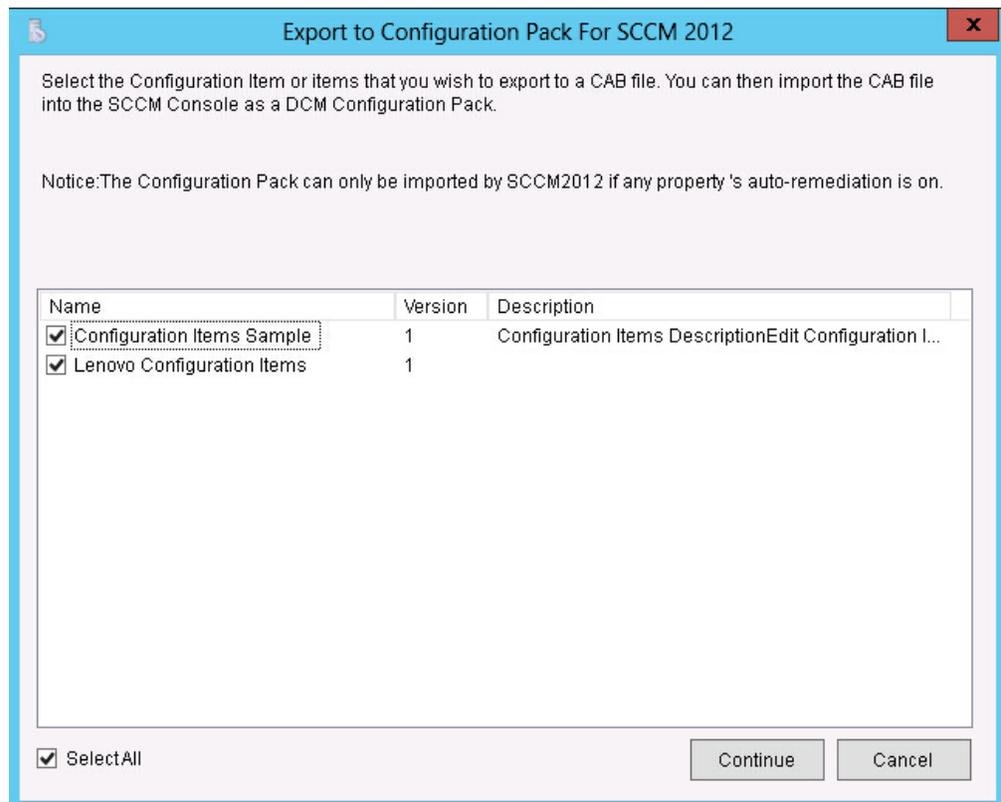


Figure 45. Export to Lenovo Configuration Pack for SCCM 2007 page

2. Select the individual configuration items that you want to export or click **Select All**, and then click **Continue**.

Note: The version of a configuration item is an internal variable that cannot be modified directly. SCCM DCM uses the version to evaluate whether a configuration item should be updated. When configuration data is updated in Configuration Manager, previous versions are overwritten, providing clients with the latest version for evaluation.

The Export to Lenovo Configuration Pack file window opens.

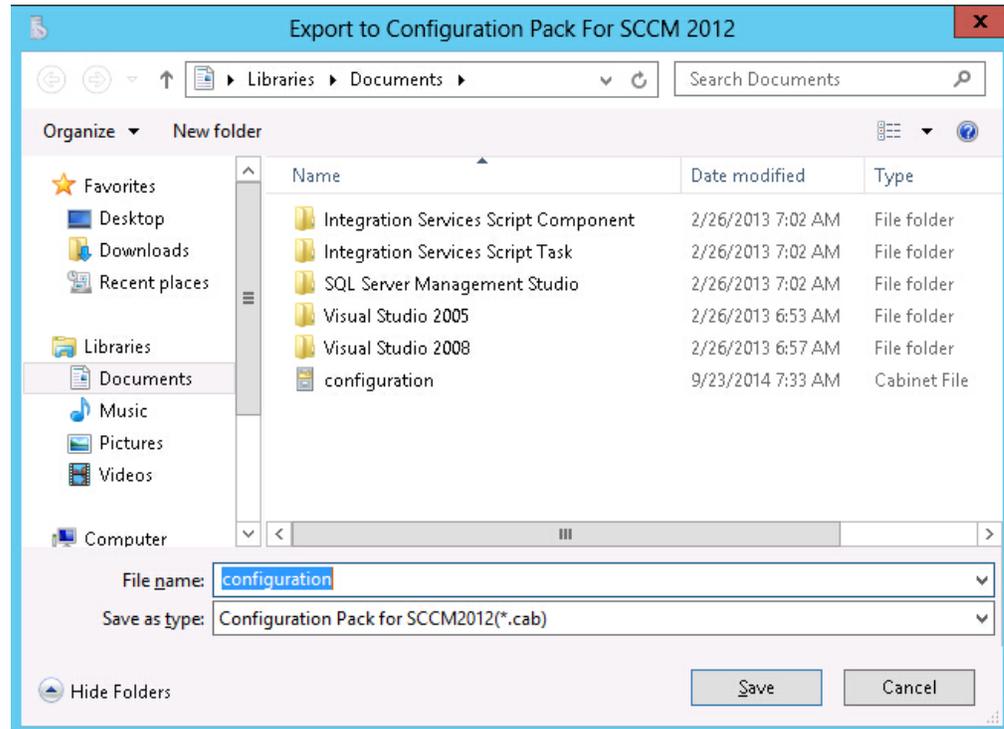


Figure 46. Export to Lenovo Configuration Pack for SCCM 2012 window

3. Enter the **File name** and click **Save**. A message is displayed indicating that the export succeeded.

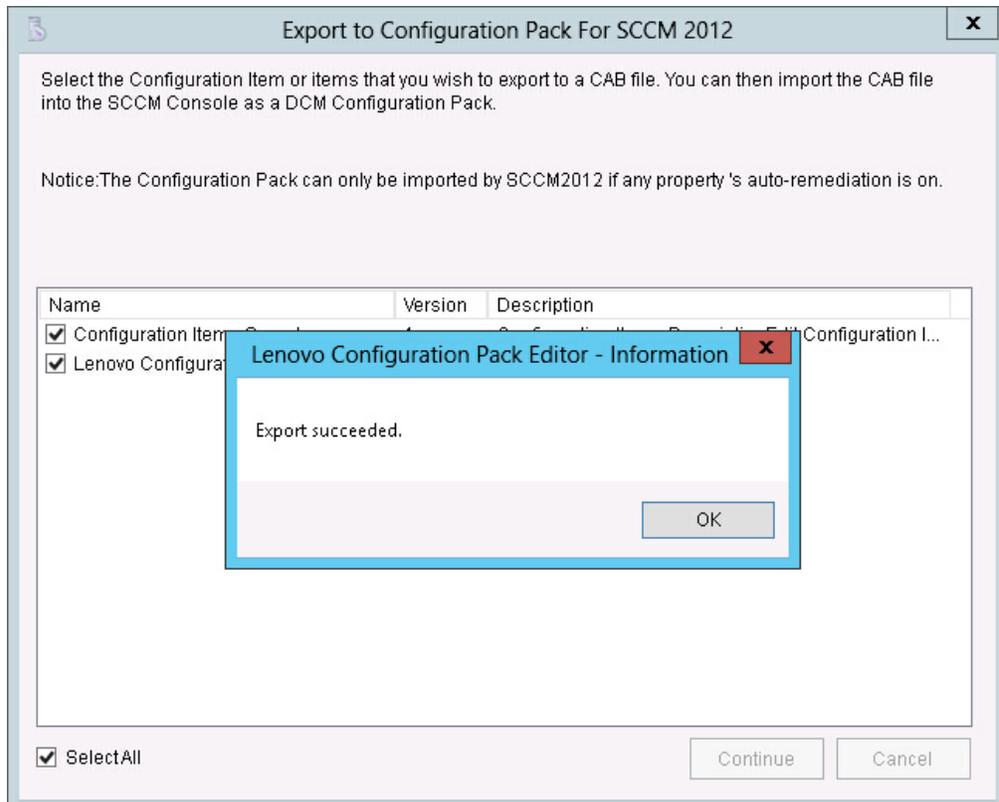


Figure 47. Export Succeeded window

4. Click **OK**.

What to do next

For more information about how to manage a configuration item version, refer to the following web page: [TechNet Library: About Content Versions in Desired Configuration Management](#).

Exporting configuration items to the SCCM Console

The following procedure describes how to export configuration items directly to the SCCM Console.

Procedure

1. From the Lenovo Configuration Pack Editor menu, click **Export > Export to SCCM Console**. The Select the Configuration Item page opens.

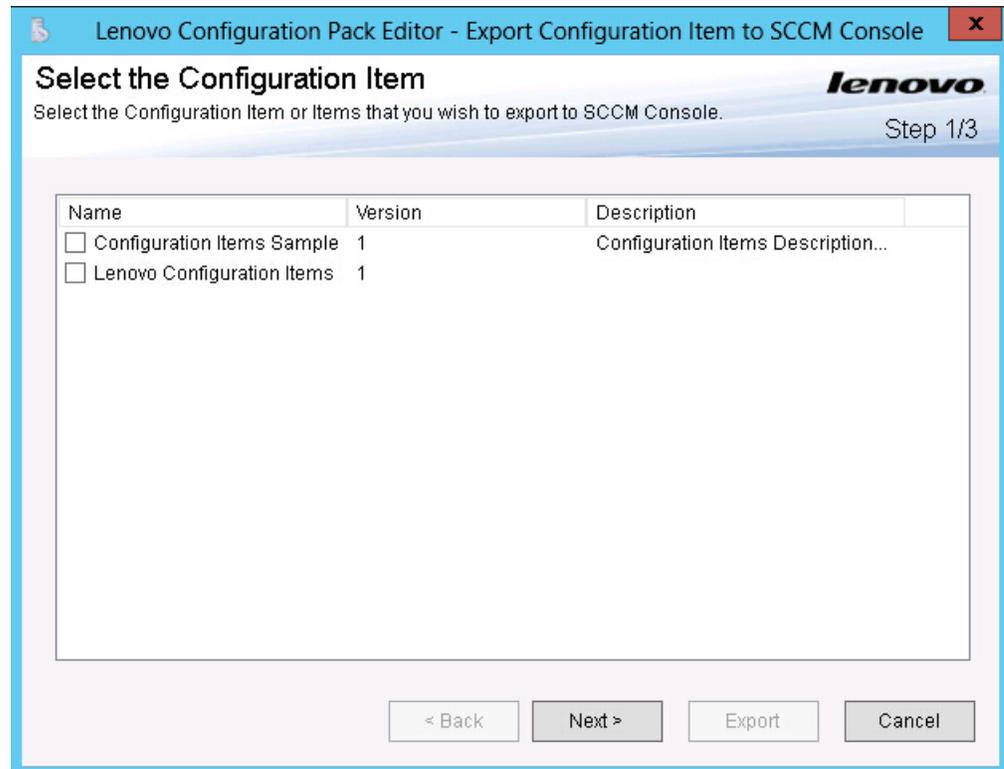


Figure 48. Select the Configuration Item page

2. Select the configuration items you want to export and click **Next**. The SCCM Console position information page opens.

Lenovo Configuration Pack Editor - Export Configuration Item to SCCM Console

SCCM Console position information

Please input the machine information that the SCCM Console installed

Step 2/3

The SCCM Console is on the local machine

The SCCM Console is on a remote machine

Machine Name:

User Name:

Password:

< Back Next > Export Cancel

Figure 49. SCCM Console position information page

3. Select one of the following options:
 - **The SCCM Console is on the local machine**
 - **The SCCM Console is on a remote machine**, and then enter the following information:
 - Machine Name
 - User Name
 - Password
4. Click **Next**. The Configuration Items Information page opens.

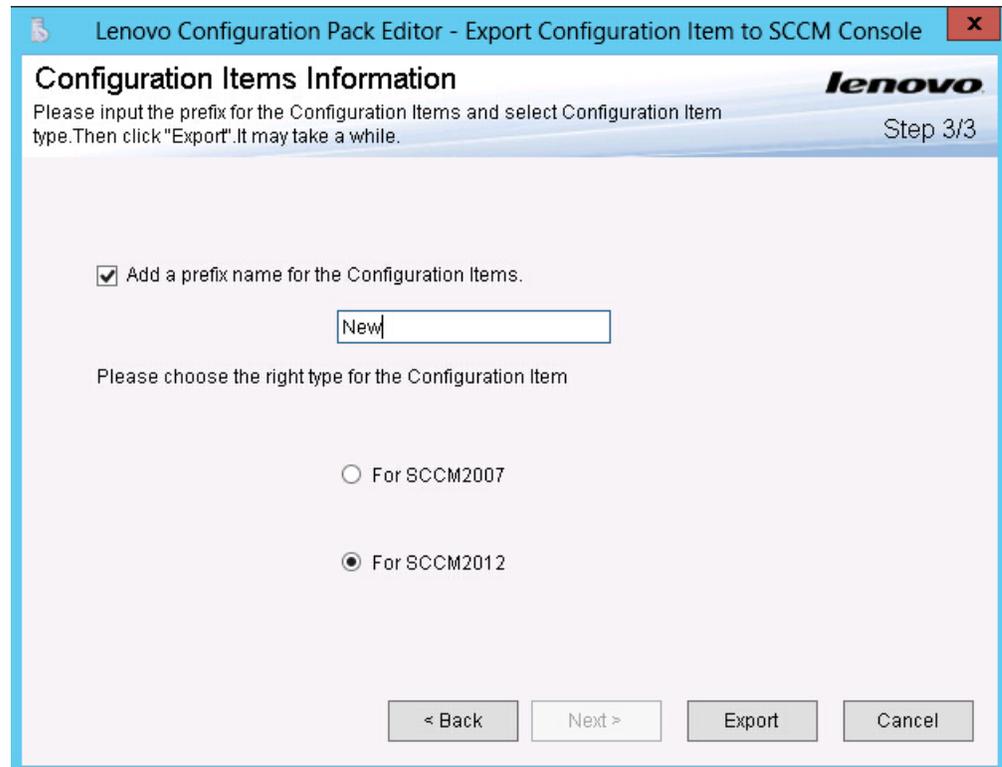


Figure 50. Configuration Items Information page

5. Complete the following steps:
 - a. Select **Add a prefix name for the configuration items**.
 - b. Enter the prefix name.
 - c. Select one of the following SCCM Console types for the configuration item:
 - For SCCM2007
 - For SCCM2012
6. Click **Export**. A message is displayed indicating the Export succeeded..

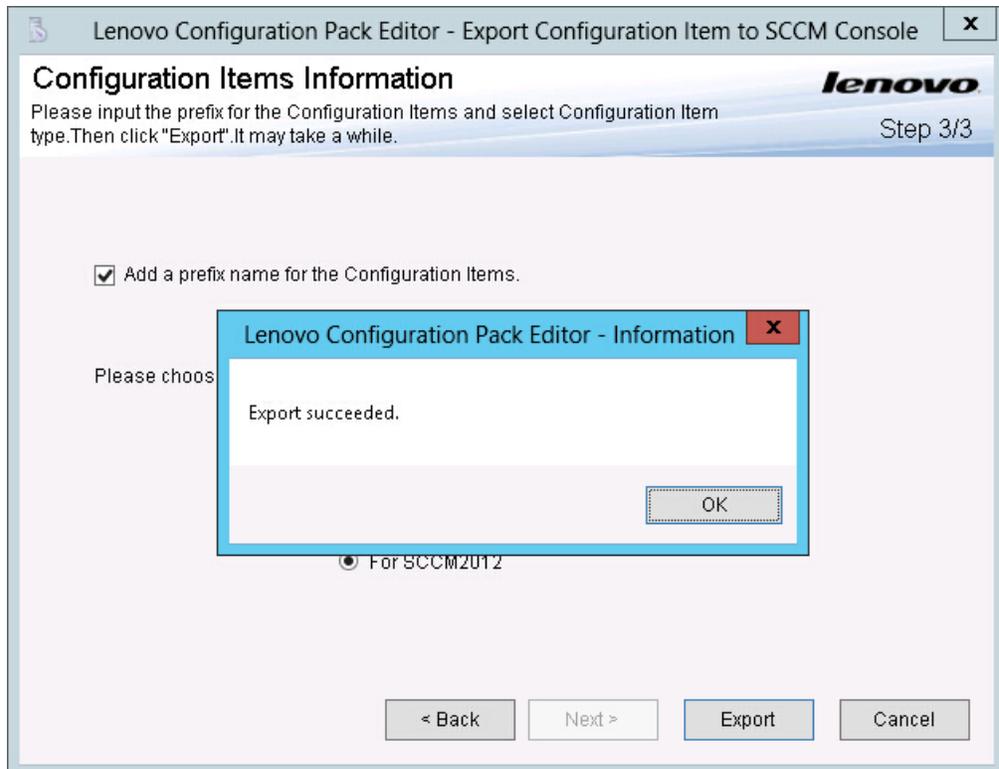


Figure 51. Export Succeeded window

7. Click **OK** to close the Information window.
8. Click **Finish**.

Applying Lenovo Configuration Pack using the Microsoft System Center Configuration Manager 2007 console

The information in this section describes how to import configuration data into a Microsoft System Center Configuration Manager (SCCM) server using the Configuration Manager Console.

Importing configuration data into DCM

The following procedure describes how to import configuration data into Desired Configuration Management (DCM).

Procedure

1. Open the Configuration Manager Console and expand **Desired Configuration Management**.

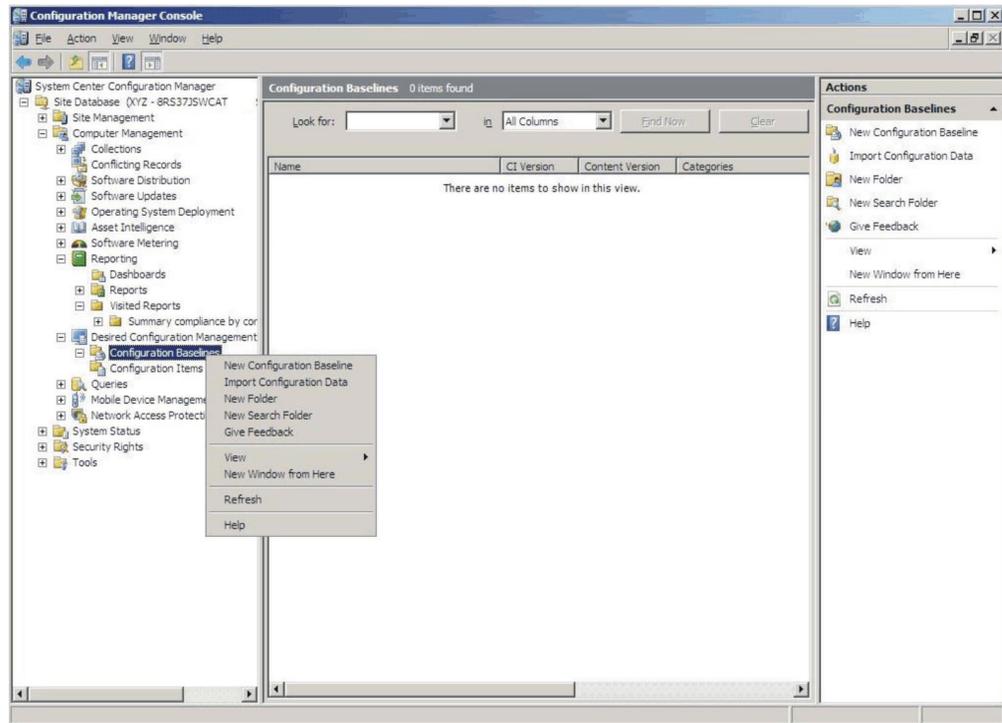


Figure 52. Import Configuration Data selection

2. Right-click **Configuration Baselines** or **Configuration Items** and click **Import Configuration Data**. The Import Configuration Data Wizard opens.

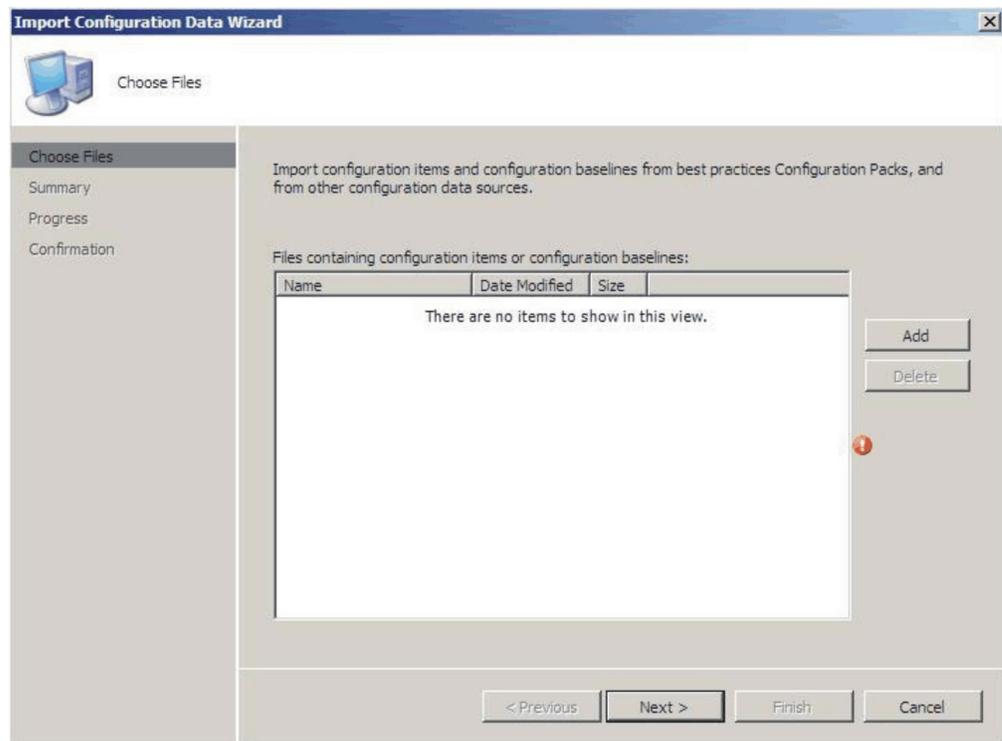


Figure 53. Import Configuration Data Wizard

3. Click **Add** to select the exported Lenovo Configuration Pack .cab file. The Open .cab file window is displayed.

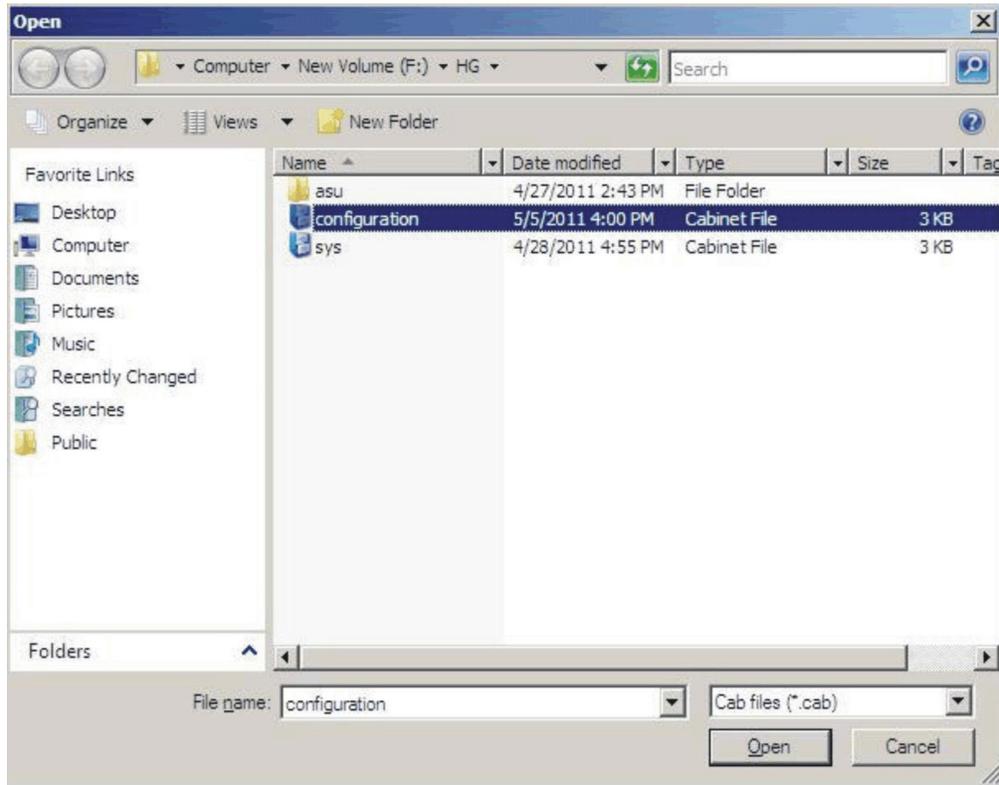


Figure 54. Selecting the .cab file

4. Click **configuration.Cabinet File** and click **Open** to import the file. A Skip Authenticode signature check? window opens.

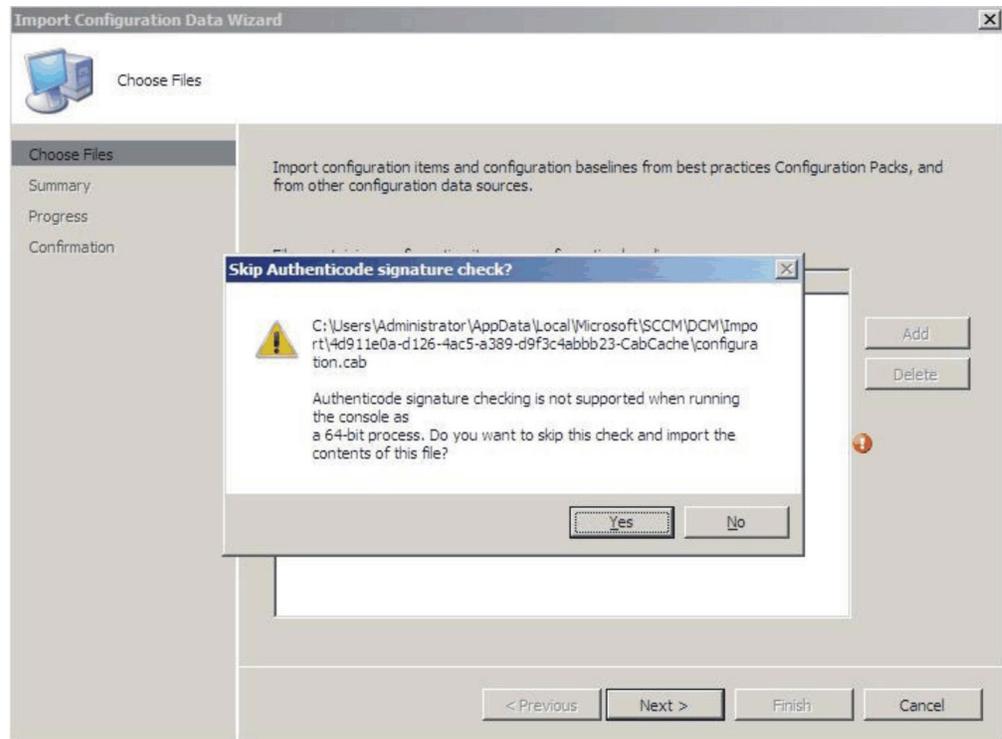


Figure 55. Skip Authenticode signature check window

5. Click **Yes** to skip the signature check and return to the Choose Files page. The Configuration.cab file is displayed in the list.

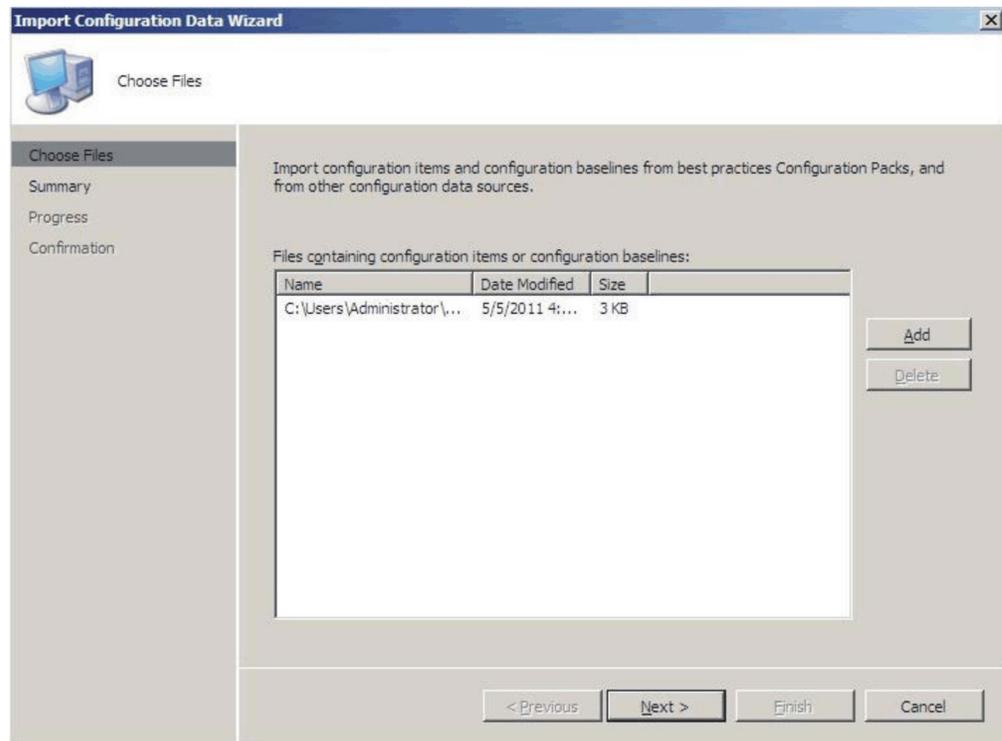


Figure 56. Importing the selected .cab file

6. Click **Next** to import the .cab file. The configuration items are displayed in the Details window.

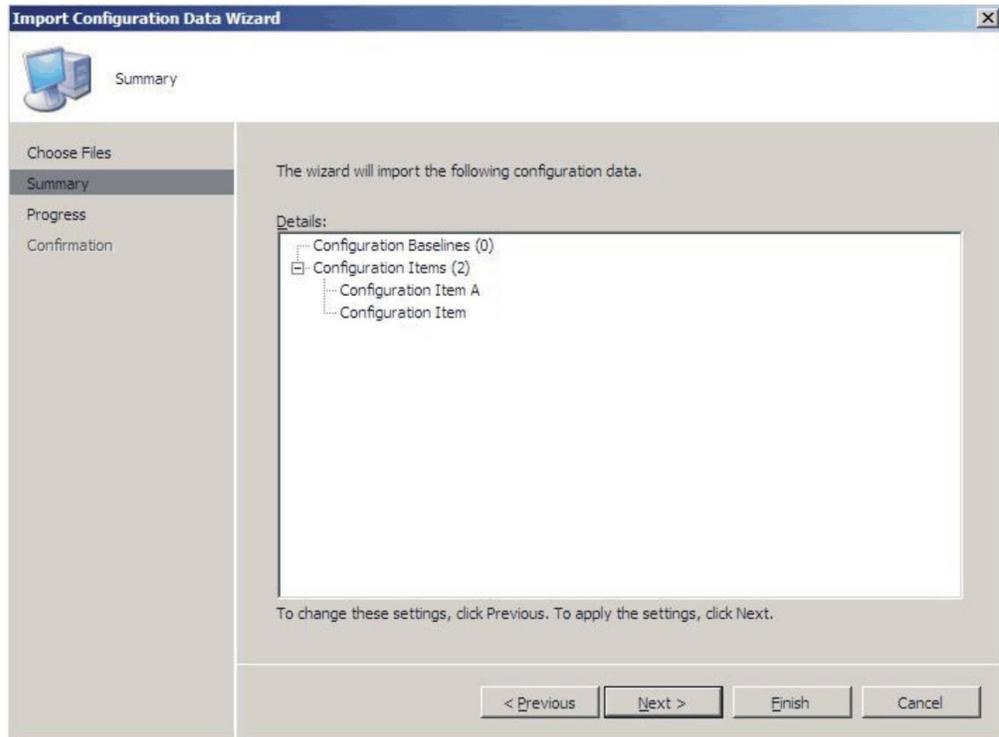


Figure 57. Imported configuration items

7. Click **Next** to apply the settings. A message is displayed indicating that you have successfully imported the configuration data.

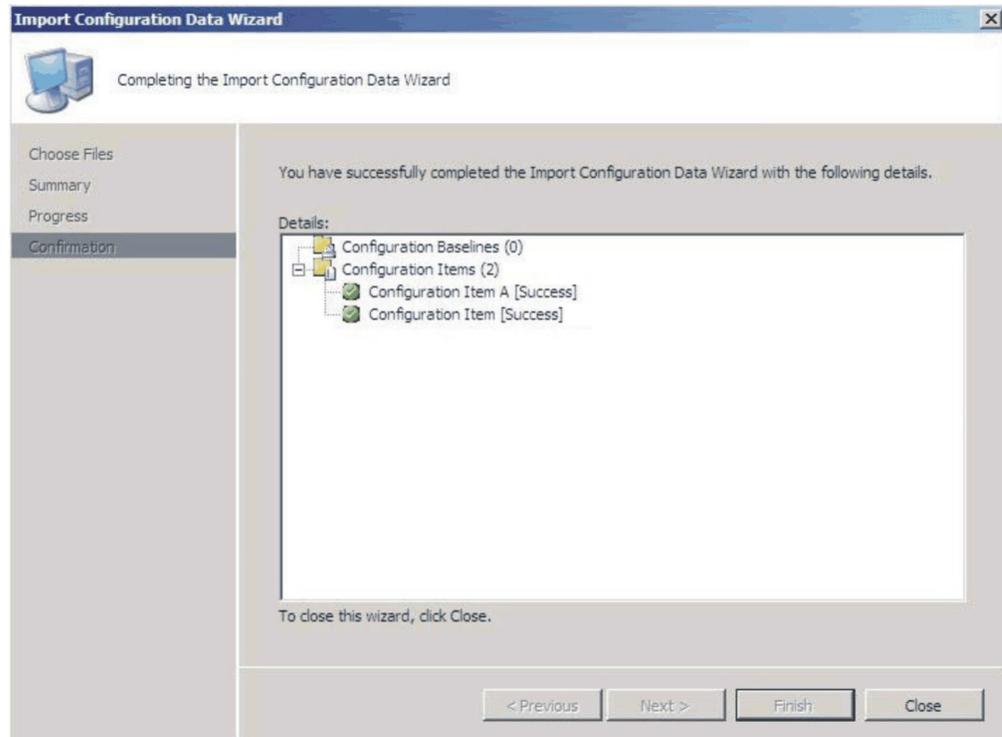


Figure 58. Successful completion page

8. Click **Finish** to exit the Import Configuration Data Wizard and return to the Configuration Manager Console.
9. In the navigation pane, right-click **Configuration Items** and click **Refresh**. The imported configuration items are displayed in the center pane.

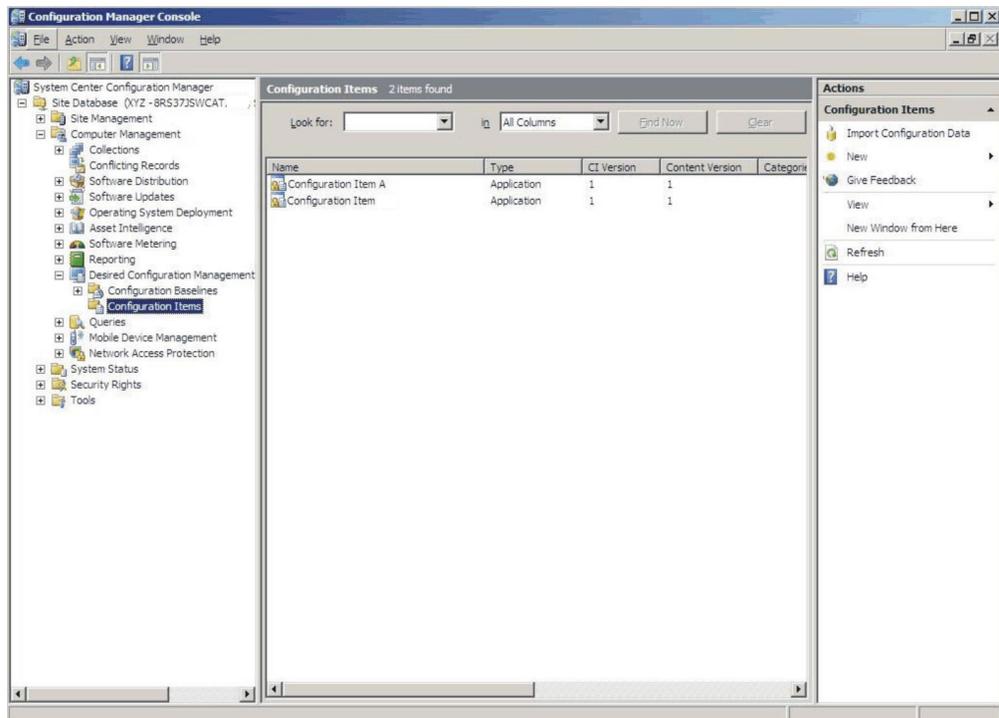


Figure 59. Imported configuration items in the Configuration Manager Console

Note: The imported configuration items might have a Lock status. The Lock status is due to one of the following reasons:

- The configuration data is read-only.
- The configuration data were not authored by the SCCM console administrator.

Viewing configuration item properties

The following procedure describes how to view and edit configuration item properties.

Procedure

1. To view the properties for a configuration item, double-click a **configuration item** from the Configuration Items list. The Lenovo Configuration Item Properties page opens.
2. Click the **Settings** tab. The **Settings** tab provides a list of settings associated with the selected configuration item.

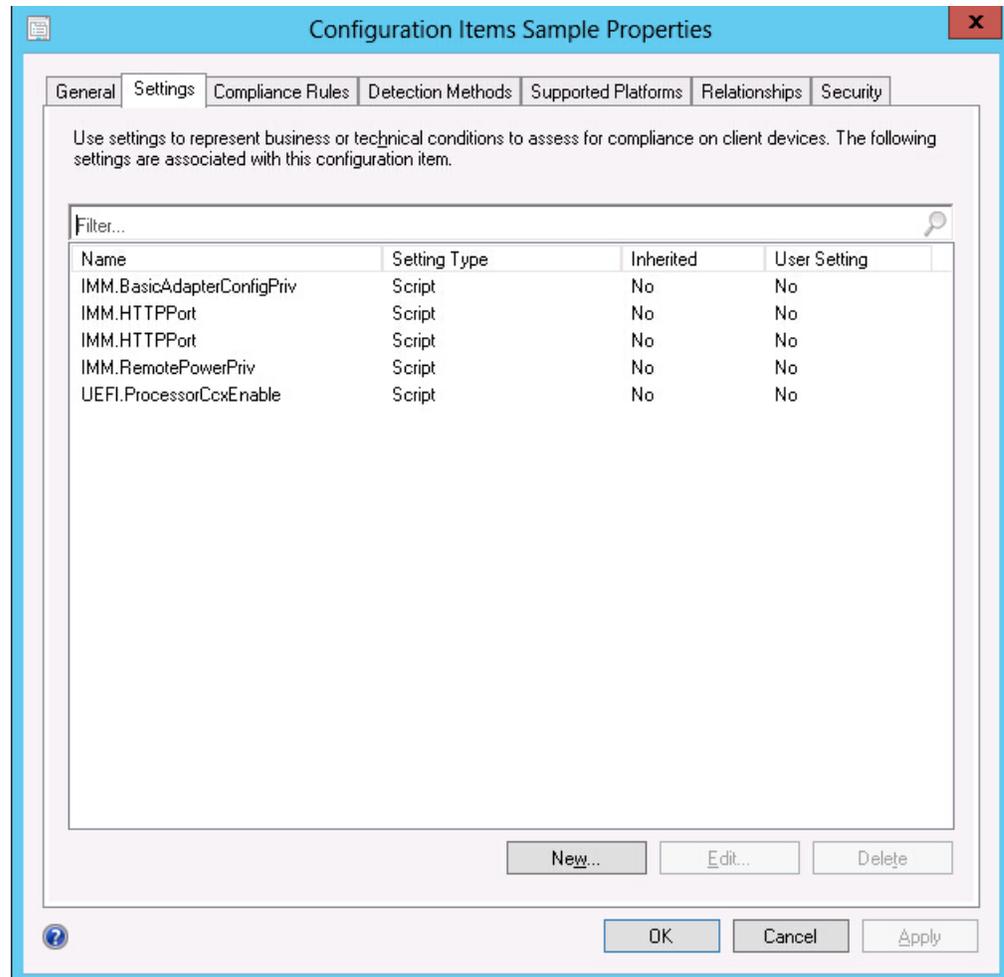


Figure 60. Settings tab

3. To view a setting, double-click a setting or right-click a setting and click **Edit**.
4. Click the **Detection Methods** tab.

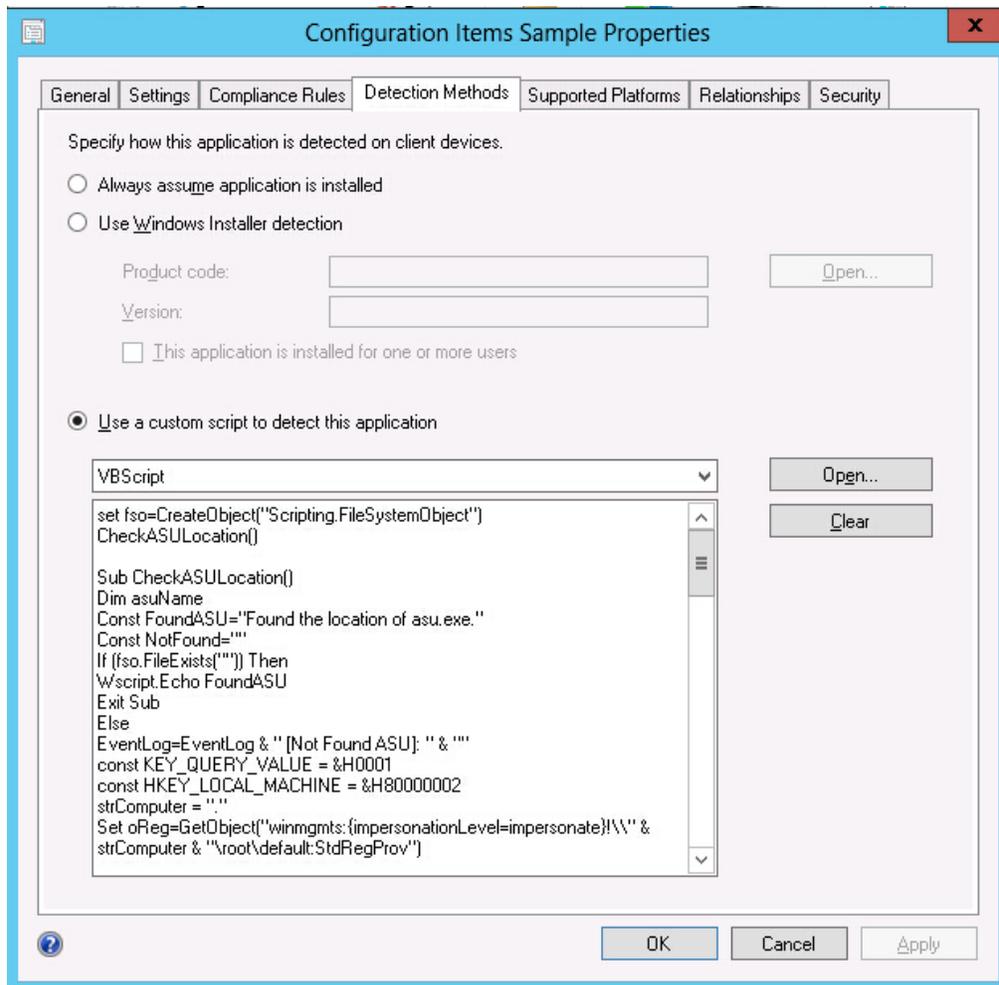


Figure 61. Detection Method tab

The **Detection Methods** tab lists the detection method for each configuration item. **Detection Methods** verifies whether the ASU.exe file exists on the endpoint. If the ASU.exe does not exist, the configuration item returns a state of Not Detected, and the children settings group ceases to be validated.

5. When you have finished viewing the configuration item properties, click **OK**.

Creating a baseline

A configuration item is assigned to an endpoint using a baseline. The following procedure describes how to create a baseline which contains all of the configuration items that you want to validate on the endpoints.

Procedure

1. In the Configuration Manager Console, expand Desired Configuration Management, right-click **Configuration Baselines** and click **New Configuration Baseline**.

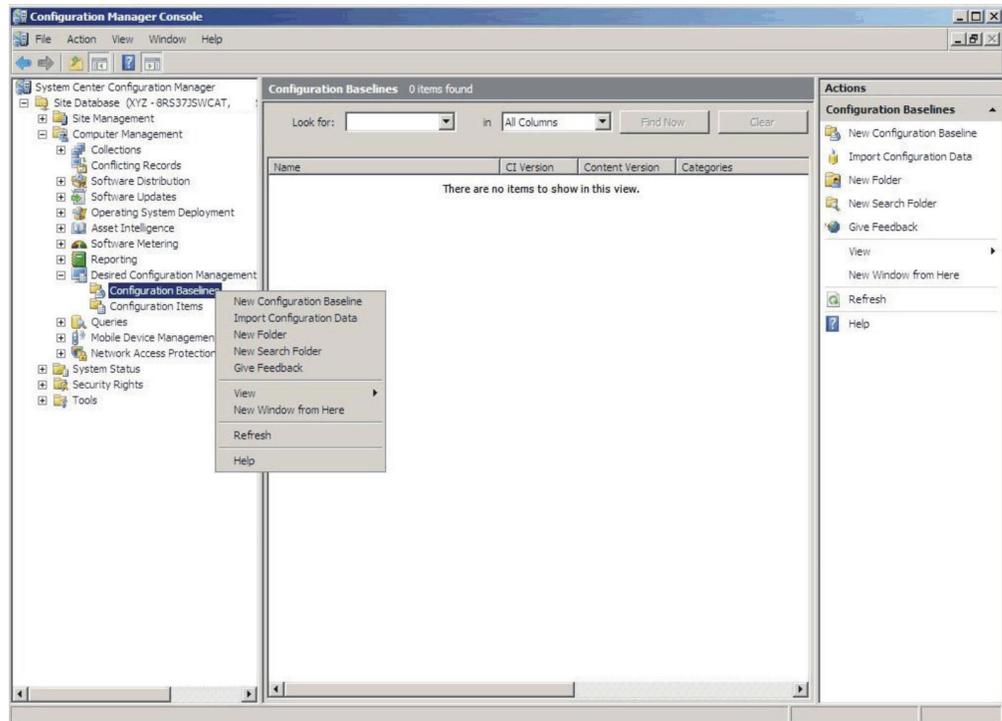


Figure 62. New Configuration Baseline function

The Create Configuration Baseline Wizard opens.

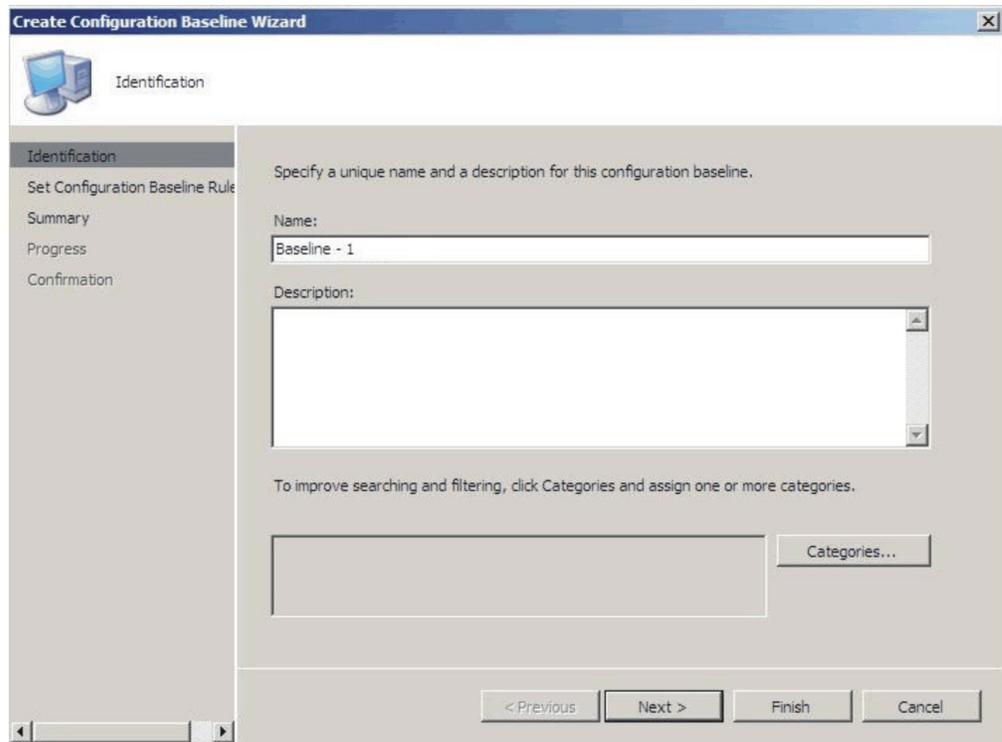


Figure 63. Create Configuration Baseline Wizard

2. Enter a unique **Name** and, optionally, a **Description** for the baseline and then click **Next**.

3. Click the **applications and general** link to select the configuration items that you want to validate.
The Choose configuration items page opens.

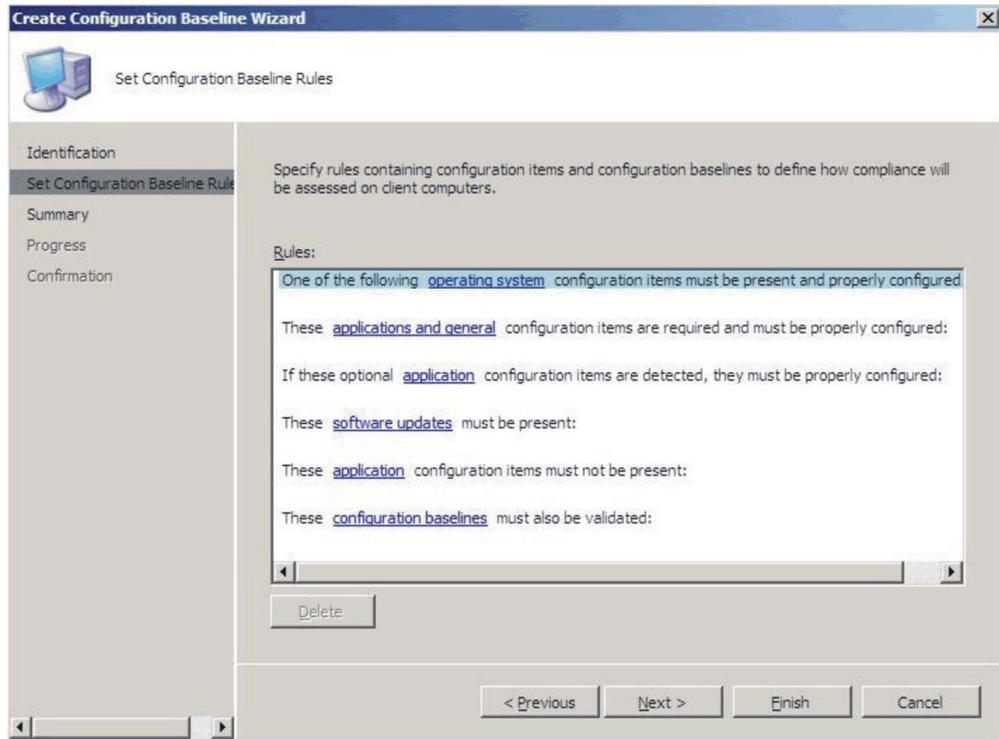


Figure 64. Applications and general link

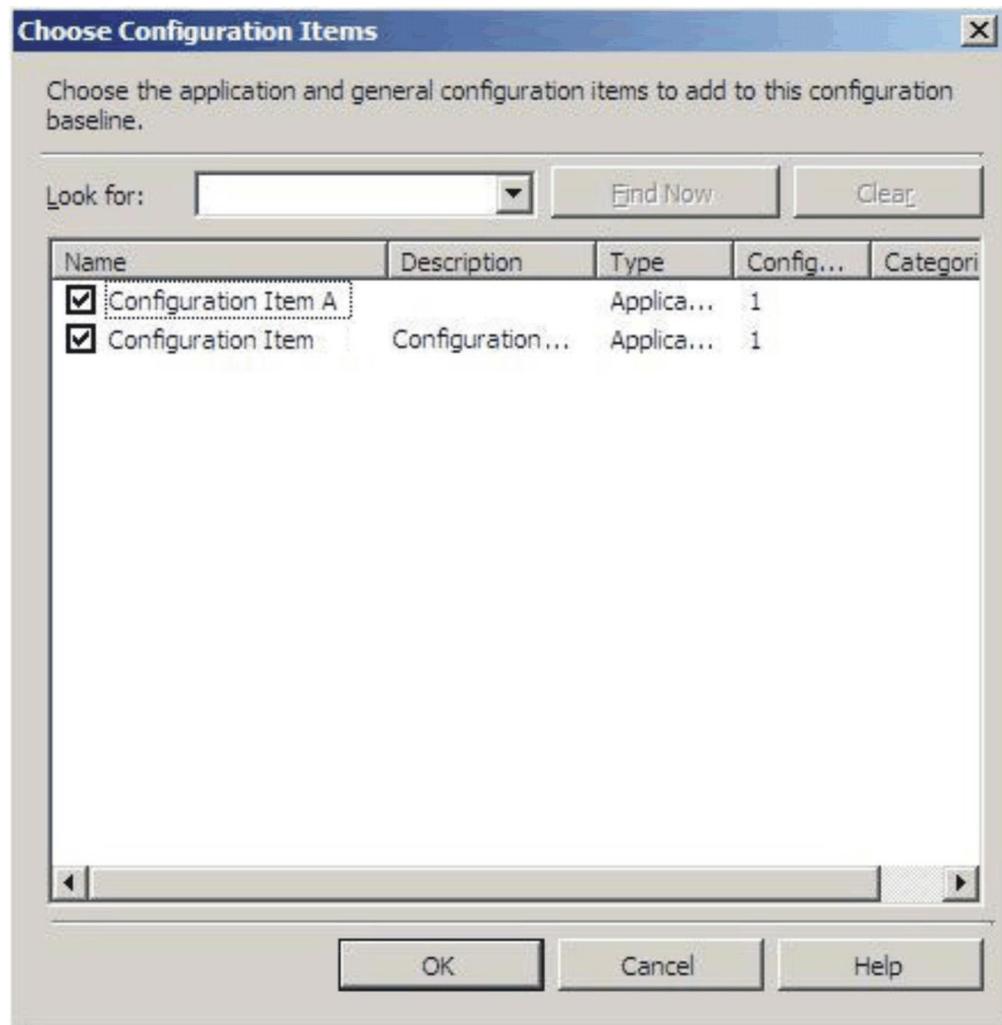


Figure 65. Choose configuration items page

4. Select the configuration items you want to validate on the endpoints and click **OK**. The selected configuration items are displayed beneath the **applications and general** link.

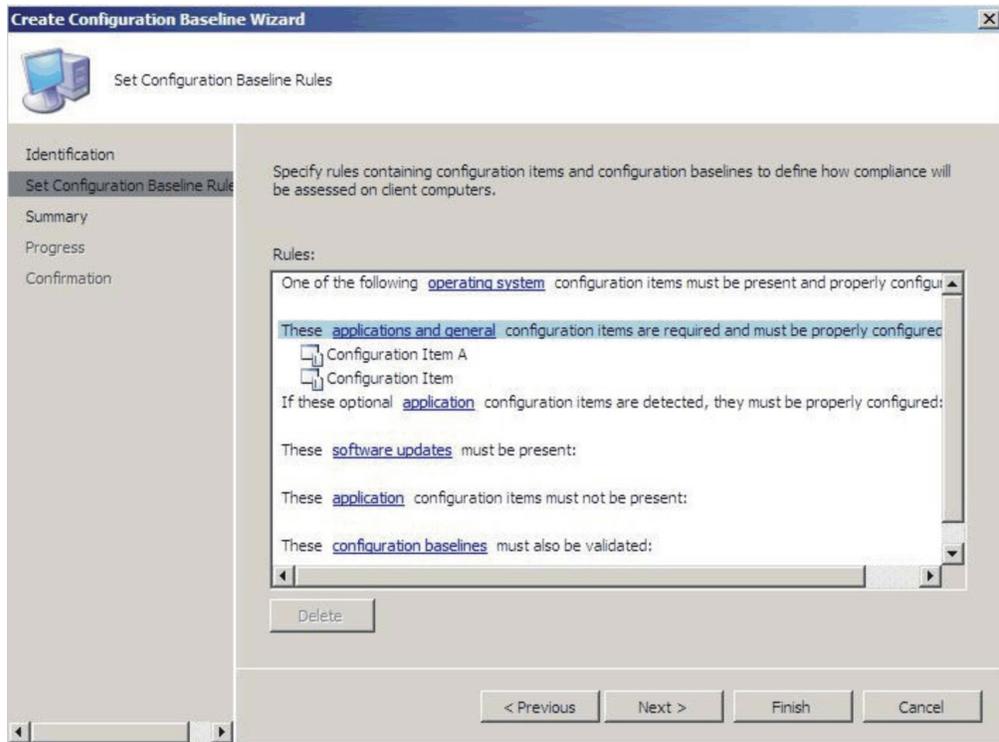


Figure 66. Applications and general link with configuration items

5. Click **Finish** to exit the Create Configuration Baseline Wizard.

Assigning a baseline to a collection

You can assign a baseline to a collection to check the settings of clients in that collection. The following procedure describes how to assign a baseline to a collection.

Procedure

1. In the Configuration Manager Console, right-click the new baseline and click **Assign to a Collection**.

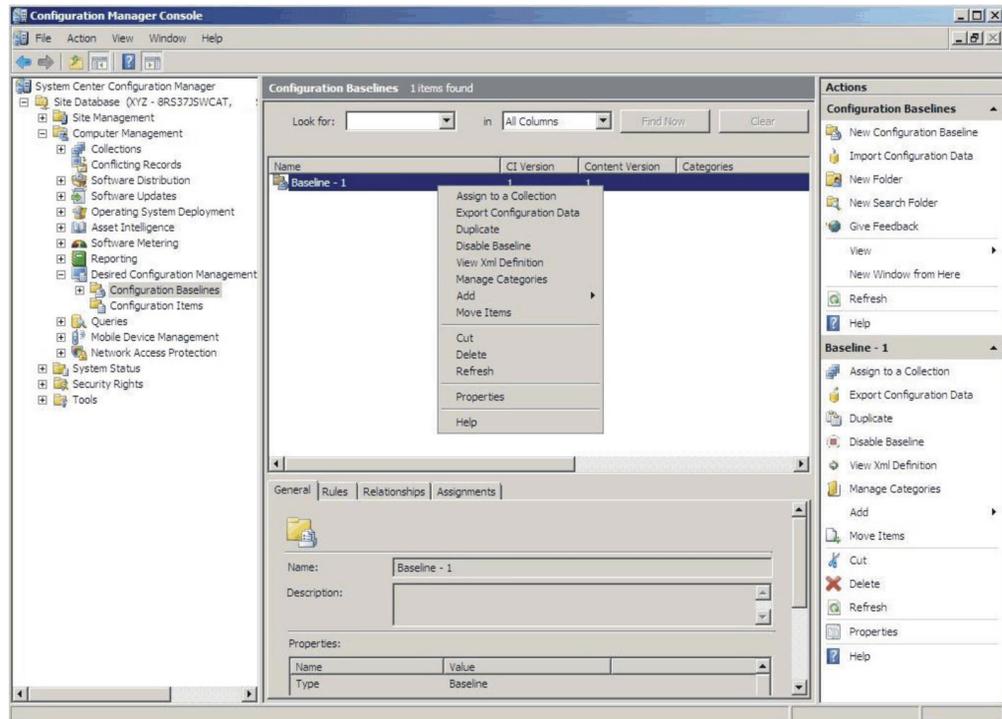


Figure 67. Assign to a Collection function

The Choose Collection page of the Assign Configuration Baseline Wizard opens.

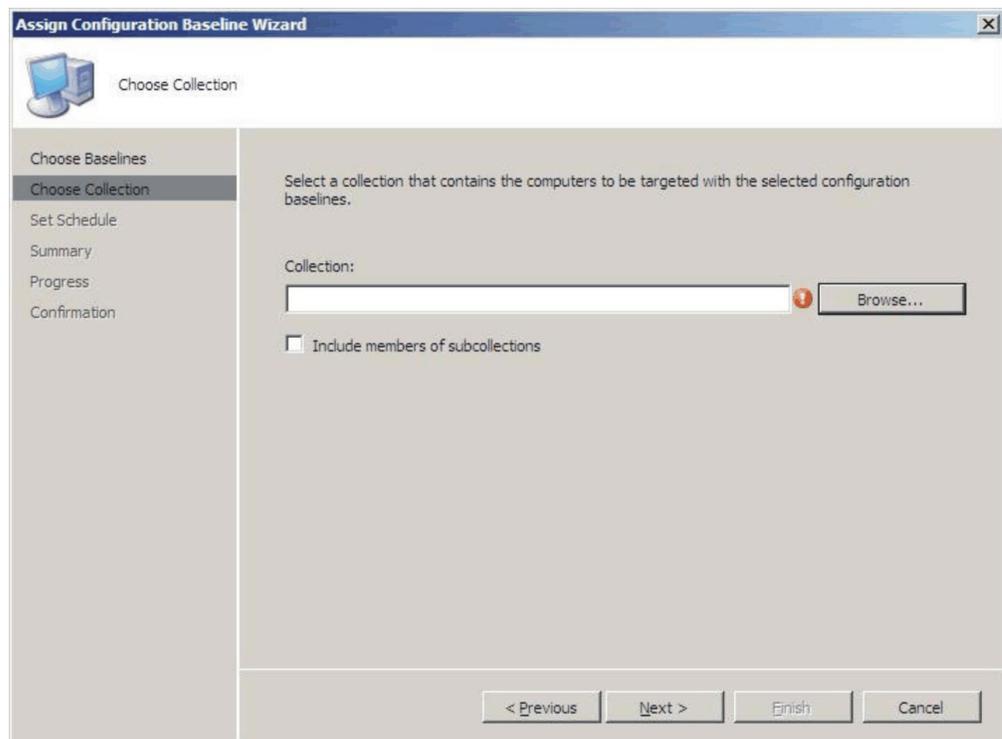


Figure 68. Choose Collection page

2. Click **Browse** to select a target client collection and then click **Next**.

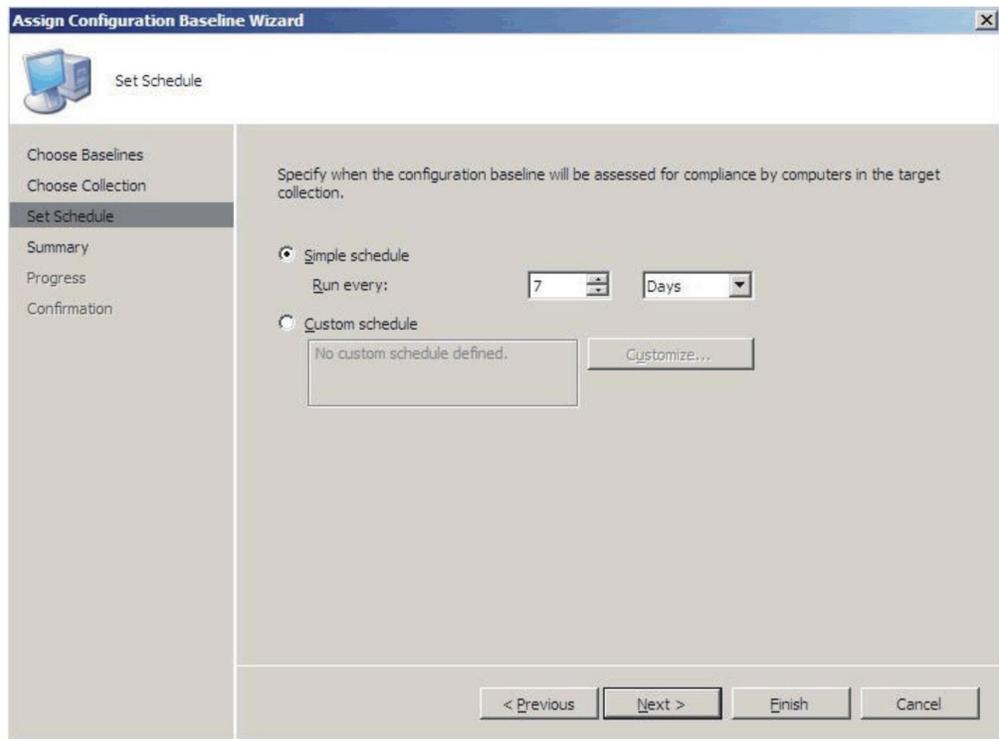


Figure 69. Set Schedule page

3. Select a schedule for the baseline validation.
 - Simple schedule
 - Custom schedule
4. Click **Finish** to exit the Assign Configuration Baseline Wizard.

Evaluating a baseline on an endpoint

A baseline and its child configuration items are automatically evaluated (the settings for configuration items are checked) according to the schedule you created or selected. You can also advance a baseline evaluation as follows:

Procedure

1. To ensure that an endpoint can be found on the SCCM server and that the SCCM client agent is installed, select the applicable endpoint.
 - For a 32-bit endpoint, click **Control Panel > Configuration Manager**.
 - For a 64-bit endpoint, click **Control Panel > View 32-bit Control Panel Items > Configuration Manager**.

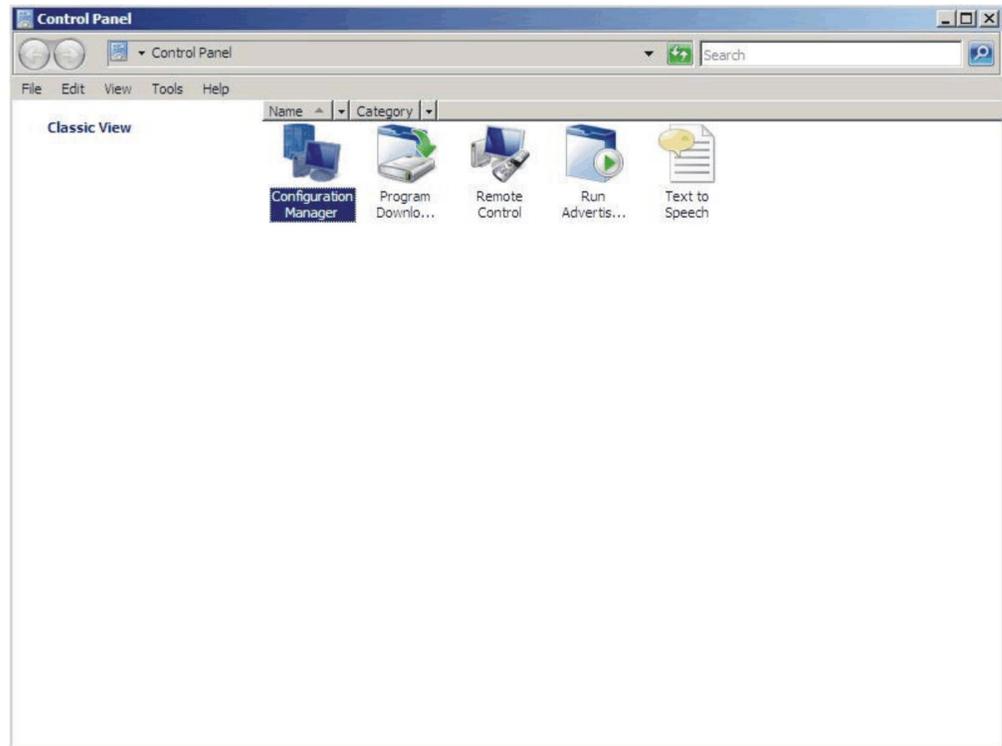


Figure 70. Configuration Manager in Control Panel folder

The Configuration Manager Properties window opens.

2. On the **Actions** tab, select **Machine Policy Retrieval & Evaluation Cycle** and then click **Initiate Action**. A message is displayed notifying you that the action has been initiated.

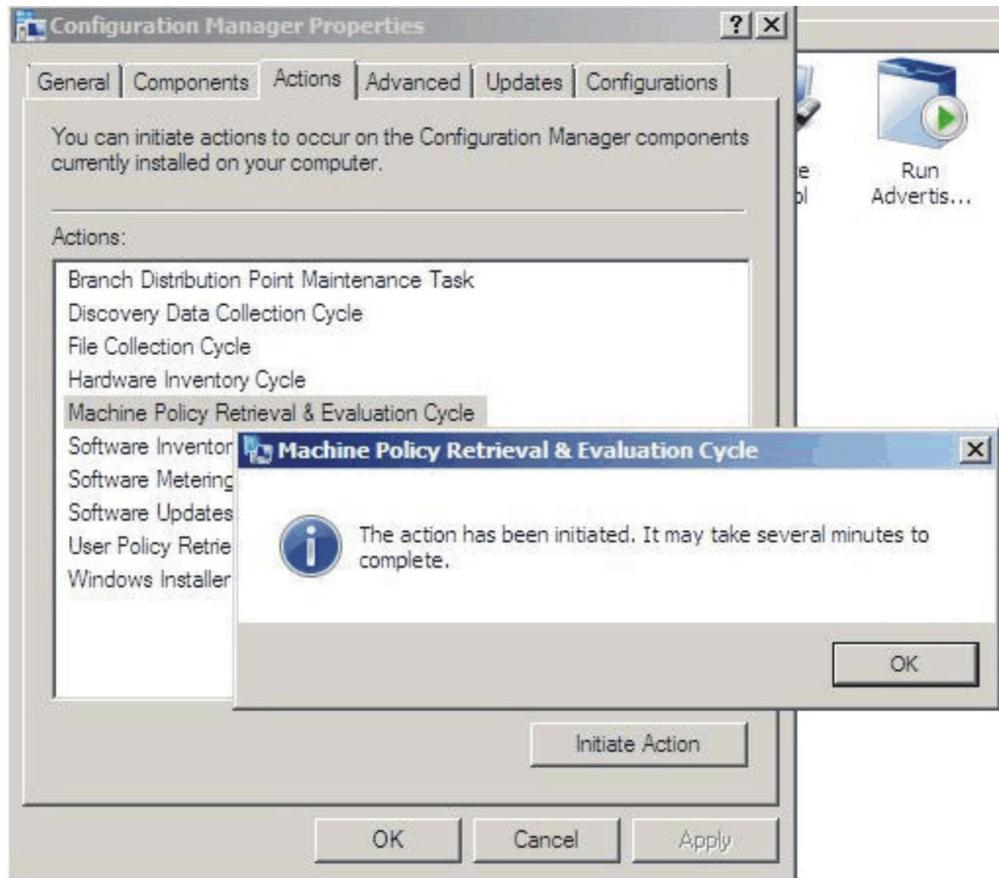


Figure 71. Action Initiated window

3. Click **OK**. After a few minutes, the baseline is displayed under the **Configurations** tab.
4. If the baseline is not displayed, click **Refresh**.

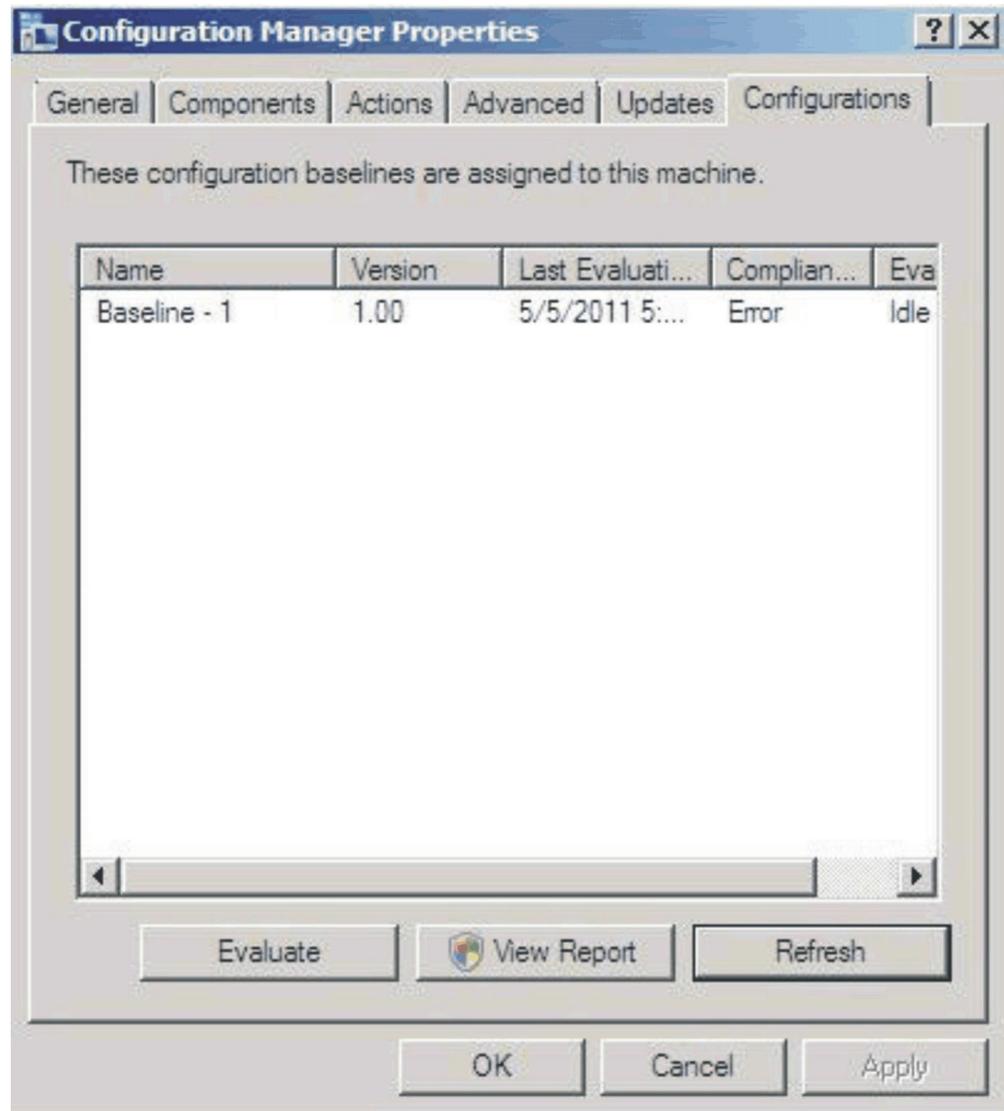


Figure 72. Configurations tab

Note: If the baseline does not display in the Configuration Baseline list view after few minutes, verify that the SCCM client agent can be found on Configuration Manager Console, as shown in the following figure.

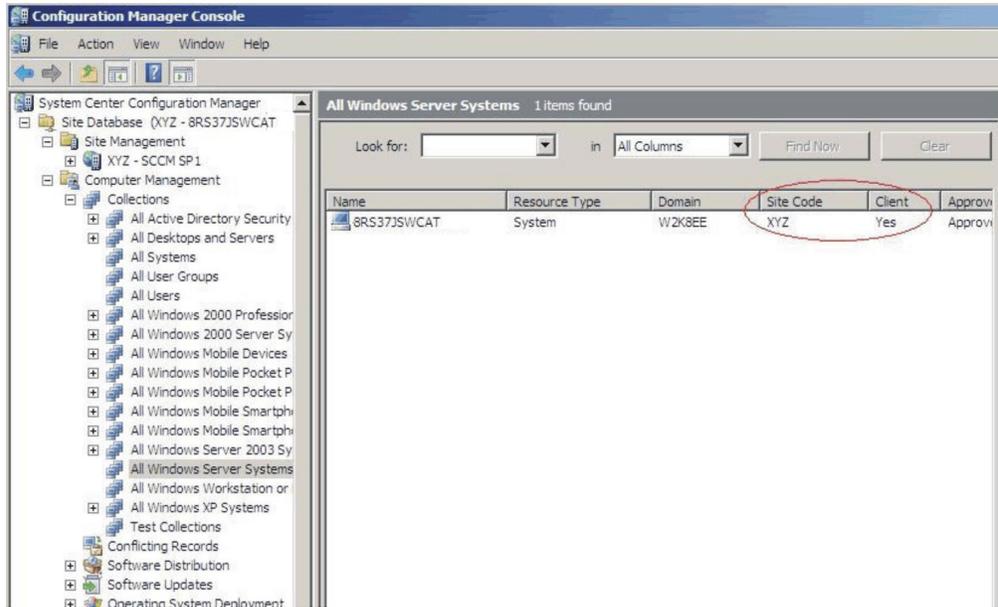


Figure 73. SCCM Client Agent Status

5. Select the baseline and click **Evaluate**. After a few minutes, the **View Report** button is available.

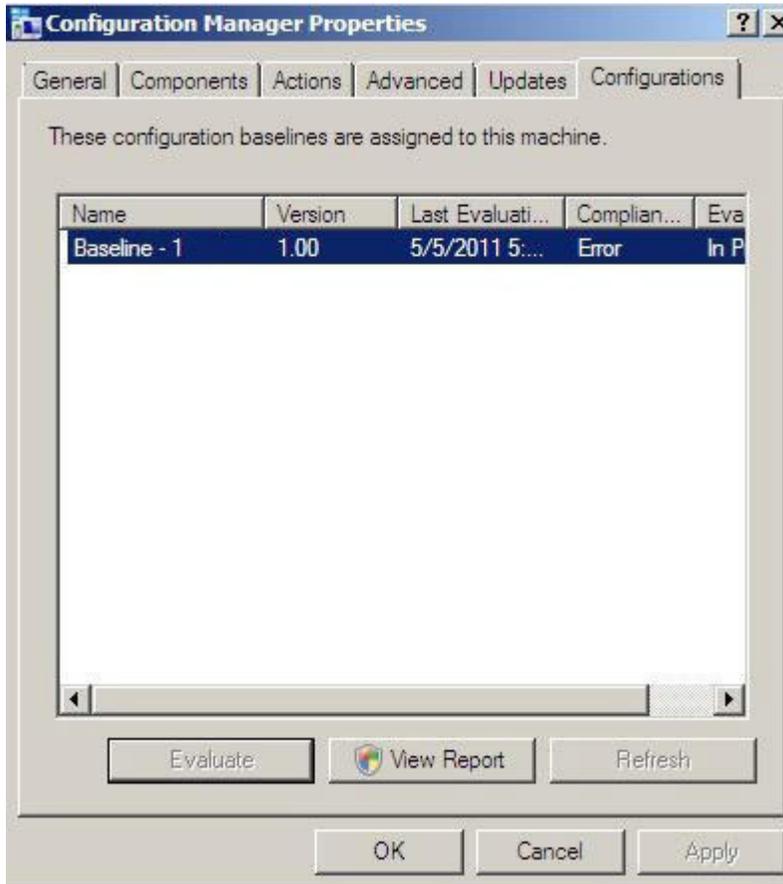


Figure 74. Configurations tab with available View Report button

6. Select the baseline and click **View Report** to review the report.

The Evaluation Report view

An evaluation report is generated for the baseline you select. However, there are some situations when the evaluated setting (script) does not return any value.

There are several reasons why this might occur:

- The endpoint does not have an Integrated Management Module (IMM).
- The endpoint has the IMM, but the evaluated setting cannot be found on the endpoint.
- The wrong user ID and password were used to connect to the IMM.
- The ASU.exe file version is not v3.60 or later.
- The evaluation timed out (5 minutes). System Center Configuration Manager (SCCM) sets the time limit.

Setting/Object Name	Setting/Object Type	Setting/Object Description	Constraint Name	Constraint Description	Severity	Constraint	Instance Data	Current Value
IMM.CIMOverHTTPPort	Script	Configure the IMM port assignment for "IBM Systems Director over HTTP." min="0" max="65535" default="5988"	Instance count validation	The validation of the number of instances of an object or setting	Information	(number(count (ns_ScopeId_550a3dbb-8f51-47a7-86ac-ee6929722ab_this:Setting_a006e5d1-83e7-4c9b-bc0c-748ec061f2be)) >number(0))		0
IMM.PowerRestorePolicy	Script	mode of operation if a power loss occurs. This setting can also be configured via BIOS F1 setup. Restores system to the same state it was before power failed.	Instance count validation	The validation of the number of instances of an object or setting	Information	(number(count (ns_ScopeId_550a3dbb-8f51-47a7-86ac-ee6929722ab_this:Setting_afeee205-85be-4fa3-9782-8de1bf9d0792)) >number(0))		0

Figure 75. Evaluated setting with no value returned

Note: If the evaluated setting does not return a value, the SCCM client agent deems the setting as non-compliant on the endpoint, and ranks its severity level as Information. The evaluation report does not specify the cause. To determine the cause, you must check the logs in the Windows Event Viewer for details. The following figure provides an example of the Windows Event Viewer logs.

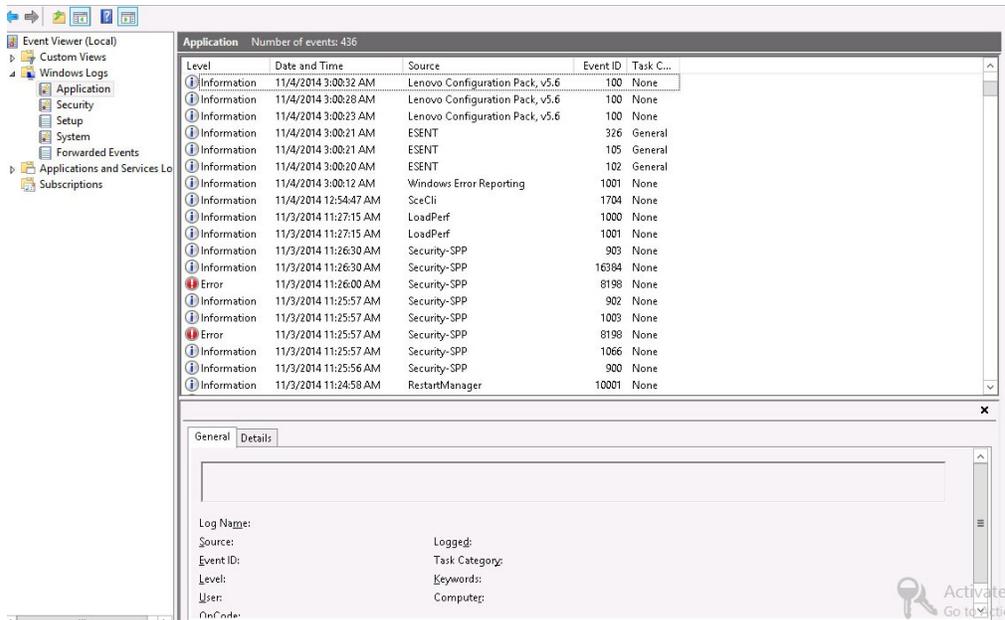


Figure 76. Windows Event Viewer logs

Running Homepage Summarization

The Homepage Summarization function provides a summary of the configuration compliance status for each System Center Configuration Manager (SCCM) client.

Procedure

1. In the Configuration Manager Console, right-click **Desired Configuration Management** and click **Run Homepage Summarization**.

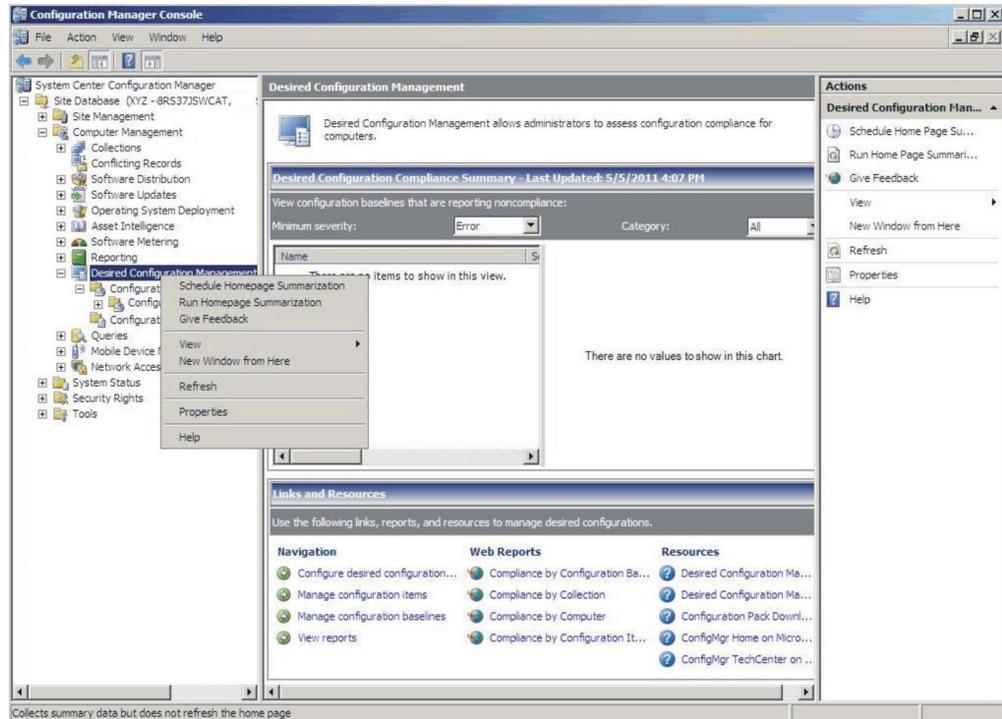


Figure 77. Run Homepage Summarization function

2. After a few minutes, right-click **Desired Configuration Management** again and click **Refresh**. The assigned baseline report is displayed.

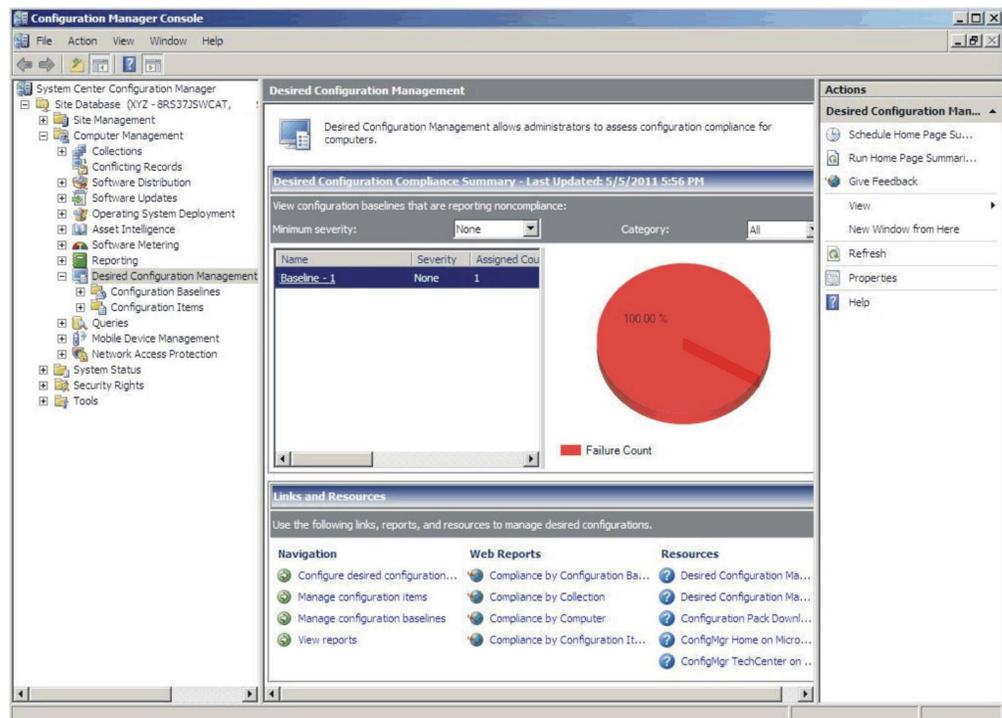


Figure 78. Baseline report

3. To view the report, in the View configuration baselines that are reporting noncompliance window, click the baseline name. The report is displayed to the right.

Note: The Configuration Manager Console must have **Report access** enabled, otherwise you cannot open the report view.

For more information about DCM reports, see TechNet Library: About Reports for Desired Configuration Management..

Applying Lenovo Configuration Pack using the Microsoft System Center Configuration Manager 2012 console

The information in this section describes how to import configuration data into the Microsoft System Center Configuration Manager 2012 (SCCM) server using the Configuration Manager Console.

Importing configuration data into DCM

The following procedure describes how to import configuration data into Desired Configuration Management (DCM).

Procedure

1. Open the Configuration Manager Console and expand **Desired Configuration Management**.

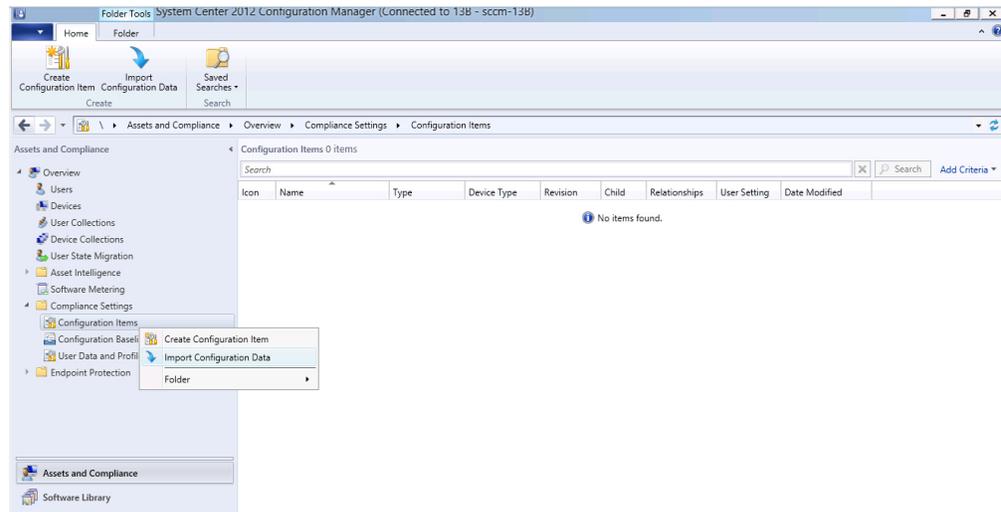


Figure 79. Import Configuration Data function

2. Right-click **Configuration Baselines** or **Configuration Items**, and click **Import Configuration Data**. The Import Configuration Data Wizard opens.

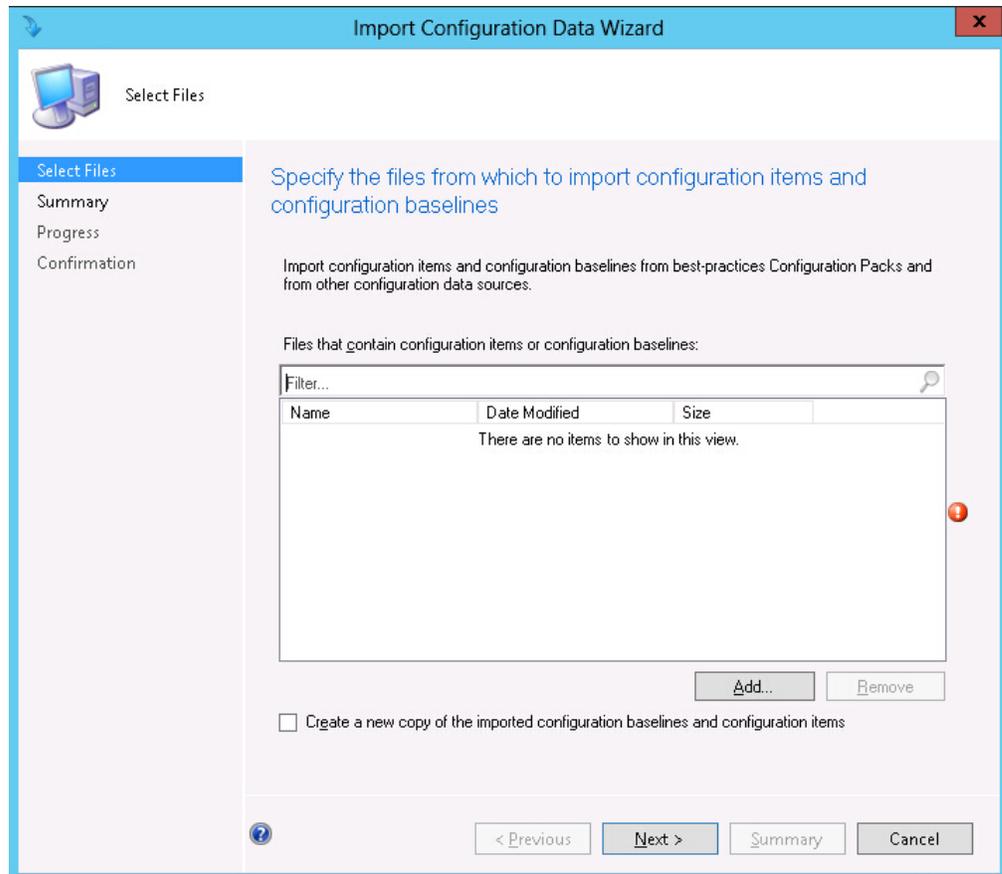


Figure 80. Select Files function

3. Click **Add** to select the exported Lenovo Configuration Pack .cab file. The Open .cab file window is displayed.

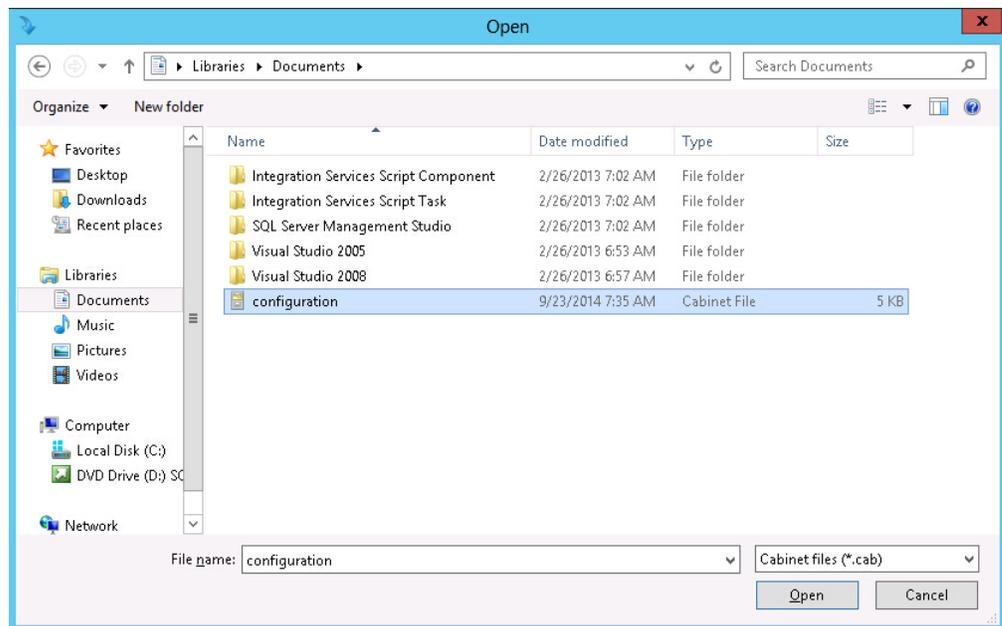


Figure 81. Selecting the exported .cab file

4. Click **Configuration .cab Cabinet File** and click **Open** to import the file. A **Verify Publisher** window opens.

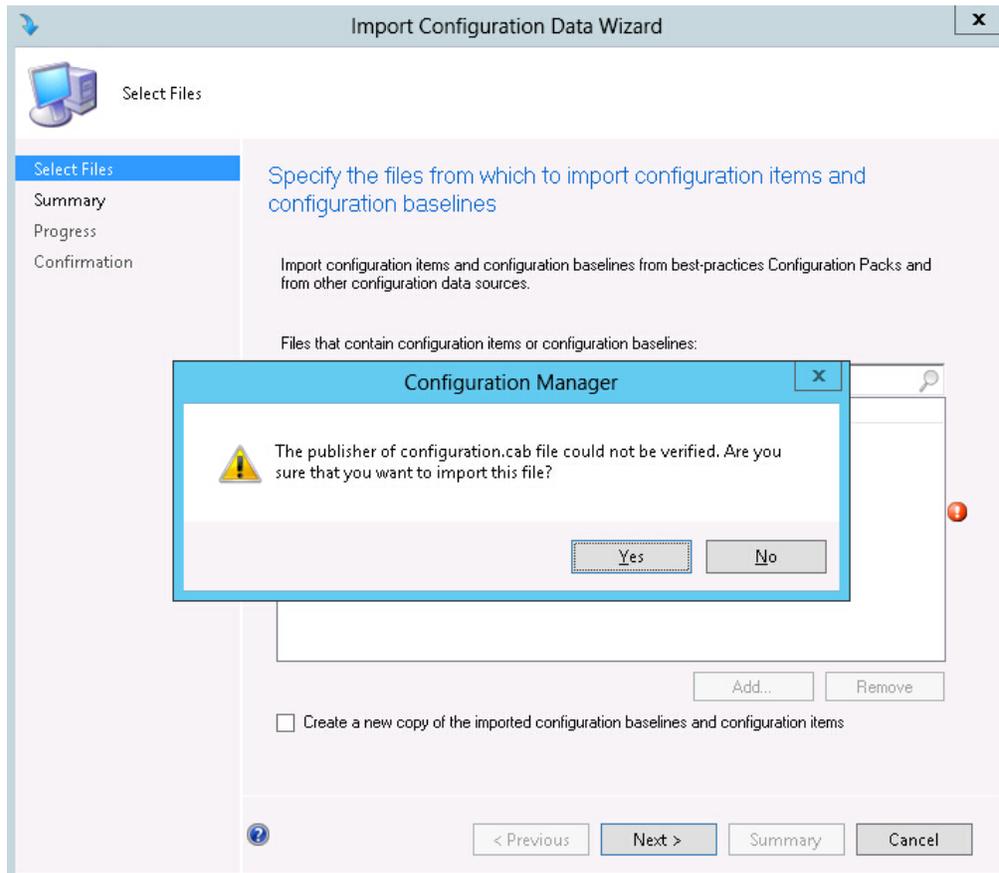


Figure 82. Publisher Check window

5. Click **Yes** to import the file. The Configuration.cab file is displayed in the list.

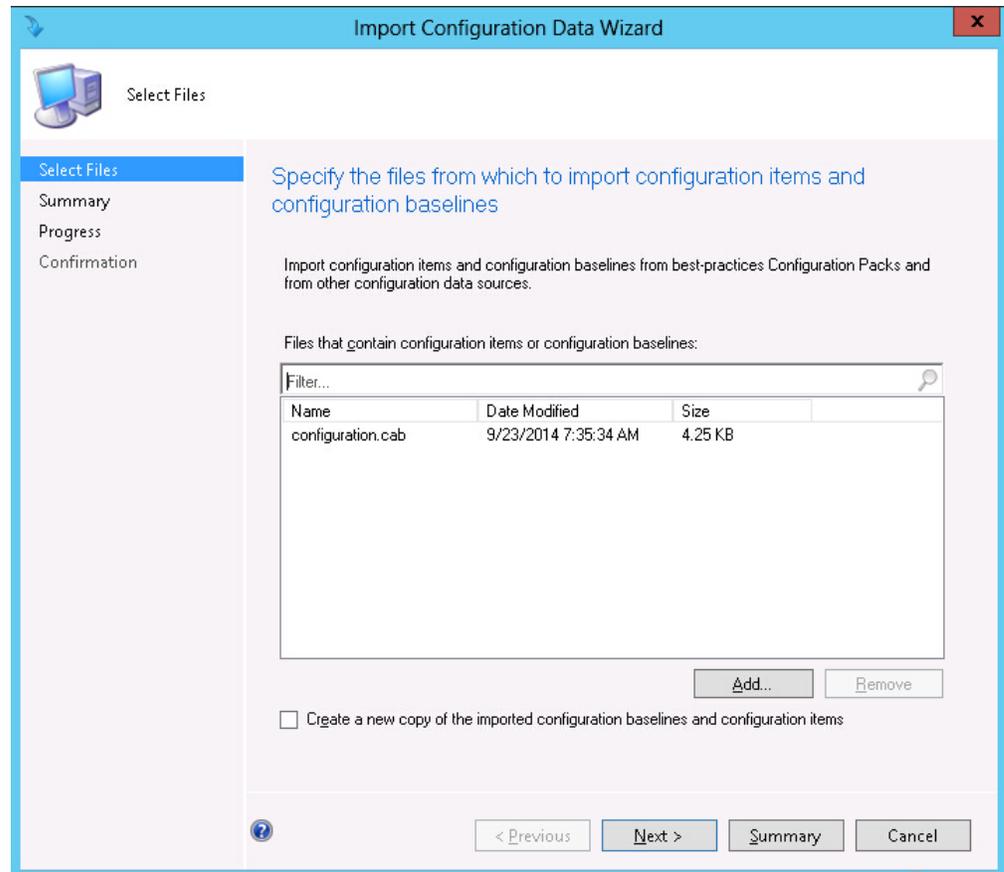


Figure 83. Importing the selected .cab file

6. Click Next to import the .cab file. The configuration items are displayed in the details window.

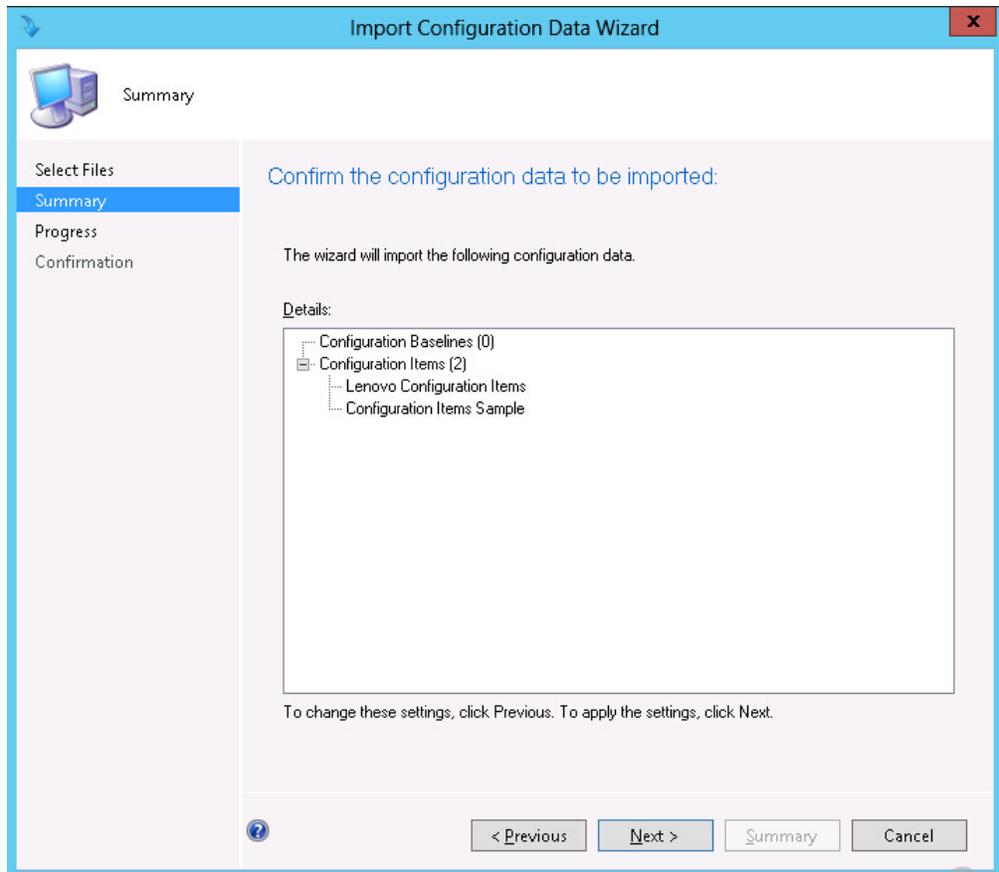


Figure 84. Confirm the configuration data

7. Click **Next** to apply the settings. A message is displayed indicating that you have successfully completed the Import Configuration Data Wizard. The Details window has a list of the imported configuration items.

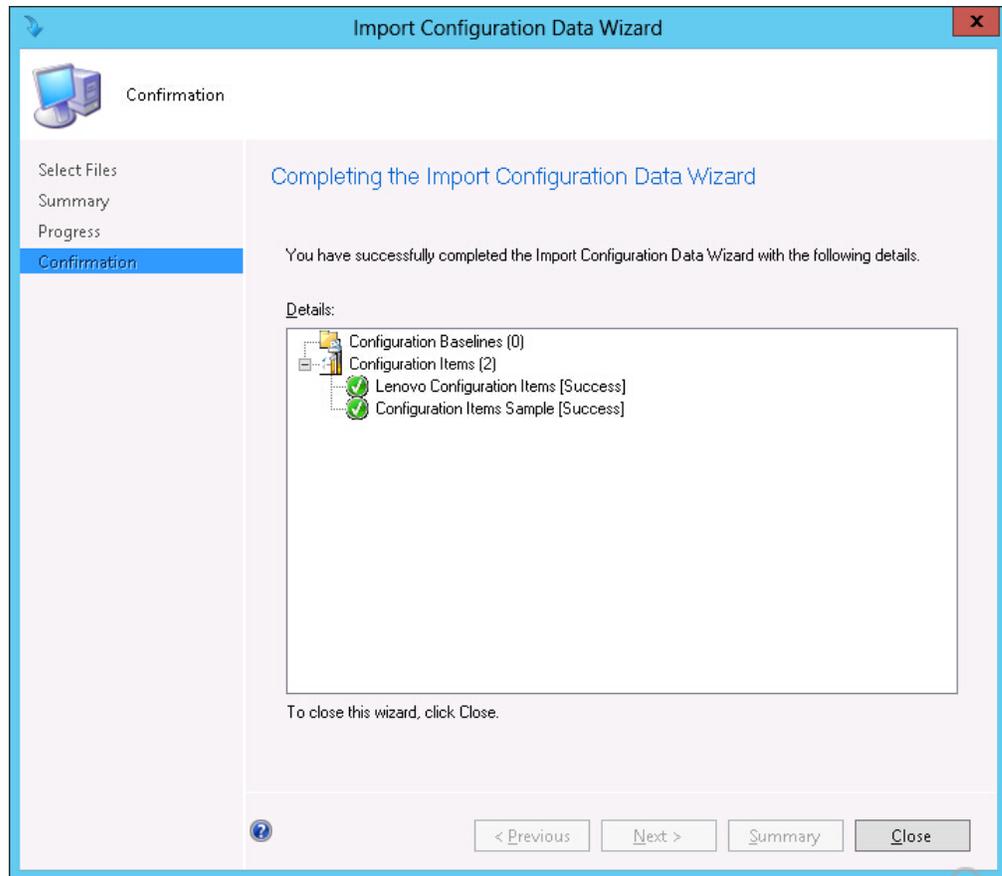


Figure 85. Successful completion

8. Click **Close** to exit the Import Configuration Data Wizard.
9. Right-click **Configuration Items** and click **Refresh**. The imported configuration items are displayed in the window.

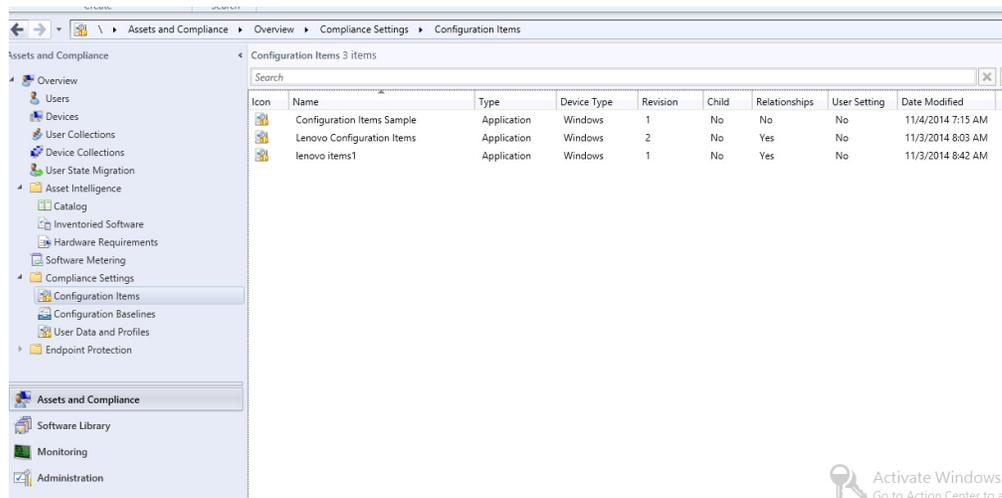


Figure 86. Imported configuration items

Note: The imported configuration items might have a Lock status. The Lock status is due to one of the following reasons:

- The configuration data is read-only.
- The configuration data were not authored by the SCCM console administrator.

Viewing configuration item properties

The following procedure describes how to view and edit configuration item properties.

Procedure

1. To view the properties for a configuration item, double-click a **configuration item** from the Configuration Items list. The Lenovo Configuration Item Properties page opens.
2. Click the **Settings** tab. The **Settings** tab provides a list of settings associated with the selected configuration item.

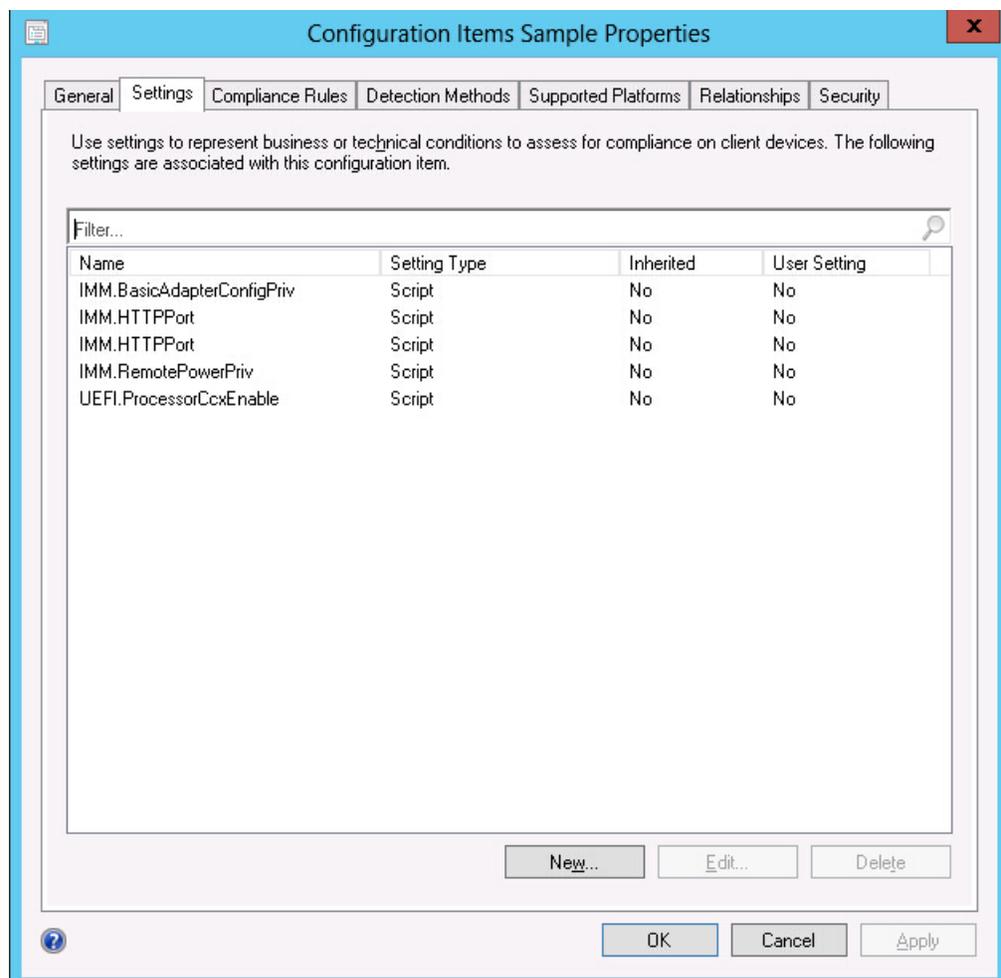


Figure 87. Settings tab

3. To view a setting, double-click a setting or right-click a setting and click **Edit**.
4. Click the **Detection Methods** tab.

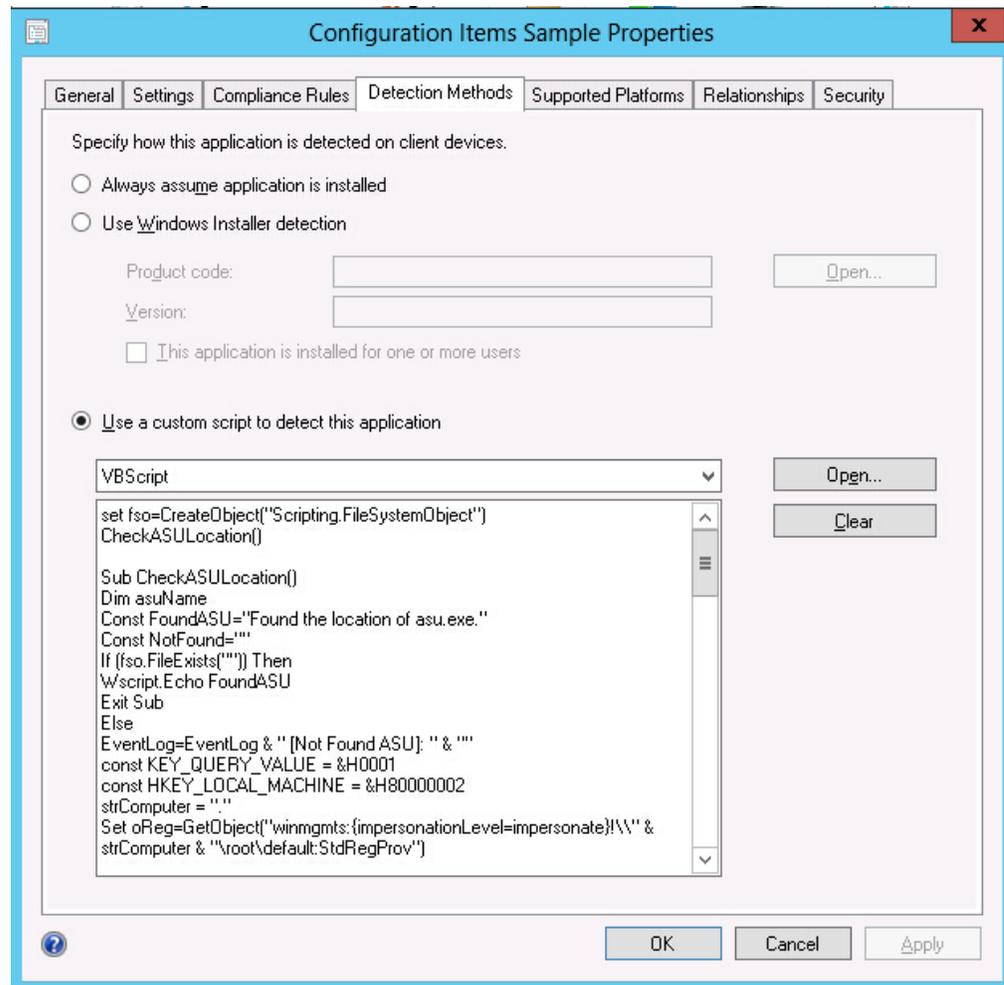


Figure 88. Detection Method tab

The **Detection Methods** tab lists the detection method for each configuration item. **Detection Methods** verifies whether the ASU.exe file exists on the endpoint. If the ASU.exe does not exist, the configuration item returns a state of Not Detected, and the children settings group ceases to be validated.

5. When you have finished viewing the configuration item properties, click **OK**.

Creating a baseline

A configuration item is assigned to an endpoint using a baseline. The following procedure describes how to create a baseline which contains all of the configuration items that you want to validate on the endpoints.

Procedure

1. In the Configuration Manager Console, expand Desired Configuration Management.
2. Right-click **Configuration Baselines** and click **New Configuration Baseline**.

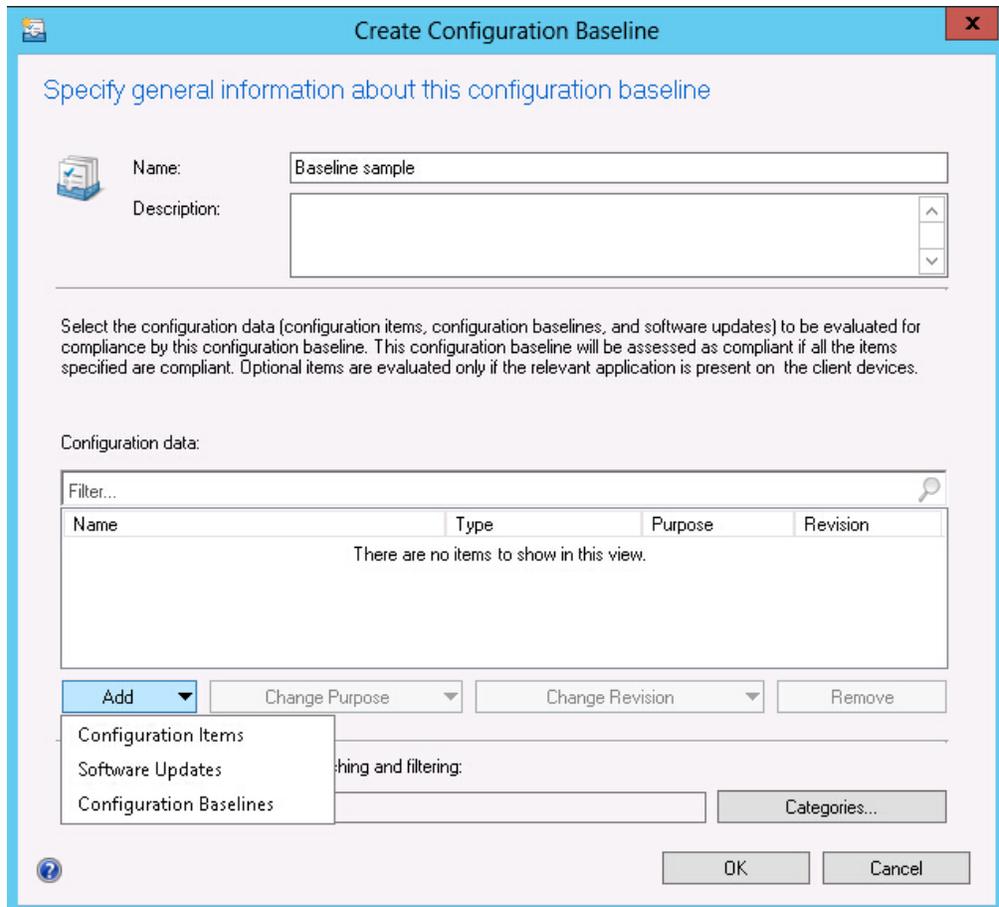


Figure 89. Create Configuration Baseline function

The Create Configuration Baseline wizard opens.

3. Enter a unique **Name** and, optionally, a **Description** for the baseline, and then click **Add**.

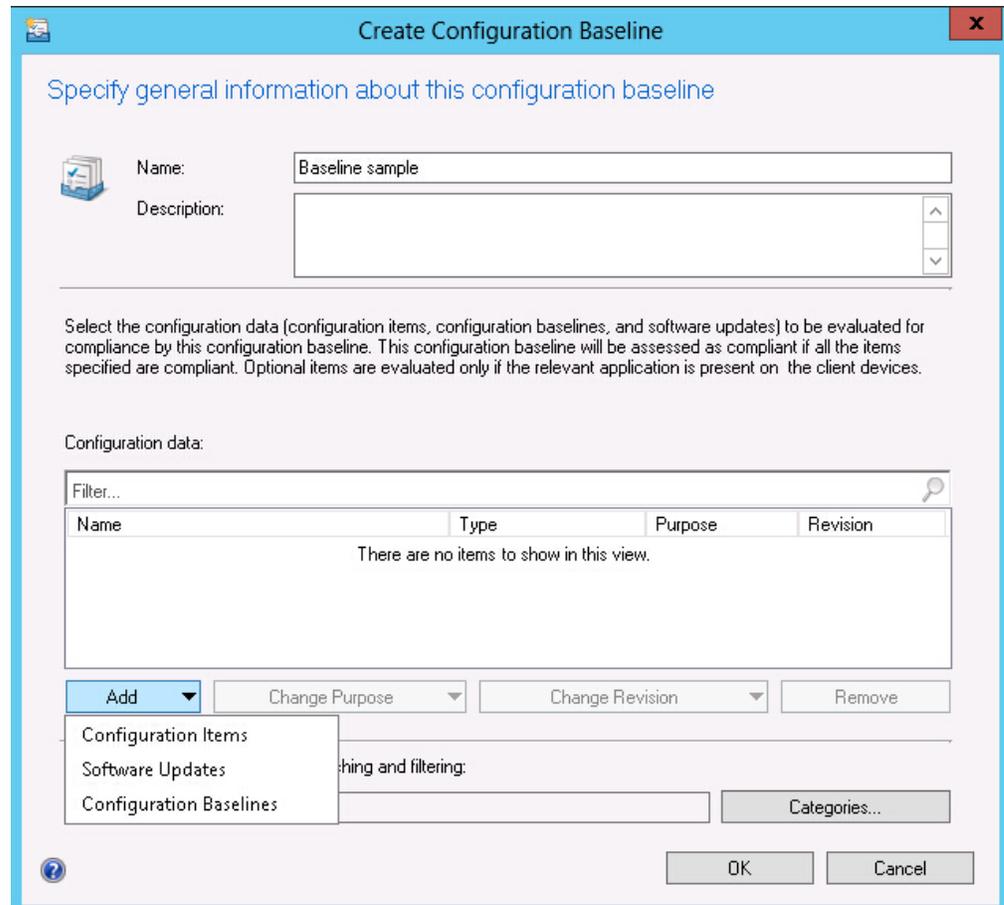


Figure 90. Add Configuration Items

4. Click the **Configuration Items** link to select the configuration items that you want to validate.

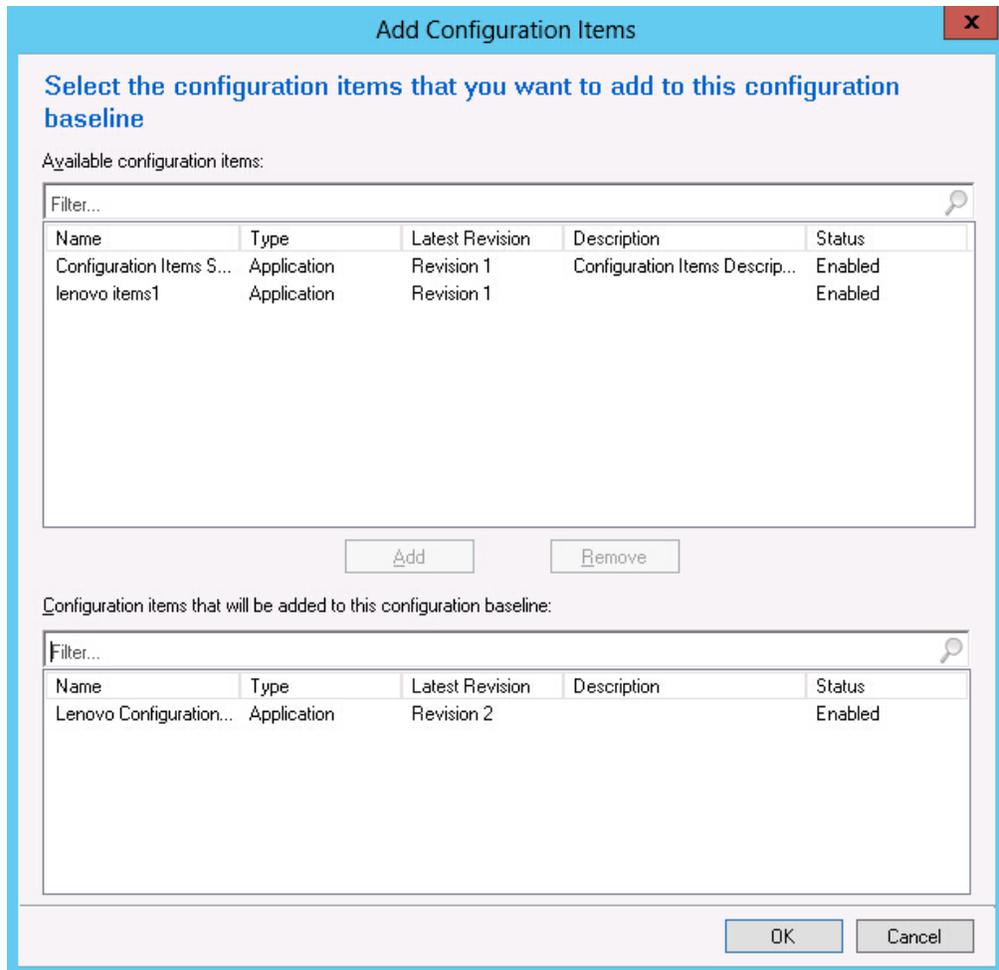


Figure 91. Configuration Items list

5. Click **OK** to exit the wizard.

Assigning a baseline to a collection

You can assign a baseline to a collection to check the settings of clients in that collection. The following procedure describes how to assign a baseline to a collection.

Procedure

1. In the Configuration Manager Console, right-click the new baseline and click **Deploy**.

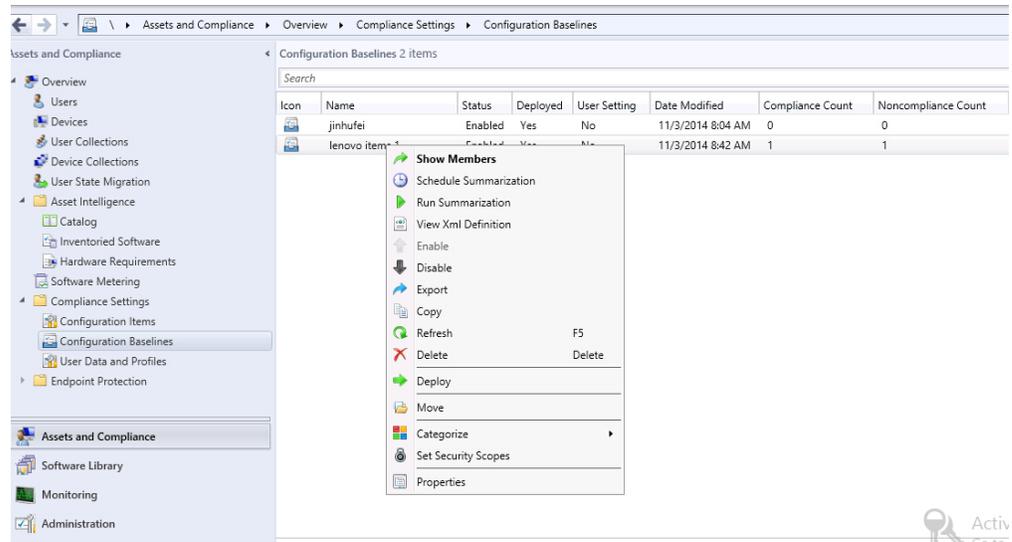


Figure 92. Deploy to a Collection function

The Deploy Configuration Baselines wizard opens.

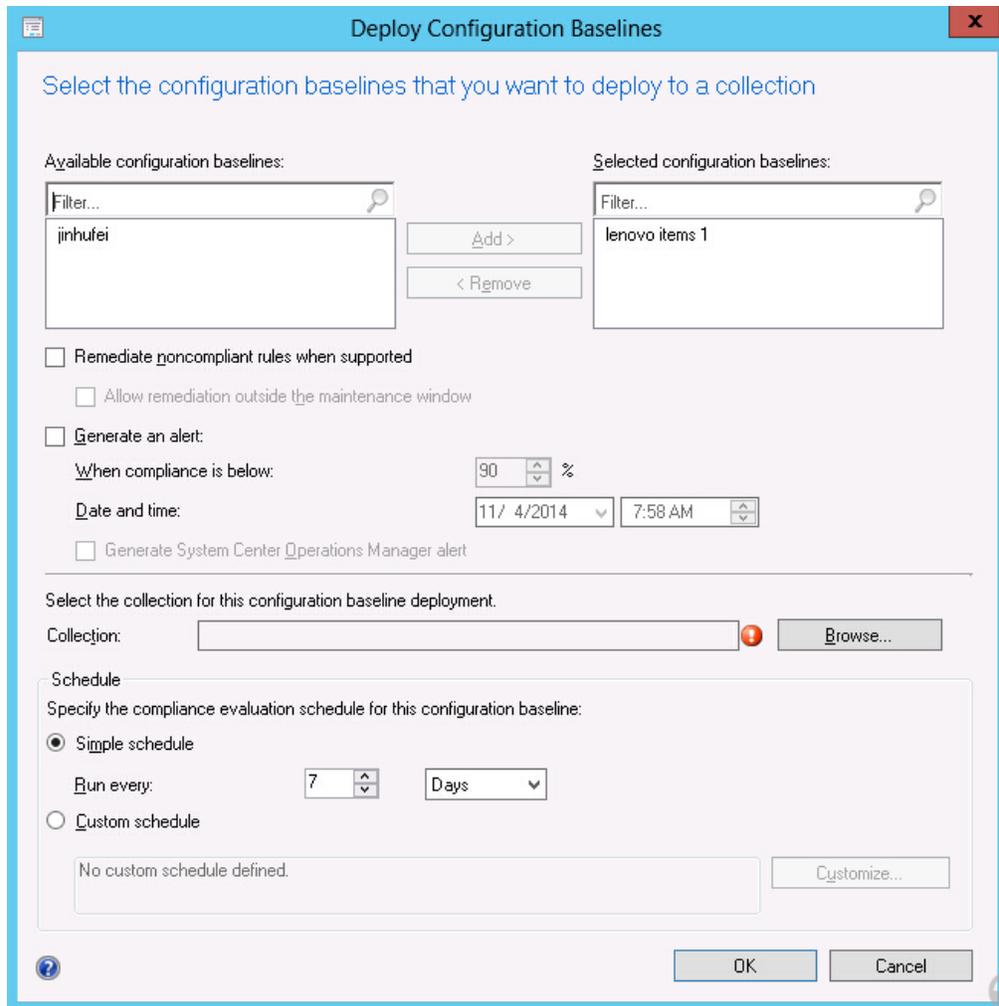


Figure 93. Assign Configuration Baseline function

Note: To remediate the noncompliant settings, click **Remediate noncompliant rules when supported**. When this option is selected, nothing happens if a setting is compliant. If a setting is non-compliant, System Center Configuration Manager attempts to change the non-compliant setting to the expected value. The remediation option might not always be successful.

2. In the Select the collection for this configuration baseline deployment section, click **Browse** and to select a target client collection.
3. Select a schedule for the baseline validation.
 - Simple schedule
 - Custom schedule
4. Click **OK**.

Evaluating a baseline on the endpoint

A baseline and its child configuration items are automatically evaluated (the settings for configuration items are checked) according to the schedule you created or selected. You can also advance a baseline evaluation as follows:

Procedure

1. To ensure that an endpoint can be found on the SCCM server and that the SCCM client agent is installed, select the applicable endpoint.
 - For a 32-bit endpoint, click **Control Panel > Configuration Manager**.
 - For a 64-bit endpoint, click **Control Panel > View 32-bit Control Panel Items > Configuration Manager**.

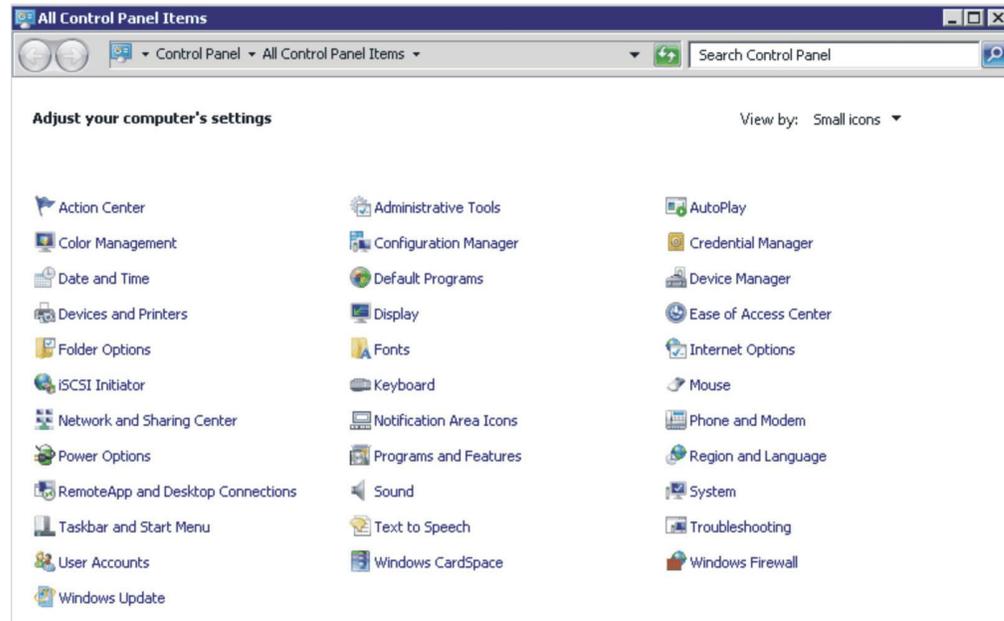


Figure 94. Configuration Manager in Control Panel folder

The Configuration Manager Properties window opens.

2. On the **Actions** tab, select **Machine Policy Retrieval & Evaluation Cycle**, and then click **Initiate Action**. A message is displayed notifying you that the action has been initiated.

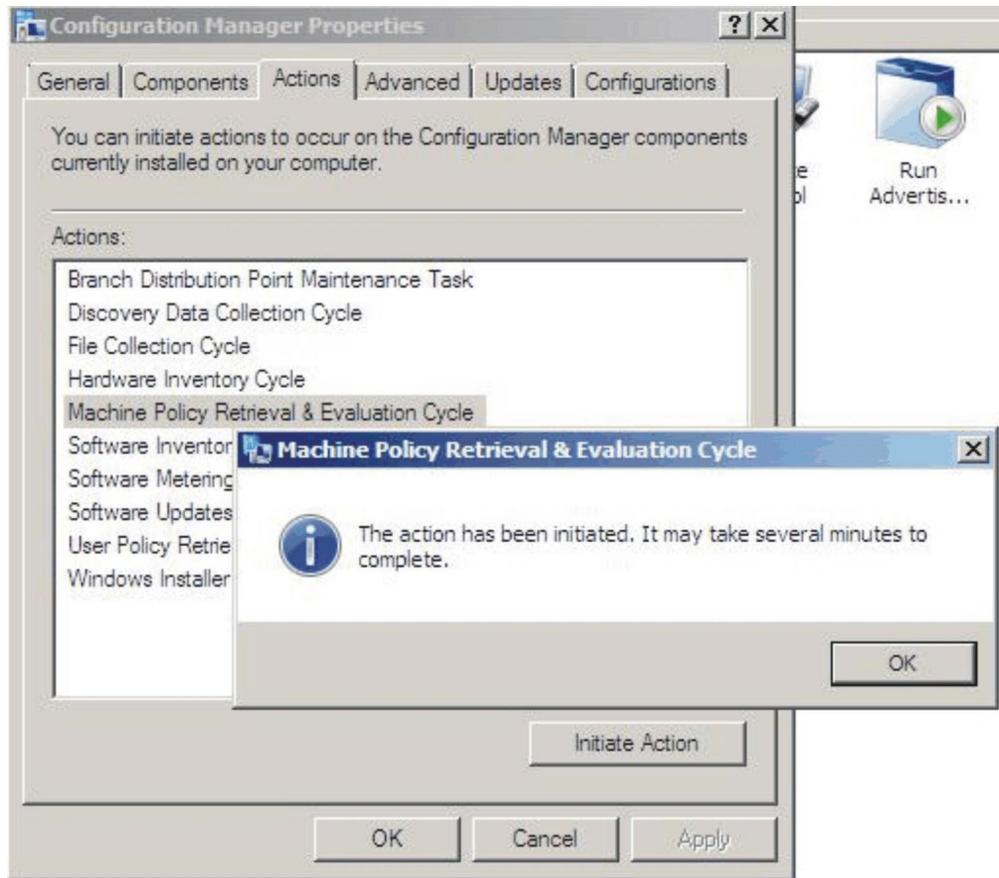


Figure 95. Action Initiated window

3. Click **OK**. After a few minutes, the baseline is displayed beneath the **Configurations** tab.
4. If the baseline is not displayed, click **Refresh**.

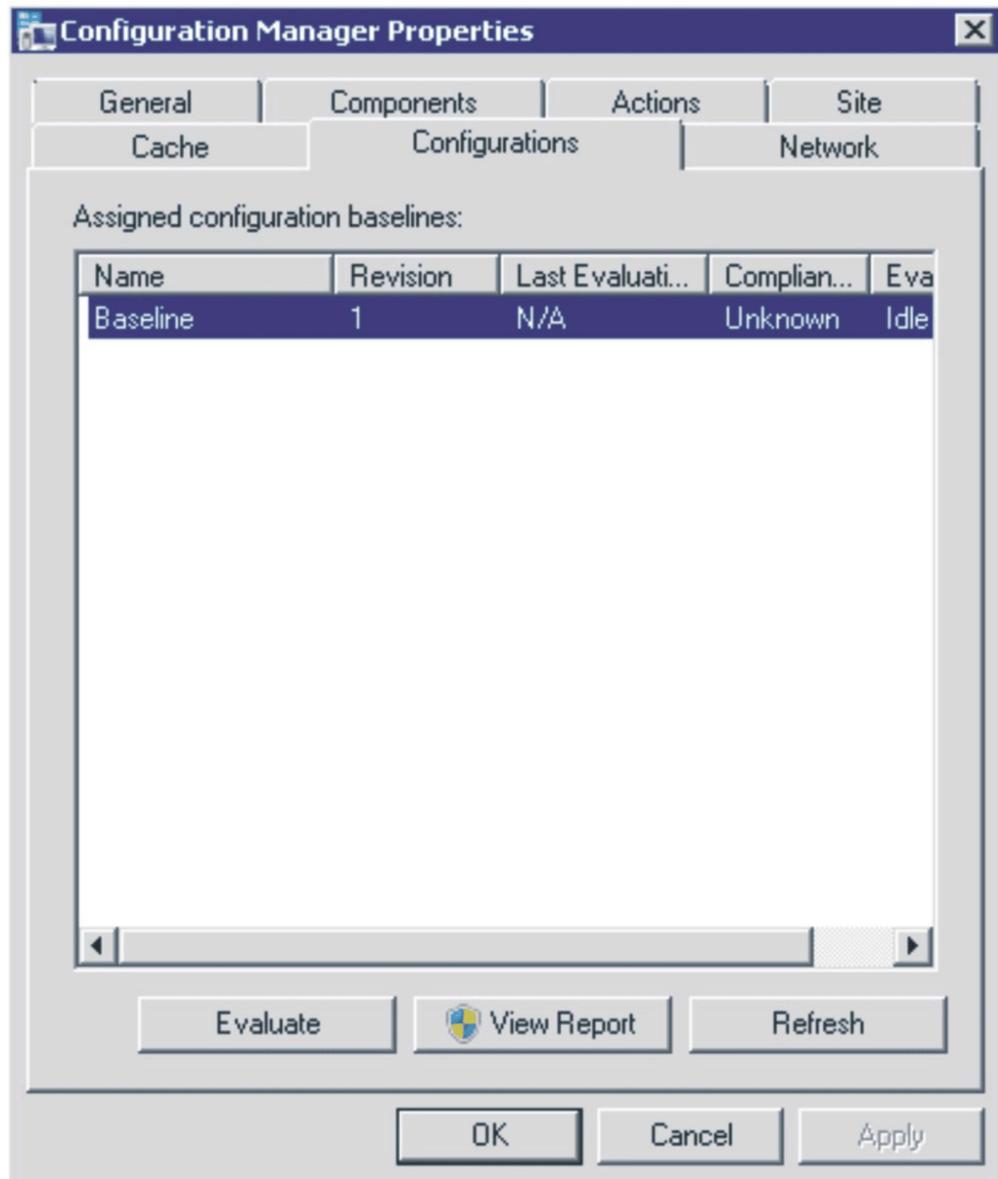


Figure 96. Configurations tab

5. Select the baseline, and click **Evaluate**. After a few minutes, the **View Report** button is available.

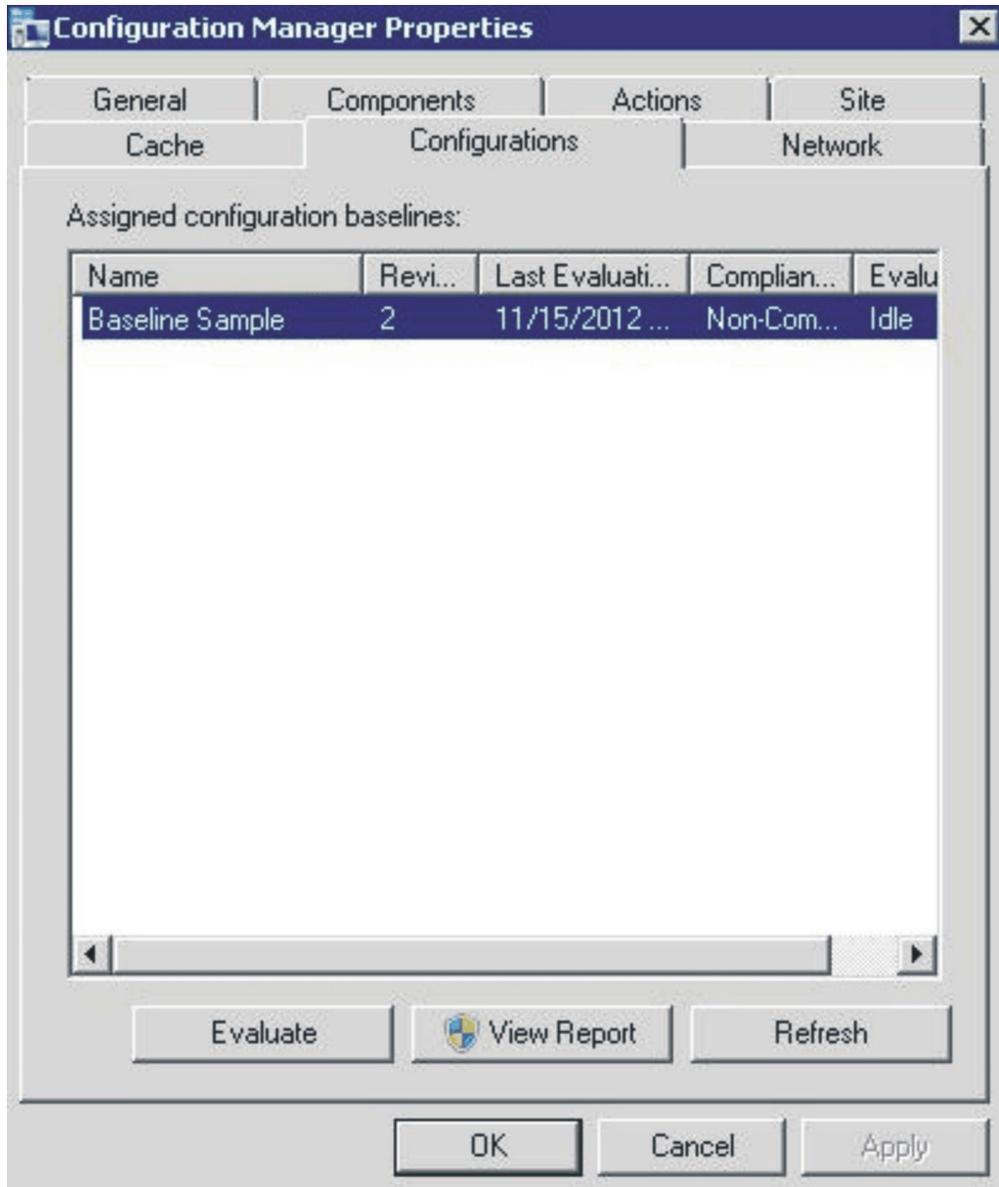


Figure 97. Configurations tab with View Report button available

6. Select the baseline and click **View Report** to review the report.

The Evaluation Report view

An evaluation report is generated for the baseline you select. However, there are some situations when the evaluated setting (script) does not return any value.

There are several reasons why this might occur:

- The endpoint does not have an Integrated Management Module (IMM).
- The endpoint has the IMM, but the evaluated setting cannot be found on the endpoint.
- The wrong user ID and password were used to connect to the IMM.
- The ASU.exe file version is not v3.60 or later.
- The evaluation timed out (5 minutes). System Center Configuration Manager(SCCM) sets the time limit.

Summary:

Name	Revision	Type	Baseline Policy	Compliance State	Non-Compliance Severity	Discovery Failures	Non-Compliant Rules	Remediated Rules	Conflicting Rules
Test	1	Baseline		Non-Compliant	Information	0	5	3	0
Test	1	Application Configuration	Required	Non-Compliant	Information	0	5	3	0

Figure 98. Summary of evaluated results

Note: If the evaluated setting does not return a value, the SCCM client agent deems the setting as non-compliant on the endpoint, and ranks its severity level as Information. The evaluation report does not specify the cause. To determine the cause, check the logs in the Windows Event Viewer for details. The following figure provides an example of the Windows Event Viewer logs.

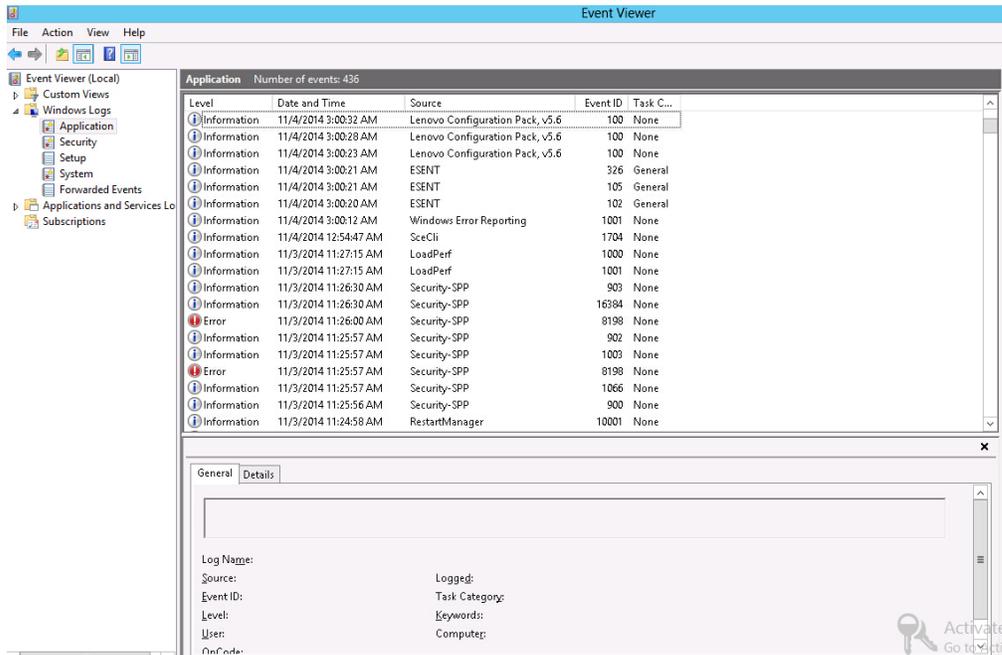


Figure 99. Windows Event Viewer logs

This figure provides a view of the DCM with remediated rules.

Remediated Rules:

Remediated Rule:

Rule Name	Rule Description	Setting Name	Setting Type	Setting Description	Instance Data			
					Expression	Instance Source	Previous Value	Remediated Value
rule	Description	IMM.AccountSecurity	Script	Configure the IMM Global Login Setting "Account security level." Select the authority level associated with this login id.	Equals High security settings	Property = Line[0]	Legacy security settings	High security settings

Remediated Rule:

Rule Name	Rule Description	Setting Name	Setting Type	Setting Description	Instance Data			
					Expression	Instance Source	Previous Value	Remediated Value
rule	Description	IMM.DefPasswordExp	Script	Configure the IMM Global Login Setting "Default Password Expired". To configure this setting, "Custom security settings" must be selected as the AccountSecurity level. Specify whether or not the default password is expired on the next login.	Equals Enabled	Property = Line[0]	Disabled	Enabled

Figure 100. Remediated Rules

Running Lenovo Configuration Capture

The Lenovo Configuration Capture function captures IMM, uEFI, and uEFI (Romley Platform) settings from an Lenovo server, and exports the captured settings into a configuration description .xml file.

About this task

To start Lenovo Configuration Capture, click the **Lenovo Configuration Capture** shortcut from the **Start** menu. Lenovo Configuration Capture can also be launched on computers that do not have Lenovo Configuration Pack installed by copying the ILenovo Configuration Pack .exe file onto those computers.

Note: You can launch Lenovo Configuration Pack .exe file without activating the License Entitlement.

Procedure

1. Launch the Lenovo Configuration Capture wizard. The Welcome page opens.

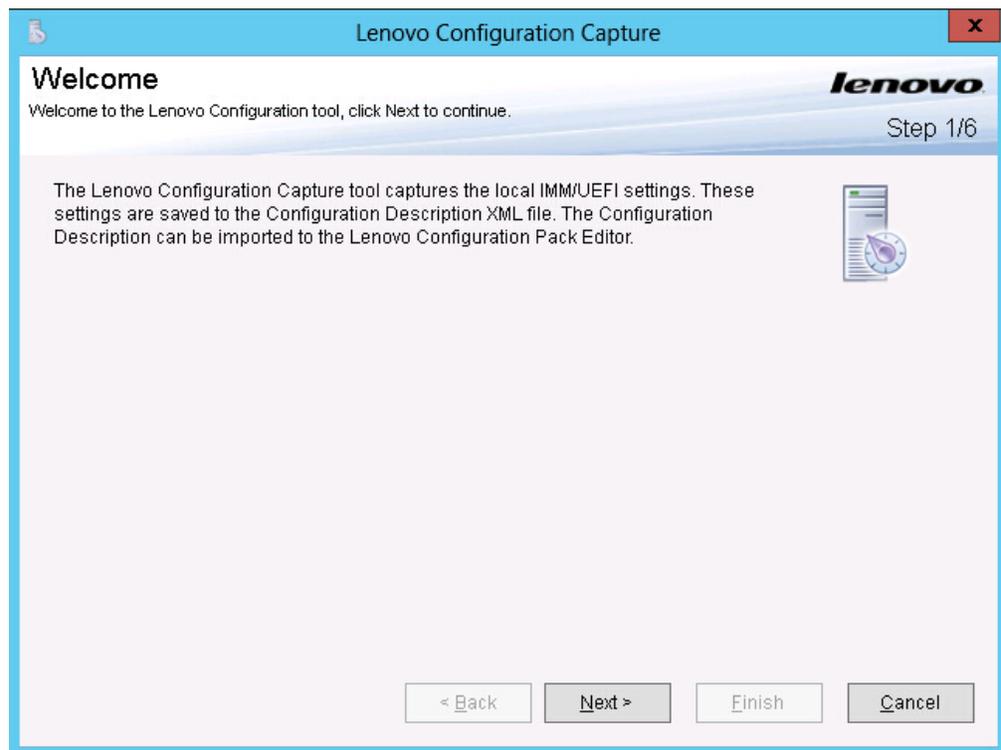


Figure 101. Welcome page

2. Select one of the following options for appointing the ASU tool.
 - Use the built-in ASU file
 - Please select an ASU (.exe) file and click **Browse** to make a file selection.

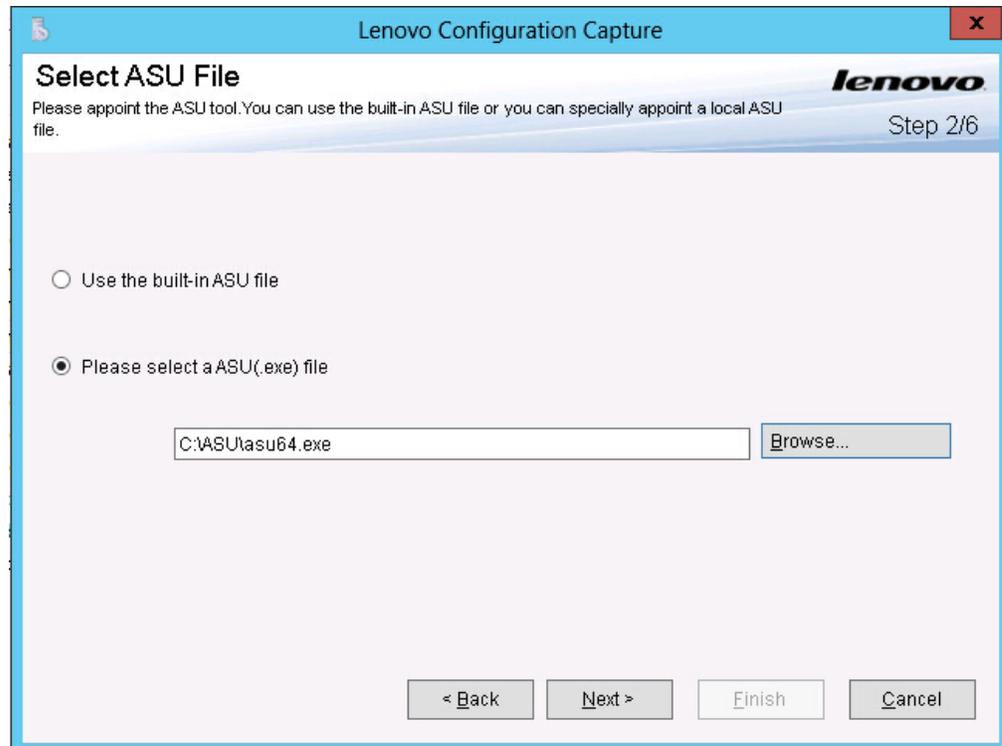


Figure 102. Selecting the ASU file

3. Click **Next** to display the General Information page. This page automatically collects information from the local computer.

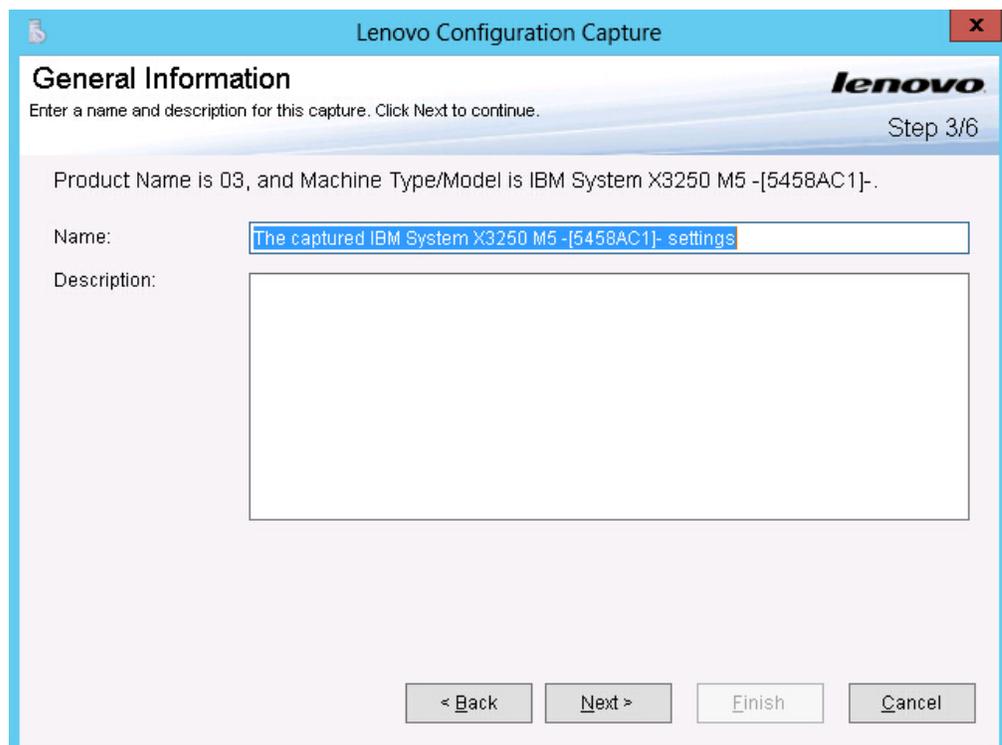


Figure 103. General Information page

4. Click **Next** on the General Information page. The Lenovo Configuration Capture wizard starts collecting the local computer's IMM/uEFI/uEFI (Romley Platform) settings.

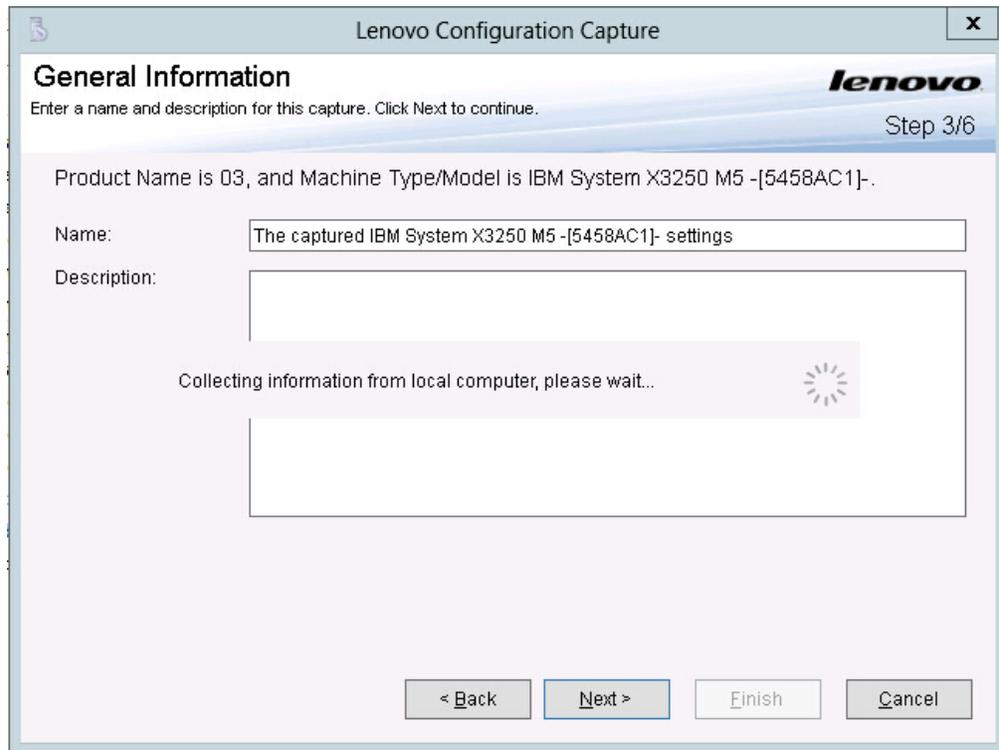


Figure 104. Collecting information

After a few minutes, the Lenovo Configuration Capture wizard finishes collecting the settings. The Select Settings page opens, which lists the captured settings.

5. Select the settings you want to export.

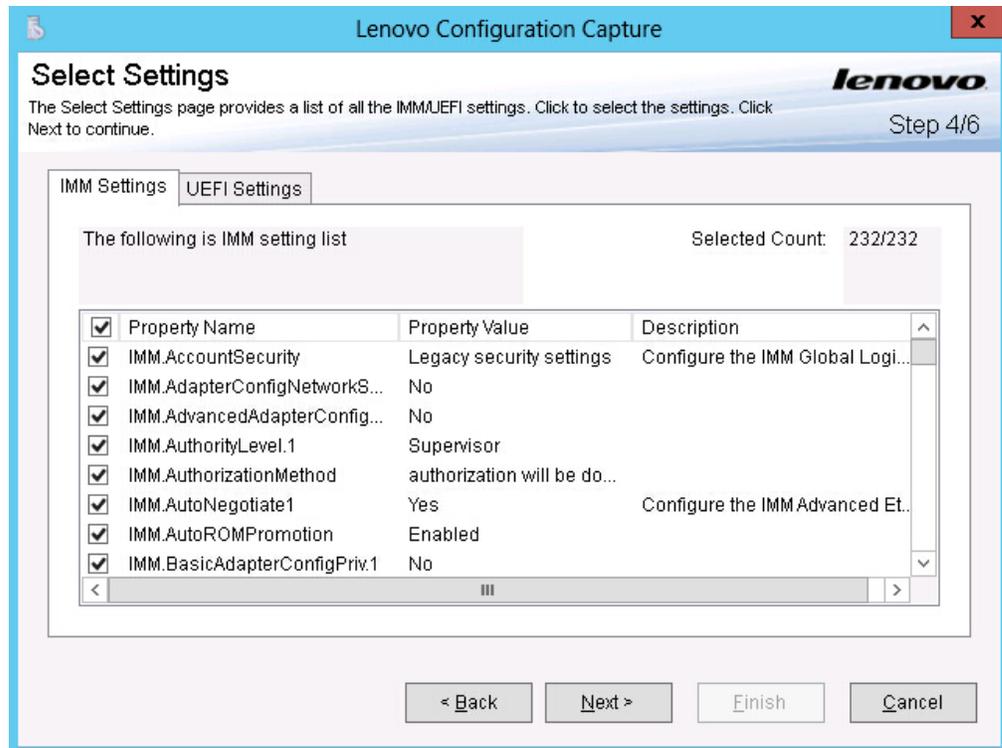


Figure 105. IMM settings

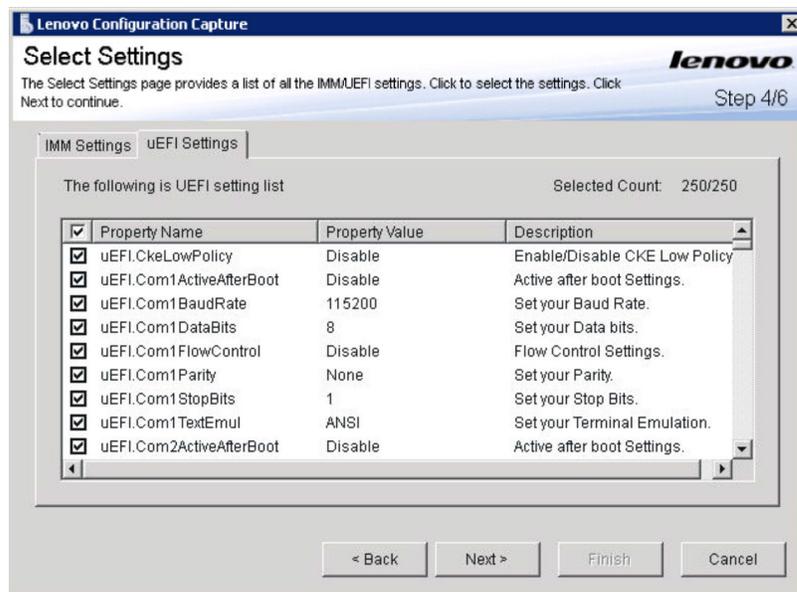


Figure 106. uEFI settings

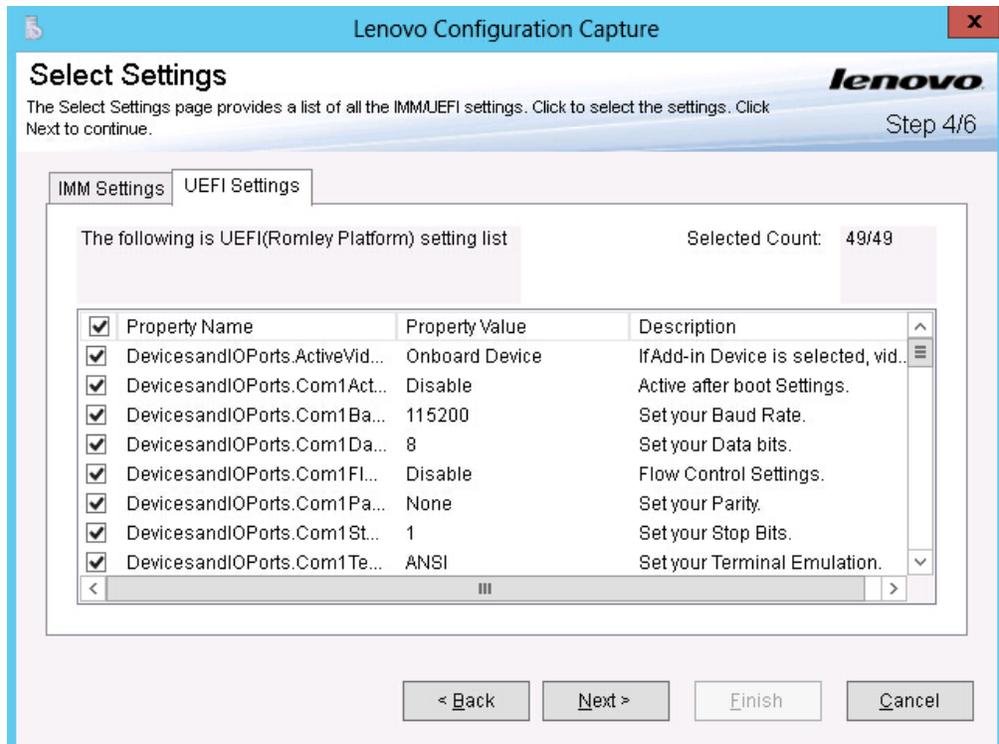


Figure 107. UEFI (Romley Platform) settings

Note: The capture can fail when the local computer does not have an IMM, a uEFI or a uEFI (Romley Platform) module, or if the IMM account information is incorrect. If the capture fails, click the **Information** link to view more information.

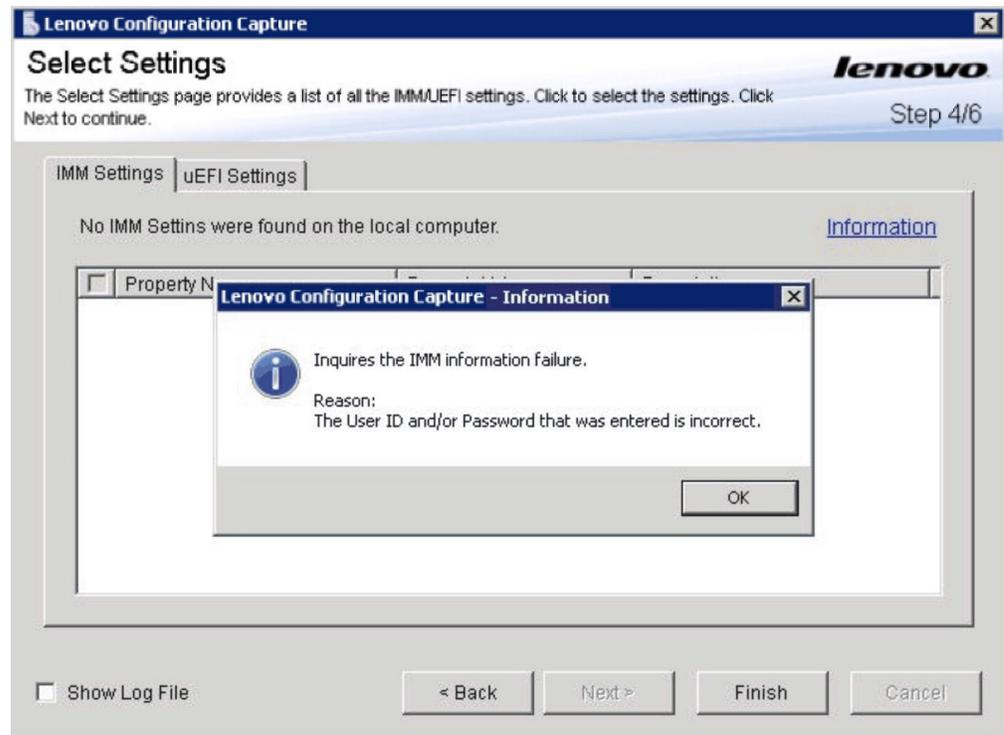


Figure 108. Incorrect IMM account is incorrect

6. Select the settings that you want from the Select Settings page and click **Next**. The Export page lists settings that you can export to a Configuration Description.xml file.

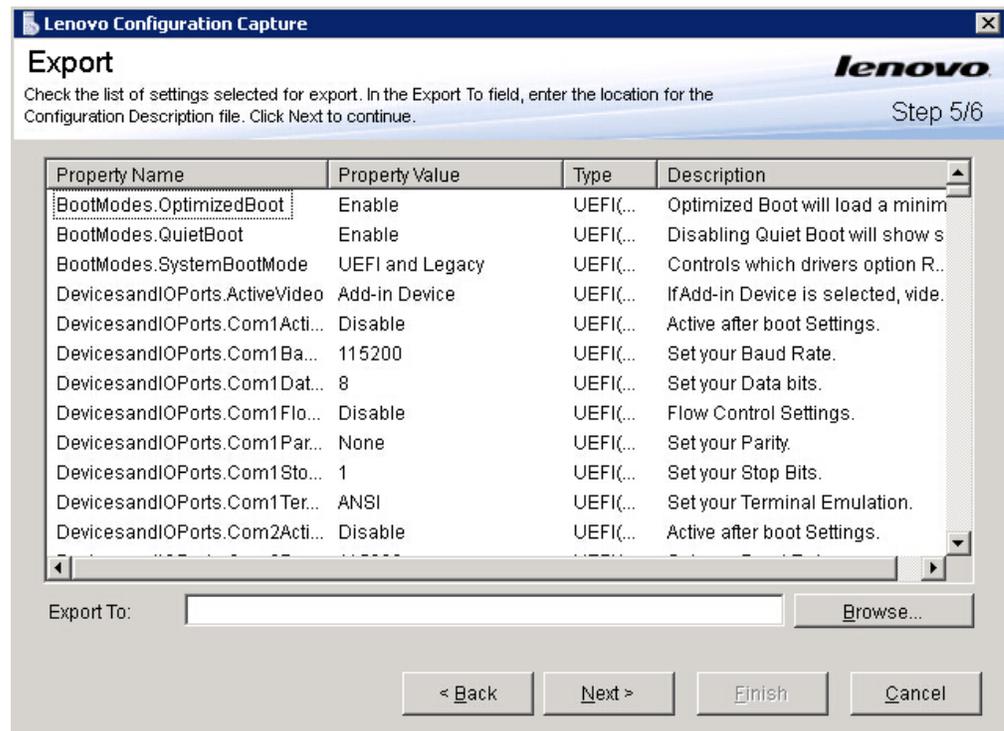


Figure 109. Export Page

7. Click **Next**. The **Export Successfully Completed** page opens.

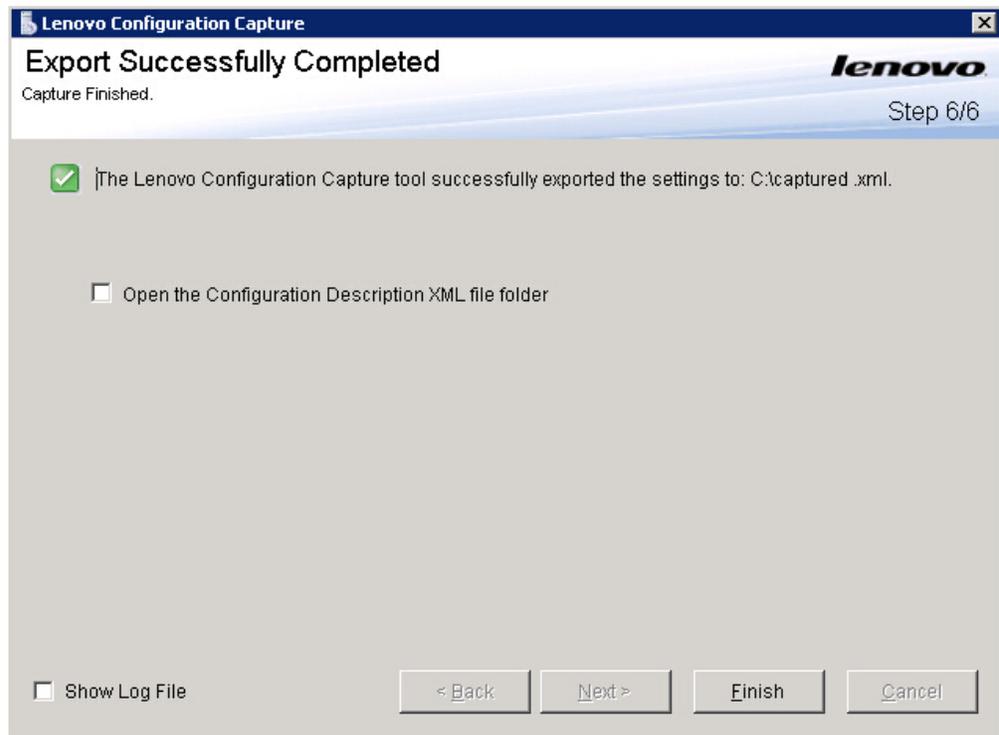


Figure 110. *Export Successfully Completed*

Note: You can export the captured configuration description file into any Lenovo Configuration Pack Editor to manage. For more information, see "Creating a configuration item" on page 24.

Chapter 4. Hardware and software support

The topics in this section describe the hardware and software that is supported by Lenovo Configuration Pack for Microsoft System Center Configuration Manager v6.0.

Supported Microsoft System Center products

Lenovo Configuration Pack for Microsoft System Center Configuration Manager v6.0 supports the following Microsoft System Center products:

- Microsoft System Center Configuration Manager 2012
- Microsoft System Center Configuration Manager 2012 R2
- Microsoft System Center Configuration Manager 2012 SP1
- Microsoft System Center Configuration Manager 2007 R2
- Microsoft System Center Configuration Manager 2007 SP2

Supported client systems

Lenovo Configuration Pack for Microsoft System Center Configuration Manager v6.0 supports the following client systems:

Table 2. Supported IBM systems

Product family name	Machine type
IBM BladeCenter HS22	7870, 1936, 7809, 1910
IBM BladeCenter HS22V	7871, 1949
IBM BladeCenter HS23	7875
IBM BladeCenter HS23E	8038, 8039
IBM Flex System x220 Compute Node	7906, 2585
IBM Flex System x222 Compute Node	7916
IBM Flex System x240 Compute Node	8737
IBM Flex System x280 X6 / x480 X6 / x880 X6 Compute Node	7903
IBM Flex System x440 Compute Node	7917
IBM NeXtScale nx360 M4	5455
IBM System x 3100 M4	2582
IBM System x 3100 M5	5457
IBM System x 3200 M2	4367, 4368
IBM System x 3200 M3	7327,7328
IBM System x 3250 M2	7657, 4190, 4191, 4190
IBM System x 3250 M3	4251, 4252, 4261
IBM System x 3250 M4	2583
IBM System x 3250 M5	5458
IBM System x 3300 M4	7382
IBM System x 3400 M2	7836, 7837

Table 2. Supported IBM systems (continued)

Product family name	Machine type
IBM System x 3400 M3	7378, 7379
IBM System x 3500 M2	7839
IBM System x 3500 M3	7380
IBM System x 3500 M4	7383
IBM System x 3530 M4	7160
IBM System x 3550 M2	7946, 4198
IBM System x 3550 M3	7944, 4254
IBM System x 3550 M4	7914
IBM System x 3620 M3	7376
IBM System x 3630 M3	7377
IBM System x 3630 M4	7158
IBM System x 3650 M2	7947, 4199
IBM System x 3650 M3	7945, 4255, 5454
IBM System x 3650 M4	5466, 7158, 7915
IBM System x 3650 M4 HD	5460
IBM System x 3750 M4	8722, 8733, 8752
IBM System x 3850 X6 / x3950 X6	3837
IBM System x iDataPlex dx360 M2 server	7321, 6380, 7323
IBM System x iDataPlex dx360 M2 server dx360 M3	6391

Table 3. Supported Lenovo systems

Product family name	Machine type
Lenovo System x3550 M5	5463
Lenovo Flex System x240 M5 Compute Node	2591, 9532
Lenovo Flex System x440 Compute Node	7167, 2590
Lenovo Flex System x280,x480,x880 X6 Compute Node	4258
Lenovo Flex System x240 Compute Node	7162, 2588
Lenovo NeXtScale nx360 M5	5465
Lenovo NeXtScale nx360 M5 DWC	5467, 5468, 5469
Lenovo System x3650 M5	5462

Supported operating systems for client machines

Lenovo Configuration Pack for Microsoft System Center Configuration Manager v6.0 supports the following operating systems:

- Windows Server 2003 SP2/R2
- Windows Server 2003 SP2/R2 x64
- Windows Server 2008 SP1/SP2
- Windows Server 2008 SP1/SP2 x64

- Windows Server 2008 SP1/R2
- Windows Server 2012 R2

Chapter 5. Troubleshooting

Use this section to troubleshoot and resolve problems with Lenovo Configuration Pack for Microsoft System Center Configuration Manager.

- If you experience any issues when using Lenovo Configuration Pack Editor, you can check the log file information in the `InstallationFolder\logs` folder. The logs folder is automatically deleted when the product is uninstalled.
- If you want to export the evaluation logs for Lenovo Configuration Pack on the endpoint, follow these steps:

1. After the evaluation, launch Event Viewer.
2. Expand **Windows Logs**.
3. Right-click **Application** node, and click **Save Events as**.

You can also use the following methods to check whether the property exists and the IMM account is correct:

- Get the specific IMM/uEFI property by typing the following command:

```
asu.exe show propertyname
```

For example, **asu.exe show IMM.HTTPPort**

- Get the specific IMM/uEFI property with the account by typing the following command:

```
asu.exe show propertyname --user UserID --password Password
```

For example, **asu.exe show IMM.HTTPPort --user admin --password esW2Ad**

- In the Evaluation Report View section, if the script cannot get the evaluated setting, it does not return a value, and the SCCM client agent deems the evaluated setting to be non-compliant. You can get the details about this evaluated setting from the application logs in Windows. The following terms are used in the application log:

[Not Found ASU]

The ASU.exe file was not found in the specified location.

[TargetOS]

The version of the current operating system: either 64-bit or 32-bit.

[Found ASU]

The location of the ASU.exe file.

[Property]

The name of the evaluated property.

[Set ACCOUNT]

Reflects whether users set the IMM account in Lenovo Configuration Pack Editor.

[TimeOut]

Indicates whether the evaluation has timed out.

[Return Code]

The return code for the ASU.exe file. If the evaluated setting can be found, the return code is 0. Otherwise, the return code is larger than 0. For more details about ASU return codes, refer to the following web page: [Advanced Settings Utility \(ASU\) for Lenovo x86 servers support portal](#).

[Error Output]

If the evaluated setting is not found, this code records the reason for the failure.

[Output]

If the evaluated setting is found, this code records the ASU.exe file search result.

- Lenovo Configuration Capture records a log file in the Lenovo_Support\DCM\logs folder of the system driver during the launching process. For example, if your system drive is C:, then the log file is recorded under the C:\Lenovo_Support\DCM\logs\ folder.
- Lenovo Configuration Capture can capture all IMM/IMM/uEFI/uEFI (Romley Platform) settings from the Lenovo server, but some captured settings may not be included in the common setting list of Lenovo Configuration Pack Editor. Lenovo Configuration Pack Editor cannot list the values of those settings after they are imported; the editor assumes the type for those settings is String type.

Lenovo Configuration Pack Editor - Setting Editor

Select the property that you wish to monitor for compliance. If the property list does not include the desired property, type it in the Property Name field.

Property Name: IMM.PowerRestorePolicy

Description: mode of operation if a power loss occurs. This setting can also be configured via BIOS F1 setup.
Restore: Restores system to the same state it was before power failed.

Comparator: Equals Value: Restore

Severity: Information

Remediate noncompliant IMM/UEFI setting values on client automatically. The remediation action may be failed if the target setting is readonly.

Expected Value: Restore

i When the property "IMM.PowerRestorePolicy" "Equals" "Restore", the property is compliant on the endpoint. Otherwise, the property is non-compliant and returns a severity of "Information".

OK Cancel Apply

Figure 111. Lenovo Configuration Pack Editor - Setting Editor page

In Figure 111, the **IMM.DuplexAutoDisable** property is not in the common setting list of Lenovo Configuration Pack Editor, and the **Description** and **Expected Value** fields are empty. Lenovo Configuration Pack Editor assumes that the type for the **IMM.DuplexAutoDisable** property is String. For details about the different types, see Table 1 on page 15.

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