

# Achieving Software License Compliance with EPM Solutions

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Description	As a continuation of the standard demonstration and POC guidance provided in the prerequisite collateral, this Hands On Lab will cover the demonstration of various customer use cases for Asset Management Suite with a focus on Software License Management, Compliance and administrative functions and how they solve real world challenges.
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At the end of this lab, you should be able to	<ul style="list-style-type: none"><li>▪ Demonstrate application metering policies and understand the various levels of tracking and control .</li><li>▪ Confidently demonstrate or provide proof of concept services using software license compliance methodologies.</li><li>▪ Demonstrate custom procedures like managing software product editions</li><li>▪ Understand the Software Asset Management reports available</li></ul>
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Notes	<ul style="list-style-type: none"><li>▪ A brief presentation will introduce this lab session and discuss key concepts.</li><li>▪ Feel free to follow the lab using the instructions on the following pages. You can optionally perform this lab at your own pace.</li><li>▪ Be sure to ask your instructor any questions you may have.</li><li>▪ Thank you for coming to our lab session.</li></ul>
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# Software License Management

The Symantec Management Console contains several portals that serve as landing pages or dashboards. When on the Software License Portal, AMS can track all the software licenses. Conceptually, license compliance is a straightforward, simple concept, it serves the following functions:

- Report on installed licenses
- Keep track of what is purchased vs. what is installed.
- Never install more than you buy.
- Never buy more than you need.

License compliance is a challenging endeavor, as there is no standard, industry-wide method for vendors to denote the presence of an application. Software procurement is often de-centralized, making it difficult to know exactly what is purchased.

In this lab we will present the Symantec Asset Management solution's approach to software license compliance. Upon completion of this lab you will understand how to create a license compliance calculation for a particular software title.

## ***Basic Terms***

- **Software Catalog:** The Software Catalog is a centralized model of the software that is known in your organization, regardless of where the software is installed. The Software Catalog does not contain any software. Instead, it contains the data that describes the software. If a package is associated with the software, the Software Catalog also points to the source of the package file.
  - Example: The software catalog will hold information about installed software as well as yet-to-be-deployed applications/releases/patches.
- **Software Library:** The Software Library is the physical directory location of the package files that are associated with the software in the Software Catalog. Because the Software Library is a repository of the definitive, authorized versions of the packages, you should restrict access to the library to maintain its integrity.
  - Example: the MSI file for the installation of OpenProject would reside in the software library, and perhaps be used by Symantec Software Distribution to install the application on client computers.
- **Software Resource:** A software resource is the meta data that describes a specific instance of a software product. A software resource provides a common way to describe the software so that all software-related actions can identify it accurately.
  - Example: The data of all files installed when OpenProject is installed (dll's, exe's, etc.) represents a software resource.
- **Software Product:** A grouping of one or more software resources. Use of the software product is optional in the Symantec Management Platform, but required for software license compliance.
  - Example: For example, you create a software product named Norton Internet Security 2008. Then you assign that product to separate software resources for

Norton Internet Security 2008 - English, Norton Internet Security 2008 - English SP1, Norton Internet Security 2008 -French, and so on.

- **Software Purchase:** The record of the rights purchased for a particular software title. Purchases may reflect procurement events or organizational events.
  - Example: PO 12345 for 10 copies of Microsoft Visio, “purchase” of 500 copies of Microsoft Visio due to acquisition of company ABC, “purchase” of -500 copies of Microsoft Visio to reflect divestiture
- **Software License:** A contract type within Symantec Asset Management used to relate software purchases to a software product.
- **Master License Agreement:** A parent-child relationship among software licenses. This agreement typically coincides with an actual agreement your company has.
  - Example: A Master License Agreement “Microsoft Win32 Applications” could have child software licenses “Microsoft Office”, “Microsoft Visio”, “Microsoft Visual Basic”, etc.
- **Virtual License Agreement:** A parent-child relationship among software licenses, not typically corresponding to an actual contractual agreement.
  - Example: My role is to manage AutoCAD and Great Plains within my company. “My Special Virtual Agreement” is a parent license with child software license for AutoCAD and Great Plains.

## Lab Exercise 1: Application Metering and Control

This section will demonstrate the monitoring of software utilization across the enterprise and the methods used to restrict what and by whom particular software can be run on a computer as a means of avoiding risks. Inventory Solution provides the methods that allow you to perform the following tasks on your managed computers:

- **Track usage of the managed software at the software product**, component, and version level by enabling the software-based usage tracking option. This task is the primary method to use for the majority of software products.
- **Meter the use and control the availability of applications** by running predefined or custom application metering policies. The best practice is to use this task only if you need to meter start, stop, and denial events for applications at the file level.
- **Deny multiple applications from running** by configuring the predefined Blacklisted Applications policy or running custom application metering policies. To track usage of managed software products, meter, and deny applications, you must have the Symantec Management Agent, Inventory Plug-in, and Application Metering Plug-in installed on target computers.

### *Application metering plug-in Configuration*

To install a plug-in, you configure the policy that installs the plug-in on target computers. You select the group of computers on which the policy runs and when it runs. If you choose a group that contains a computer that already has the plug-in installed, the task is ignored on that computer. When the policy is enabled, any new computer that is a member of the target group automatically has the plug-in installed on it.

By default, no plug-in installation policies are enabled. If you install Inventory Solution for the first time, you must manually enable the policies to install the Inventory and Application Metering Plug-ins. Before performing this task, you must install the Symantec Management Agent on target computers.

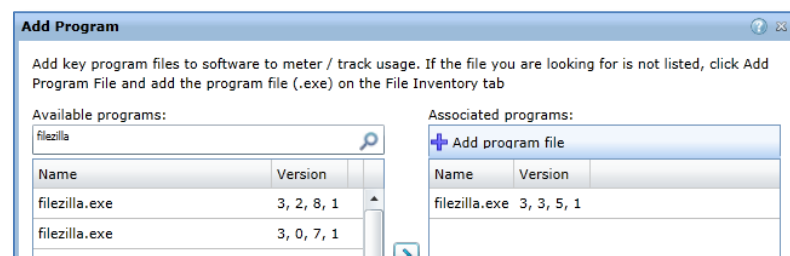
## ***Application Metering Policy Methods***

### **Method 1: Within the Software Product**

1. Make sure the DC, SMP, Win7 and SD7 Virtual Machines are powered on.
2. Switch to the **SMP** virtual machine.
3. Launch the **Symantec Management Console** by double-clicking the **Symantec Management Console** shortcut located on the desktop. The Symantec Management Console loads.
4. Maximize the **Symantec Management Console** so that it fills the screen.
5. Click **Manage | Software** from the main console menu. The Software Management interface appears.
6. Expand and select Deliverable Software > **Software Products** from the left pane.
7. The **FileZilla Client 3.3.5.1** managed product is displayed in the middle pane.
8. Double Click the **FileZilla Client 3.3.5.1** Software Product. The product details are displayed.
9. Select the “**Meter / track usage**” tab.

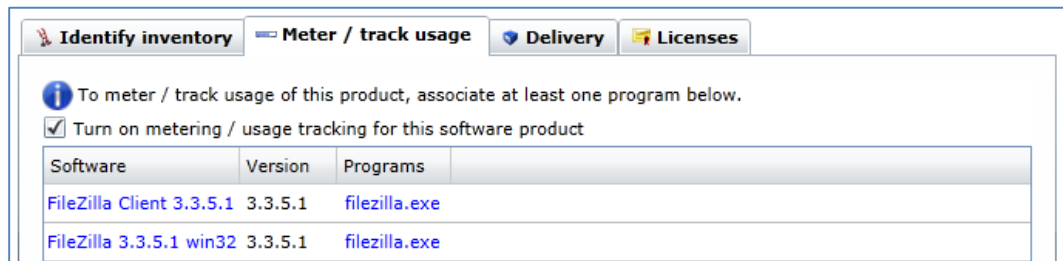
**Note:** Notice that one executable has been dynamically assigned to the Software Product and another has not. In the real-world, this field could be left blank, and once a full inventory had been run on a system with the software installed (and the NS.Nightly task had been executed) the executable would dynamically be added. For the sake of demonstration, we will manually make the executable associations.

10. Select the **FileZilla 3.3.5.1 win32** entry in the list of software and click the **Add Program** link next to it. The Add Program interface displays.
11. Notice how there are no software items in the listing. This is because the software inventory policy has not run on the Win7 VM and it has not returned the information on FileZilla 3.3.5.1 Win32.
12. Type **FileZilla** in the **Available Programs** field and check the **Show All Program Files** box.
13. You will notice that a few **FileZilla** entries appear.
14. Select the **FileZilla.exe version 3,3,5,1** entry and press the right arrow to insert it in the associated programs list.



**Note:** The files listed have been gathered from a cached .msi through the inventory process. If a cached .msi file is not available, you can mark the “Show all program files” checkbox, to display all files detected using the inventory process.

15. Click **OK**. The Add Program interface is closed.
16. Verify that the selected executable is listed for both FileZilla entries.
17. Check the **Turn on metering** checkbox. The associated file(s) will be monitored to determine application usage.



18. Notice the field at the bottom of the tab which indicates in which time frame a product must be used in order to be determined as used. The default time period is 90 days.

### Creating a Software License and Purchase from within the Software Product

1. Select the **Licenses** tab.

Notice that there is a check box for **Licensable Product**. If the software application falls under a site type license or if there is no license required, then unchecking that box will not show the product as out of compliance.

2. Mark the **Licensable Product** check box.
3. Press the **Add License Purchase** button.
4. Under the **Software License** section change the Name to **LAB FileZilla Client 3.3.5.1 License**.
5. Select **Per Installed computer**.
6. Enter **1500** in the **Maintenance Renewal Cost** field.
7. Enter **150** in the **Support Renewal Cost** field.

**NOTE:** This is the Software License Object. In Symantec Asset management Solution, the License Type and costs of the software purchases are dictated by a license object. If multiple licenses on a single product are created, the costs are summed.

8. Change the software purchase name to **LAB FileZilla Client 3.3.5.1 Purchase**.
9. Change the **Date** to **September 30, 2014**.
10. Enter **10** in **Quantity**.
11. Enter **50** in **Total Cost**.

12. Change the **Accounting Code** to **Purchase Cost** in the drop down list.

**Add License Purchase**

**Software license**

Name: LAB FileZilla Client 3.3.5.1 License

Type: ☒ Per installed computer ☐ Per concurrent use

Comments:

Maintenance renewal cost: 1500

Support renewal cost: 150

**Software purchase**

Name: LAB FileZilla Client 3.3.5.1 Purchase

Description:

Date: 9/30/2014

Quantity: 10

Total cost: 50

Accounting code: Purchase Cost

Add Cancel

13. Press **Add**

14. Click **OK**. The Software Product interface is closed.

**NOTE:** This is the Purchase Object. In Symantec Asset Management Solution, the quantity of software purchases are dictated by a purchase object. If multiple purchases on a single product are created, the quantity is summed.

After you save a software product with its associated software purchase and software license information, the ability to view and edit the full records of software license and software purchase within the Asset Management Suite pages become available.

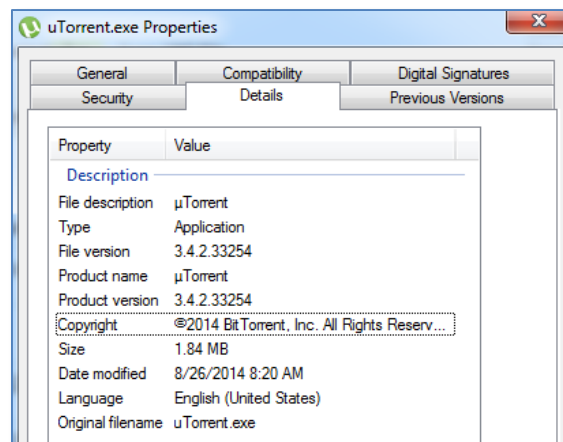
## Method 2: Creating an Application Metering Policy

Inventory Solution lets you deny one or more applications from running by configuring the predefined **Blacklisted Applications** policy or creating custom **Application Metering Policies**. When you configure an application metering policy, you define the applications you want to deny by creating new or editing the existing application definitions.

When you configure an application metering policy, you define the applications you want to meter by creating application definitions. You specify a list of application definitions for every application metering policy. When you define application definitions, you specify a set of definition details about the application. For each metering policy, you can have one or more applications defined.

In our Lab scenario, we would like to prevent the execution of P2P File sharing software in our environment and be able to specifically deny the uTorrent application from running, record the denial events and bring up a warning to the user. Utorrent has been previously installed on the Win7 Virtual Machine.

1. Switch to the **SMP** virtual machine
2. The following picture shows the file details that can be obtained by right clicking on the utorrent.exe file and choosing Properties. Notice that we can find product name, version and many other attributes that would allow us to pinpoint the specific software release.



By knowing the file details, we can plan our metering policy to meter this application and ensure that monitoring or denial policies on the software are retained.

3. Launch the Symantec Management Console by double-clicking the “Symantec Management Console” shortcut located on the desktop. The Symantec Management Console loads.
4. Maximize the **Symantec Management Console** so that it fills the screen.
5. Click **Manage | Policies** in the main console menu. The Policy Management interface appears.
6. Browse to the **Software > Application Metering > Samples** folder
7. Right Click on the **Samples** folder and choose **New > Application metering policy**
8. At the top of the right pane, change the policy Name, “**New Application metering policy**” to “**uTorrent metering policy**”
9. On the policy page, on the **Software** tab, click the **Add** drop-down list.



10. Click **Rule**, the **Add Application Rule** dialog box opens.

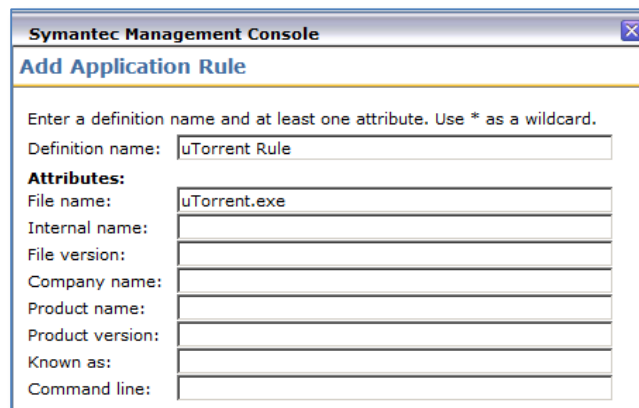
**Note:** The “Add > Rule” Option provides a “Rule tab” so you can manually create your own application definitions. The application definition detail fields are case-sensitive. This method is useful for defining the software applications that are not already installed on computers on your network. For example, you can deny applications such as games or P2P file-sharing programs before they are ever used.

Note: The “Add > Software” method is useful to quickly include a known software application without manually configuring application definition details. However, the known application definition details may be too specific. For example, it is important to note that application definitions may be version-specific, especially those using known software application details. If you use a known application from the Software drop-down menu, you may want to edit application definition details to meet your needs.

In this case, the “Add > Software” method would not work to populate the details from inventory because uTorrent is installed to a hidden location in the user’s profile.

11. Enter **uTorrent Rule** in the **Definition Name** field.

12. Enter **uTorrent.exe** in the **File Name** field.



Symantec Management Console

**Add Application Rule**

Enter a definition name and at least one attribute. Use \* as a wildcard.

Definition name:

**Attributes:**

File name:

Internal name:

File version:

Company name:

Product name:

Product version:

Known as:

Command line:

Notice that there are other file attributes we can include on this page. In our case, we only want to target any executable file named “uTorrent.exe”.

If you wanted to meter a specific version of “utorrent.exe” you would fill in more fields to pinpoint the exact match.

13. Click **OK**.

14. Select the **Options Tab**.

15. Notice the options available to you. This setting provides the policy with the ability to apply combinations of the following:

- Allow the uTorrent to run
- Deny uTorrent from running
- Deny uTorrent from running during a specified time
- Record uTorrent usage events

When the Record usage events option is enabled, and a user of a managed computer starts or stops a metered application, an event is generated. When a user tries to use an application whose metering policy denies its use, a denial event is generated. Every start event has a stop event or becomes a denial event. After the events are sent to the CMDB, you can generate reports to view this data

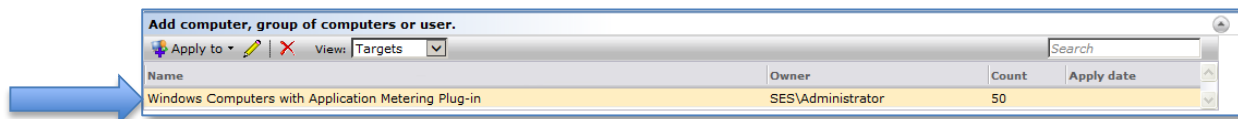
In our case we would like to deny the application from running, record the denial events and bring up a warning to the user.

16. Configure the options as follows:

- a. Select **Deny from running**.
- b. Select **Record Usage Events , Deny , Daily**.
- c. Mark **Inform User**.

17. Scroll to the top of the policy, and click the **Off** button, and select **On** from the resulting menu.

18. Under the **Add Computer, group of computers or user** section, select the **Windows Computers with Application Metering Plug-in** item.



19. Press the **Pencil (Edit)** icon.

20. Press the **Update Results** button to refresh the list.

21. Press **Cancel**.

22. Click **Save Changes** on the policy page.

You have now created an Application Metering Policy that will record the application execution and denial events, not allow it to run, and will display a message to the user warning them of its use.

**23. Switch to the Win7 Virtual Machine.**

24. Double-click on the uTorrent application Icon on the desktop.

25. Once it is opened, close the application using the menu option **File > Exit** as it may still be active in the tray.

26. Open the **Symantec Management Agent** on the task bar by double-clicking it.

27. Press the **Update Configuration** button at the top of the window.

28. Press the **Basic Inventory** button.

29. Close the **Symantec Management Agent** windows

30. Run **uTorrent** by clicking the icon on the desktop

31. Notice the behavior. You should be denied from running the application

## Lab Exercise 2: Software License Compliance Methodology

In this exercise the Administrator has been instructed to account for all Microsoft SQL Server 2008 installations and compare them with the purchased quantities to produce a compliance report for the accounting department.

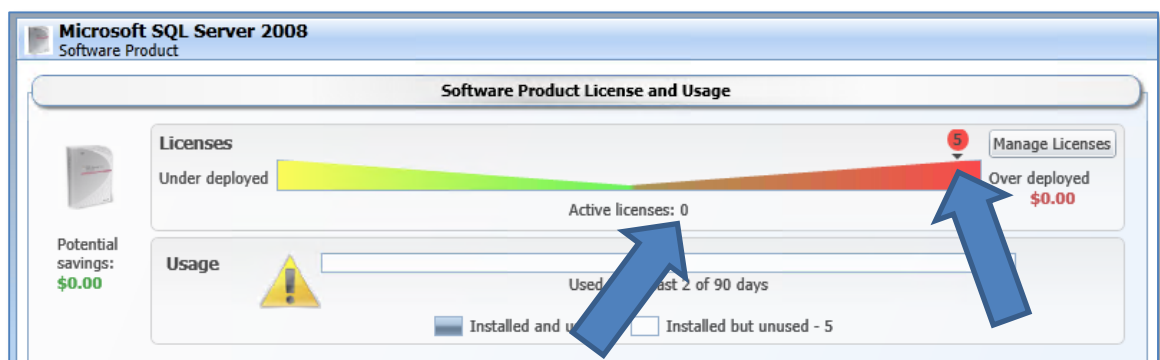
In order for software license compliance data to be calculated, there are 3 items that need to be associated with each other:

- Software Product
- Software License
- Software Purchase

The Administrator notices that there is a Software Product created for Microsoft SQL Server 2008 and it shows the installed endpoints, but there are no associated Software Licenses or Purchases.

### Review the Software Product

1. Open the Console and navigate to **Manage | Software**. The Software Items appear on the Left and the details appear on the right.
2. In the left pane, expand and select **Favorites > Installed Products**.
3. In the middle pane, locate and select **Microsoft SQL Server 2008**. The details for this software appear on the right
4. Notice that the graph shows that **Microsoft SQL Server 2008** is over deployed by 5 licenses and Active licenses is 0.



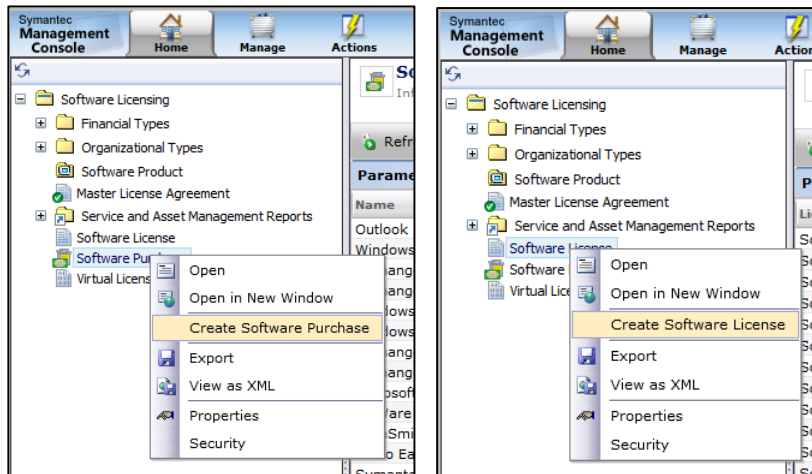
5. Also Notice that there are 5 installations of Microsoft SQL Server 2008 clearly indicated below the graph in the **Computers with Software installed** section.
6. This quick review of the details shows that the Microsoft SQL Server 2008 product does not have any licenses or purchases associated with it, and they need to be created before a complete compliance calculation can be performed.

## Create a Software Purchase and License

There are two ways to create a license and purchase for a Software product; through the Software License Portal and within the Software Product. They are utilized in different ways:

- If you simply need to create them and have basic information available, use the options within the Software Product
- If you have detailed information about them, use the Software Licensing Portal and create them

The Software Licensing Portal is accessed through Home | Service & Asset Management | Software Licensing.



To create the **Software Purchase**, you would simply right click on Software Purchase and select Create Software License

To create the **Software License**, you would simply right click on Software License and select Create Software License

In this exercise, the Administrator has some basic information available to create the Purchase and License quickly within the Software Product itself.

1. Double-click on the **Microsoft SQL Server 2008** software product in the middle pane. The Software Product window appears.
2. Select the **Licenses** tab.
3. Make sure the **Licensable Product** check box is marked.
4. Press the **Add License Purchase** button. The Add License Purchase window appears
5. Notice that there is a Software License and Software Purchase section. Also notice that it automatically enters names for them.
6. Modify the following fields under **Software License**:
  - a. Name: **LAB Microsoft SQL Server 2008 License**
  - b. Comments: **This is a SQL 2008 License**
  - c. Type: **Per Installed Computer**
  - d. Maintenance Renewal Cost: **10000**
  - e. Support Renewal Cost: **2000**
7. Modify the following fields under **Software Purchase**:
  - a. Name: **LAB Microsoft SQL Server 2008 Purchase**

- b. Description: **This is a SQL 2008 Purchase**
- c. Date: **Enter Today's Date**
- d. Quantity: **10**
- e. Total Cost: **50000**
- f. Accounting Code: **Purchase Cost**

**Add License Purchase**

**Software license**

Name: LAB Microsoft SQL Server 2008 License

Type: ☒ Per installed computer ☐ Per concurrent use

Comments: This is a SQL 2008 License

Maintenance renewal cost: 10000

Support renewal cost: 2000

**Software purchase**

Name: LAB Microsoft SQL Server 2008 Purchase

Description: This is a SQL 2008 Purchase

Date: 9/7/2014

Quantity: 10

Total cost: 50000

Accounting code: Purchase Cost

Add Cancel

8. Press the **Add** button.
9. Your **Licenses** tab should now contain the following information:

Identify inventory Meter / track usage Delivery **Licenses**

☒ Licensable product

Enter the license purchases for this software.

+ Add license purchase

License

Purchase	Date	Cost	Licenses
LAB Microsoft SQL Server 2008 Purchase	2/12/2015	50000	10

1 software license purchases

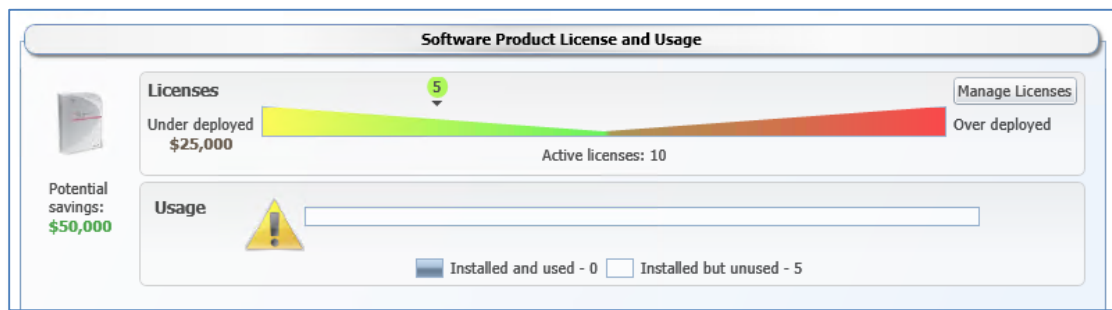
Total cost of active licenses: 50000

Active licenses: 10

Average: 5000

10. Press the **OK** button to close the Software Product window.
11. Double Click on the **Microsoft SQL Server 2008** software product in the middle pane. The Software Product window appears.
12. Select the **Licenses** tab.
13. Expand the **LAB Microsoft SQL Server 2008 License** item in the list.

14. Select the **Lab Microsoft SQL Server 2008 Purchase** item in the list.
15. Press the **Edit** (Pencil) Icon next to the License red X
16. Notice the **Edit full software license contract** and **Edit full software license purchase** links. These links allow you to go directly to the License and Purchase and edit the full details. In this exercise we will show you where to go in the Software License Portal to edit the same details.
17. Press **Cancel** to close the **Add License Purchase** window.
18. Press **OK** to close the Software Product window.
19. Select the **Microsoft SQL Server 2008** software product in the middle pane. Notice that the graph has changed the values for Total Licenses purchased and that the software is now under deployed by 5 licenses.



20. The Administrator has now met the requirements of Software Compliance for this software product.

## Editing the Software License

The Administrator has found that there are three (3) installations of Microsoft SQL Server 2008 installed in a secure lab on a remote site that does not have a Symantec Management Agent installed and does not participate in endpoint management inventory activities. The three installations must be accounted for and entered into the LAB Microsoft SQL Server 2008 software license to ensure accuracy.

1. Open the Console and navigate to **Home | Service and Asset Management | Software Licensing**. The Software Items appear on the left and the details appear on the right.
2. In the left pane select the **Software Licensing > Software License** item.
3. In the right pane, Enter **LAB** in the search field at the top right side. You should see the **LAB Microsoft SQL Server 2008** software license listed.
4. Double-click on the **LAB Microsoft SQL Server 2008** software license. The Software License edit window will appear.
5. Enter the following details to complete the Software License:
  - a. Under Non-Inventoried Installs:
    - i. Press the **Add** button.
    - ii. Type **3** in the **Count** field.
    - iii. Type **Secure Lab Installs** in the **Description** field.

- iv. Choose **"In Use"** from the **Type** field.
- v. Press the **Assigned** field, and press the **ellipsis (...)** button at the right.
- vi. Choose **Brad Johnson** from the user list, then press **OK**.

Non Inventoried Installs			
<span>+</span> Add <span>✗</span> Remove <span>🔍</span> Lookup			
Count	Description	Type	Assigned
3	Secure Lab Installs	In Use	Brad Johnson

- b. Under Standard Contract Information:
  - i. Description: **LAB Microsoft SQL 2008 License**
  - ii. Start Date: **9/7/2014**
  - iii. End Date: **9/7/2017**
  - iv. Status: **Active**
  - v. Approved: **Yes** (Checked)
- c. Find **Covered Software Product** on the page. Notice that the Software Product called **Microsoft SQL Server 2008** is entered here – this is the association of Software License to Software Product.
- d. Find **Software Purchases** on the page. Notice that the Software Purchase called **LAB Microsoft SQL Server 2008 Purchase** is entered here – this is the association of Software License to Software Purchase.
- e. Press **OK** to close the Software License.
- f. Return to the Software License console page and press the **Run** button at the top of the right pane.
- g. Notice that the information you entered appears in the list:

Software License									
Software License Resource									
<span>Run</span> <span>Group by: ▼</span> <span>Search</span>									
Parameters Software Product <b>Select a value</b> , Include Records For All Dates=True									
License Type	Software Product	Name	Description	Start Date	End Date	Status	Approved	Assigned User	
Software License	FileZilla Client 3.3.5.1	LAB FileZilla Client 3.3.5.1 License							
Software License	Microsoft SQL Server 2008	LAB Microsoft SQL Server 2008 License	Lab Microsoft SQL 2008 License	9/7/2014	9/7/2017	Active	true		

## Understanding "Borrowed" and "Donated" Software Licenses

Some Licensing contracts such as Microsoft Enterprise or Select allow you to use licenses from the version below the one currently being sold. These scenarios can be fulfilled by the following features in Asset Management Suite:

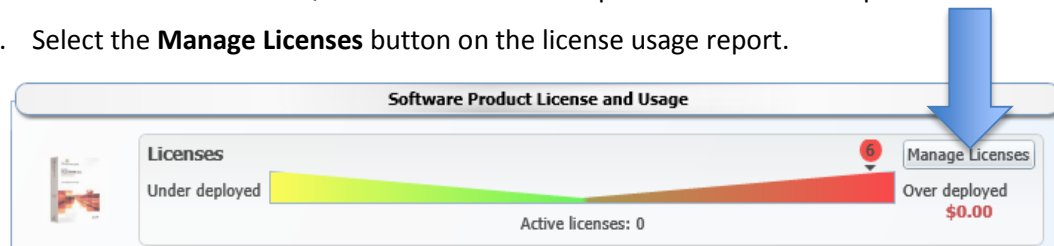
- **Borrowed:** where a quantity of software licenses where a quantity of licenses have been borrowed from another software license. This is usually done to cover down-grade rights where a newer version license is used for an older version.

- **Donated:** where a quantity of licenses has been donated to another software license. This is usually done to cover down-grade rights where a newer version license is used for an older version.

**NOTE:** The software license compliance graphic in the enhanced views does not include non-inventoried, borrowed, or upgraded licenses. It only shows the count of purchased licenses as compared to the count of software product installs detected in the environment.

In this lab scenario the Administrator would like to “Borrow” 2 licenses from the **Microsoft SQL Server 2005** license and apply them to a **Microsoft SQL Server 2008** license. The administrator also notices that the **Microsoft SQL Server 2005** software product does not have License details included. We will start by quickly filling in some information on the Microsoft SQL Server 2005 Software Product:

1. Open the console and navigate to **Manage | Software**.
2. In the left pane, select **Favorites > Installed Products**.
3. Select the **Microsoft SQL Server 2005** software product in the middle pane.
4. Select the **Manage Licenses** button on the license usage report.



This is yet another way you can quickly access software license information.

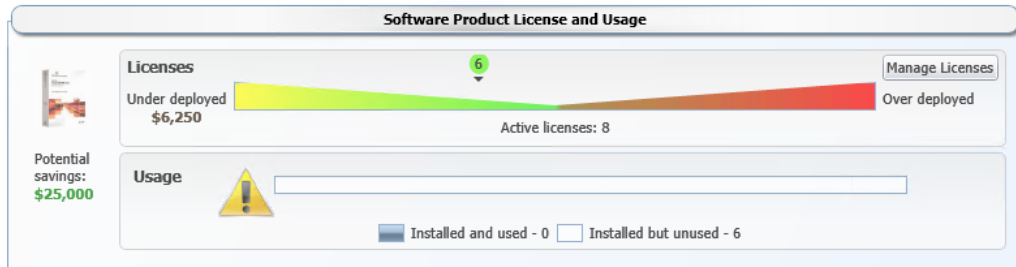
5. Make sure the “**Licensable Product**” check box is selected.
6. Press the **Add License Purchase** button. The Add License Purchase window appears
7. Modify the following fields under **Software Purchase**:
  - a. Date: **Enter Today’s Date**
  - b. Quantity: **8**
  - c. Total Cost: **25000**
  - d. Accounting Code: **Purchase Cost**

The screenshot shows the 'Software purchase' window. It has the following fields and values:
 

- Name: Microsoft SQL Server 2005 Purchase
- Description: (empty)
- Date: 2/12/2015
- Quantity: 8
- Total cost: 25000
- Accounting code: Purchase Cost (selected from a dropdown menu)

8. Press the **Add** button
9. Press the **OK** button to close the Software Product window.
10. The report shows that you are using 6 out of the 8 available MS SQL Server 2005 licenses





11. We will start by taking a look at the Software Compliance report to determine the current status of MS SQL Server 2005 and 2008.
12. In the Console, navigate to **Home | Service and Asset Management | Software Licensing**.
13. In the left pane expand the **Software Licensing > Service and Asset Management Reports > Contract Management > Software Licensing** folder.
14. Select the **Software Product Licensing Compliance** report. The report will appear in the right pane. This report will show all license compliance summaries in tabular form so you can readily see which titles are close to or beyond overages
15. Enter Microsoft SQL in the search field and notice the results only list Microsoft SQL products

The "Software Product Licensing Compliance" report displays a table with the following data:

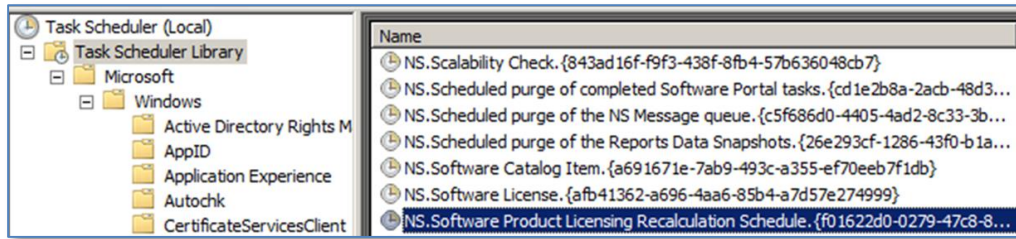
Software Product	Purchased	Borrowed License	Donated License	Installed	Non-Inventoried Installs	Compliance
Microsoft SQL Server 2000	0	0	0	0	0	0
Microsoft SQL Server 2005	0	0	0	6	0	-6
Microsoft SQL Server 2005 (64-bit)	0	0	0	1	0	-1
Microsoft SQL Server 2008	0	0	0	5	0	-5
Microsoft SQL Server 2008 R2 (64-bit)	0	0	0	2	0	-2
Microsoft SQL Server 2012	0	0	0	0	0	0
Microsoft SQL Server 2014	0	0	0	0	0	0

Blue arrows point to the "Purchased", "Borrowed License", and "Installed" columns. The table footer indicates "Rows: 7".

16. Notice that the report does not show the latest results and only accounts for the 5 installed applications and not the 10 purchases or 3 non-inventoried installations for MS SQL Server 2008, as well as the 8 MS SQL 2005 Server licenses you just added.

You may notice from time to time that the **Purchased** or **Non-Inventoried** count has not appeared in some of your compliance reports. This is a result of the **NS.Software Product Licensing Recalculation Schedule** not being run after the creation of new software licenses or purchases. This scheduled task is automatically run every night at 1:00AM by default, but we can initiate it to ensure that our totals are displayed in the next section of the lab.

17. In Windows, Select **Start > Administrative Tools > Task Scheduler**
18. Locate the **NS.Software Product Licensing Recalculation...** task under the **Task Scheduler Library** Folder



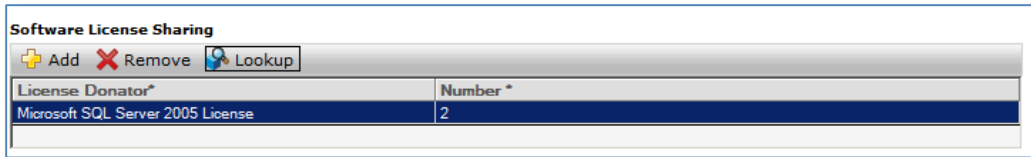
19. Right Click on the task and choose **Run**
20. **Wait until it finishes processing.** It should only take about a minute. (You can refresh the display to check.)
21. Return to the **Software Product Licensing Compliance report**, and press the **Run** button on the right pane. The report will appear in the right pane

Software Product	Purchased	Borrowed License	Donated License	Installed	Non-Inventoried Installs	Compliance
Microsoft SQL Server 2000	0	0	0	0	0	0
Microsoft SQL Server 2005	8	0	0	6	0	2
Microsoft SQL Server 2005 (64-bit)	0	0	0	1	0	-1
Microsoft SQL Server 2008	10	0	0	5	3	2
Microsoft SQL Server 2008 R2 (64-bit)	0	0	0	2	0	-2
Microsoft SQL Server 2012	0	0	0	0	0	0
Microsoft SQL Server 2014	0	0	0	0	0	0

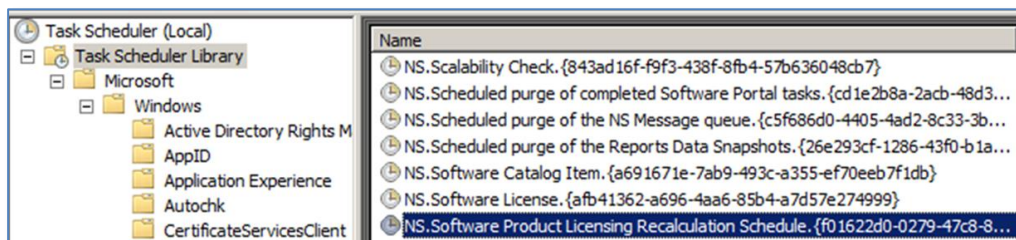
22. You will now notice that it shows the 10 purchased licenses, 5 installed licenses and 3 non-inventoried licenses for a remainder of 2 available Microsoft SQL Server 2008 Licenses. It also now includes the 8 purchased and 6 installed Microsoft SQL Server 2005 licenses with a remainder of 2 licenses available for use.
23. We will now demonstrate the use of borrowed and donated licenses.
24. In the left pane, select **Software Licensing > Software License**.
25. Enter **Microsoft SQL** in the search field in the right pane
26. This should show the 2 Microsoft SQL Server licenses:

License Type	Software Product	Name	Description	Start Date	End Date	Status	Approved	Assign
Software License	Microsoft SQL Server 2005	Microsoft SQL Server 2005 License						
Software License	Microsoft SQL Server 2008	LAB Microsoft SQL Server 2008 License	Lab Microsoft SQL 2008 License	9/7/2014	9/7/2017	Active	true	

27. Double-click on the Microsoft SQL Server 2008 license.
28. Locate the **Software License Sharing** section of the page.
29. Press the **Add** button. The Select a Resource page appears.
30. Select the **Microsoft SQL Server 2005 License** on the list and press **OK**.
31. Enter **2** in the Number field to indicate that you are "Borrowing" 2 licenses.



32. Press the Apply button on the bottom of the page.
33. Return to the **Software License Sharing** section of the page and select the Microsoft SQL Server 2005 entry.
34. Press the **Lookup** button. Notice that it opens the Microsoft SQL Server 2005 license for your review.
35. Press **OK** on both of the Microsoft SQL Server licenses to close them.
36. In Windows, Select **Start > Administrative Tools > Task Scheduler**
37. Locate the **NS.Software Product Licensing Recalculation...** task under the **Task Scheduler Library** Folder



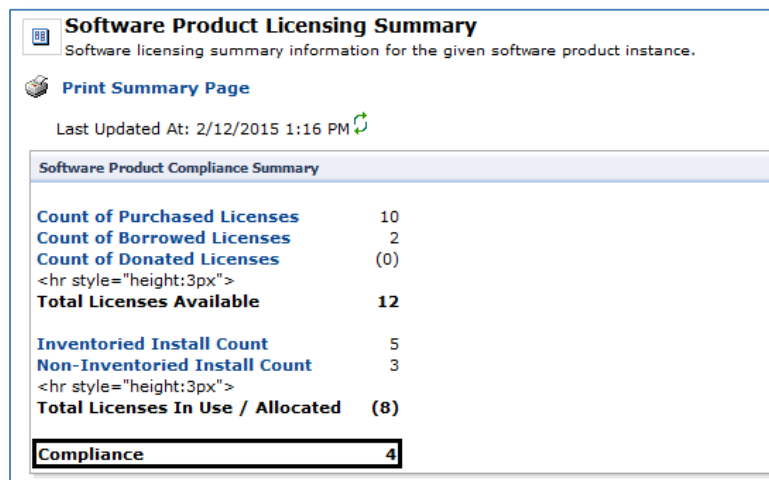
38. Right Click on the task and choose **Run**
39. **Wait until it finishes processing.** It should only take about a minute. (You can refresh the display to check.)
40. In the console, in the left pane, expand the **Software Licensing > Service and Asset Management Reports > Contract Management > Software Licensing** folder.
41. Select the **Software Product Licensing Compliance report.** The report will appear on the right pane. This report will show all license compliance summaries in tabular form so you can readily see which titles are close to or beyond overages.
42. Enter **Microsoft SQL** in the search field and notice the results only list Microsoft SQL products.
43. Review the report and notice that the SQL 2008 license has 2 under the Borrowed column and the MS SQL 2005 license has 2 under the Donated column and that the compliance for both products has been adjusted:

Software Product	Purchased	Borrowed License	Donated License	Installed	Non-Inventoried Installs	Compliance
Microsoft SQL Server 2000	0	0	0	0	0	0
Microsoft SQL Server 2005	8	0	2	6	0	0
Microsoft SQL Server 2005 (64-bit)	0	0	0	1	0	-1
Microsoft SQL Server 2008	10	2	0	5	3	4
Microsoft SQL Server 2008 R2 (64-bit)	0	0	0	2	0	-2
Microsoft SQL Server 2012	0	0	0	0	0	0
Microsoft SQL Server 2014	0	0	0	0	0	0

44. Keep this report open for the next part of this lab.

### Viewing Additional Compliance Data for our Software License

1. Right-click on the **Microsoft SQL Server 2008** product in the report, and select **Resource Manager**.
2. Select **Summaries > Software Product License Summary** from the top menu. You will see a summary of our purchases, borrowed, donated and non-inventoried installs.



Software Product Licensing Summary	
Software licensing summary information for the given software product instance.	
<a href="#">Print Summary Page</a>	
Last Updated At: 2/12/2015 1:16 PM	
Software Product Compliance Summary	
Count of Purchased Licenses	10
Count of Borrowed Licenses	2
Count of Donated Licenses	(0)
<hr style="height:3px;">	
Total Licenses Available	12
Inventoried Install Count	5
Non-Inventoried Install Count	3
<hr style="height:3px;">	
Total Licenses In Use / Allocated	(8)
Compliance	4

### Upgrading or Renewing a Software License

In Asset Management Suite, software license contracts are linked to software products in the software catalog. Software purchases are linked to the software license contract. When you do an upgrade, you are going to be working with a different software product for the new version. This then requires a new software contract and the software purchases that go with the new version of the software.

So you don't lose your audit trail with the old version and purchases of that version of the software, you need to create a new software license for the new version of the software. To assist you with the process of creating the new software license contract, AMS comes with a wizard which you can access through right-clicking on the software license for the old version of the application you are upgrading.

When a software license expires, you can upgrade or renew it. Note that you can upgrade or renew a software license only once. After you upgrade or renew the software license, the context menu options Upgrade Software License and Renew Software License do not appear.

#### You can renew a software license when the following conditions are met:

- For the software license, under Contract Details, the Renewable option is checked.
- The software license is not expired.
- The software license is associated with a software purchase that has quantity data specified.

In this exercise the Administrator has been asked to upgrade their Adobe Reader 9 licenses to newly purchased Adobe Reader 9.4 licenses.

1. Open the Symantec Management Console.
2. Select **Manage | Software** in the main console menu.
3. In the left pane, select **Favorites > Installed Products**.
4. In the middle pane, double-click on the the **Adobe Reader 9** software product.
5. Select the **Licenses** tab.
6. Mark the **Licensable Product** check box.
7. Press the **Add License Purchase** button.
8. Configure the **Add License Purchase** page with the following settings, but use today's date:

**Add License Purchase**

**Software license**

Name: LAB Adobe Reader 9 License

Type: ☒ Per installed computer ☐ Per concurrent use

Comments:

Maintenance renewal cost: 0

Support renewal cost: 0

[Edit full software license contract](#)

**Software purchase**

Name: LAB Adobe Reader 9 Purchase

Description:

Date: 2/12/2015

Quantity: 100

Total cost: 0

Accounting code: Expense

[Edit full software license purchase](#)

OK Cancel

9. Press **Add**
10. Click **OK**. The Software Product interface is closed.
11. The Administrator has just received a software purchase of 100 Adobe Reader 9.4 licenses. This needs to be entered into the console.
12. Open the Console and navigate to **Home | Service and Asset Management | Software Licensing**. The Software Items appear on the Left and the details appear on the right.
13. On the left pane, right click on the **Software Purchase** item and select **Create Software Purchase**.

14. Configure the software purchase as seen below using today's date:

The screenshot shows the 'Software Purchase' form. A red box highlights the title 'LAB Adobe Reader 9.4 Purchase'. Another red box highlights the 'Purchase Date' field, which contains '2/12/2015'. A third red box highlights the 'Quantity' field, which contains '100'. The 'Cost Items' table shows a single entry with 'Purchase Cost' as the accounting code, '2/12/2015' as the date, '10000' as the amount, and 'Incurred' as the status. The 'Total cost' is displayed as '10000,00'.

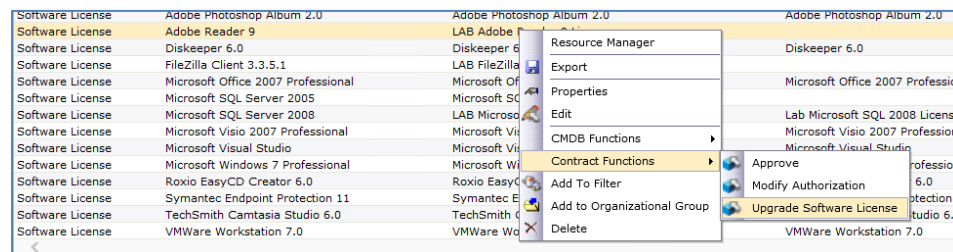
Type	Accounting Code	Date	Amount	Status	Description	Purchase Order
Purchase	Purchase Cost	2/12/2015	10000	Incurred	License Cost	

15. Press **OK**. You are now prepared to upgrade the Adobe Reader 9 to 9.4 licenses.

16. Go to **Home | Service and Asset Management | Software Licensing** from the main console menu

17. Click **Software License** in the left pane

18. In the right pane, right-click on the **Adobe Reader 9**, and then click **Contract Functions > Upgrade Software License**. The **Upgrade an existing software license** page,



19. In the Upgrade an existing software license page, complete the following configuration using today's date:

<b>Software License:</b>	LAB Adobe Reader 9 License		
<b>License quantity:</b>	100		
<b>Original software product:</b>	Adobe Reader 9		
<b>New software license name:</b>	LAB Adobe Reader 9.4	LAB Adobe Reader 9.4 License	
<a href="#">Create new software purchase</a>			
<b>Covered Software Product</b>	Adobe Reader 9.4		
<b>Software License Details</b>			
Maintenance Renewal Cost:	1000		
Support Renewal Cost:	500		
License Type:	Per Installed Node		
<b>Software Purchases</b>	LAB Adobe Reader 9.4 Purchase		
<b>Standard Contract Information</b>			
Description:	LAB Adobe Reader 9.4 License		
Start Date:	2/12/2015	Time:	13 : 59
End Date:	2/12/2015	Time:	13 : 59
Status:	Active		
Approved:	<input checked="" type="checkbox"/>		

20. Press **OK**.
21. Go to **Home | Service and Asset Management | Software Licensing** from the main console menu
22. Click **Software License** in the left pane
23. In the right pane, double click on the **LAB Adobe Reader 9.4 License**
24. Scroll down to the **Former Software License** section and notice that the Adobe Reader 9.4 version is linked to the older version of Adobe Reader.

<b>Former Software License (if renewed/upgraded)</b>	LAB Adobe Reader 9 License
--	----------------------------

25. Press **Cancel** when you finish reviewing.

Software with an expiration date is rare; usually applications have perpetual licenses for the version that was purchased. Many customers use the expiration field for the date the maintenance is going to expire. The renew software license right-click action is intended for renewing the software, not the maintenance.

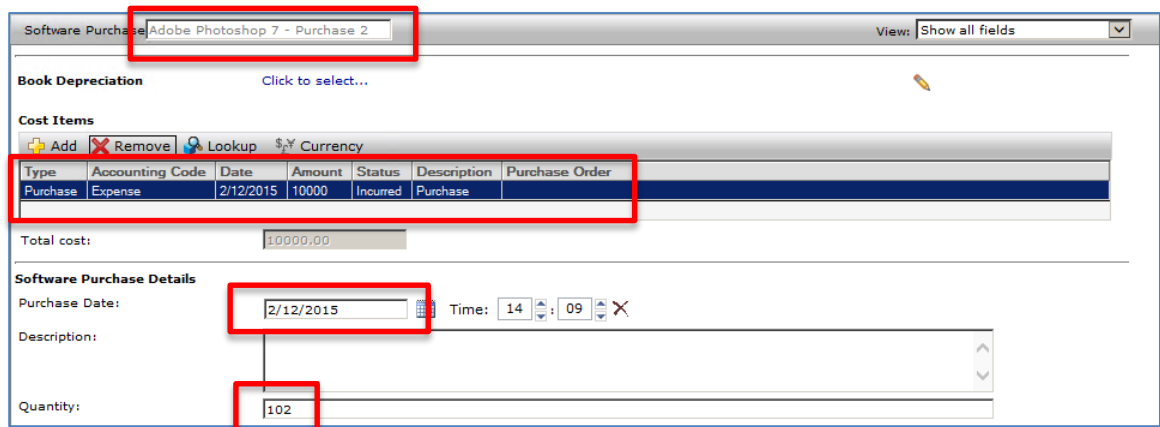
You might be able to use the renewal process and the wizard to record the maintenance renewal but it is very important to test that the compliance calculations are correct. Symantec did not intend it to be used that way and no test cases were run on that scenario.

The compliance report does not include software purchase quantities if the software license contract they are associated to is expired.

The renewal wizard is the same as the upgrade wizard with one exception. You do not link it to a new software product because the new software license contract the wizard is creating will be linked to the same software product as the original software license contract.

In this exercise the Administrator has been asked to renew their Adobe Photoshop 7 licenses

1. Go to **Home | Service and Asset Management | Software Licensing** from the main console menu
2. Click **Software License** in the left pane
3. In the right pane, right-click on the **Adobe Photoshop 7** license, and then click **Contract Functions > Renew Software License**. The **Renew an existing software license** page.
4. In the Renew an existing software license page, Press the **Create New Software Purchase** link
5. A new Software Purchase page appears – Configure with the following settings using today's date:



Software Purchase: Adobe Photoshop 7 - Purchase 2

View: Show all fields

Book Depreciation [Click to select...](#)

Cost Items

[Add](#) [Remove](#) [Lookup](#) \$,¥ Currency

Type	Accounting Code	Date	Amount	Status	Description	Purchase Order
Purchase	Expense	2/12/2015	10000	Incurred	Purchase	

Total cost: 10000,00

Software Purchase Details

Purchase Date: 2/12/2015 Time: 14:09

Description:

Quantity: 102

6. Press **OK** to complete the Software Purchase.



7. Return to the **Renew an existing software license** page complete the following configuration:

**Software License:** Adobe Photoshop 7.0  
**License quantity:** 102

**New software license name:** LAB Adobe Photoshop 7

[Create new software purchase](#)

**Software License Details**

Maintenance Renewal Cost: 1000  
Support Renewal Cost: 500  
License Type: Per Installed Node

**Software Purchases**

Adobe Photoshop 7 - Purchase 2

**Standard Contract Information**

Description: LAB Adobe Photoshop 7 Renewal  
Start Date: 2/12/2015 Time: 14:03  
End Date: 2/12/2015 Time: 14:08  
Status: Active  
Approved: ☒

8. Click **OK** to complete the renewal process.
9. Click **Software License** in the left pane.
10. In the right pane, click **Run** to refresh the report.
11. In the right pane, double click on the **LAB Adobe Photoshop 7 Renewal** license.
12. Scroll down to the **Former Software License** section and notice that the Adobe PhotoShop 7.0 Renewal is linked to the original Adobe Photoshop License.

**Former Software License (if renewed/upgraded)**

Adobe Photoshop 7.0
---------------------

13. Press **Cancel** when you finish reviewing.

### Viewing Automation Policies related to License Compliance

Automation policies are system-defined, or administrator-defined, sets of rules that govern the execution of automated actions. Examples of automated actions include running a report using the parameters that were obtained from the policy, sending an alert to the administrator, and executing a command or running a task on managed computers

Automation policies may be run on a schedule or triggered by Notification Server messages. The policy determines when an action should start, and who or what should be notified of the results. Automation policies are run on the Notification Server computer, so are not concerned with agent-related activity on managed computers. However, some automation policies may be triggered by messages which are generated by agent activity.

In this scenario we will review the built-in Software Compliance automation policies

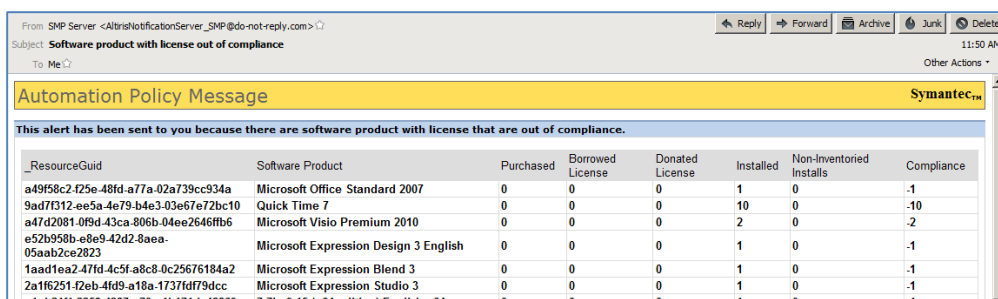
3. In the console main menu, select **Manage | Automation Policies**
4. Select **Software Product with license out of compliance** in the left pane.

The logic of this Policy can be simply explained by the following statement:

- Run a query every week that lists all Software Products that are out of compliance.
- Send an email to a specified user that contains the results of the query.

5. Press the **Test Automation Policy** button on the left pane.
6. Open Mozilla Thunderbird by clicking the icon on the desktop.
7. Double-click on the email named “Software product with license out of compliance”.

You should see the following results: Notice that all of the Software Products are out of compliance in the list.



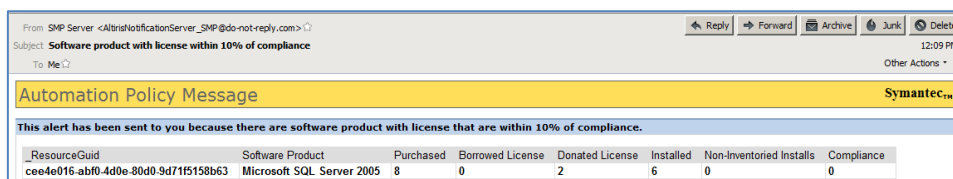
_ResourceGuid	Software Product	Purchased	Borrowed License	Donated License	Installed	Non-Inventoried Installs	Compliance
a49f58c2-425e-48fd-a77a-02a739cc934a	Microsoft Office Standard 2007	0	0	0	1	0	-1
9ad7f312-ee5a-4e79-b4e3-03e67e72bc10	Quick Time 7	0	0	0	10	0	-10
a47d2081-0f9d-43ca-806b-04ee2646ffb6	Microsoft Visio Premium 2010	0	0	0	2	0	-2
e52b958b-e8e9-42d2-8aea-05aab2ce2823	Microsoft Expression Design 3 English	0	0	0	1	0	-1
1aad1ea2-47fd-4c5f-a8c8-0c25676184a2	Microsoft Expression Blend 3	0	0	0	1	0	-1
2a1f6251-42eb-4fd9-a18a-1737fd79dccc	Microsoft Expression Studio 3	0	0	0	1	0	-1

8. In the console main menu, select **Manage | Automation Policies**.
9. Select **Software Product with license within 10% of compliance**. This policy will send an email alert when the license is within 10% of being over.

The logic of this Policy can be simply explained by the following statement:

- Run a Query that lists all Software Products that are within 10% of compliance.
- Send an Email to a specified user that contains the results of the Query.

10. Press the **Test Automation Policy** button on the left pane.
11. Return to **Mozilla Thunderbird**, click **Get Mail** and then double-click on the email named “Software product with license within 10% of compliance”
12. You should see the following results: Notice that your MS SQL Server 2005 Product appears



_ResourceGuid	Software Product	Purchased	Borrowed License	Donated License	Installed	Non-Inventoried Installs	Compliance
cee4e016-abf0-4d0e-80d0-9d71f5158b63	Microsoft SQL Server 2005	8	0	2	6	0	0

## Lab Exercise 3: Managing Software Product Editions

Many customers have asked how they can track multiple editions (Standard, Enterprise, Core, etc.,) of software products within the CMDB. The inventory and software management solutions generally merge all editions into a single representative software product.

By using the Targeted Software Inventory (TSI) function of Inventory Solution, you can identify and create products that can be attached to configured licenses to present compliance data in a consistent fashion. Compliance data for the software installation can be reviewed holistically and contract and license key data associated with software installations can be recorded in a standardized way.

In this exercise we will walk through the steps that can be taken to precisely locate and track true installations of Microsoft SQL Server 2008 R2 **Enterprise Edition** without using the Software Data Provider and Inventory Data Classes that only represent all editions of MS SQL Server 2008 into a single Software Product.

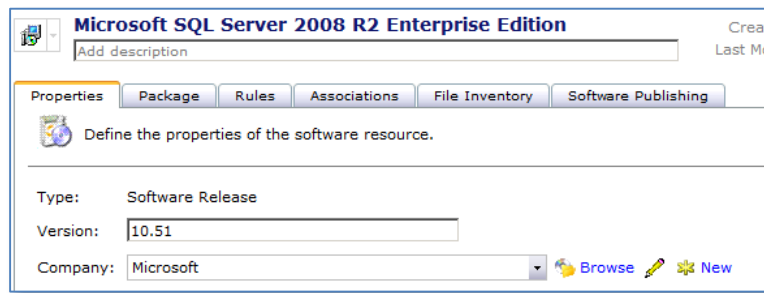
With this software product item we can then apply software asset management associations to ensure the proper accounting of this specific version & edition of MS SQL Server. This method can apply to **any** edition or version of software you wish to track and apply to software license compliance details.

**NOTE:** Be careful typing in this exercise – All items must be typed exactly as shown

### *Create the Software Release You Wish To Track*

1. Switch to the **SMP Virtual Machine**
2. Double click the **Symantec Management Console** Icon on the Desktop.
3. Select **Manage | Software** from the Main Menu.
4. In the left pane, select **Favorites > Installed Products**.
5. Select **Microsoft SQL Server 2008** in the middle pane. Notice that it shows that a few computers have this installed, but there is no way of telling which installations are Datacenter, Enterprise, and Standard or even if it is an R2 version.
6. Select **Manage | Software Catalog** in the main menu.
7. Under the Newly discovered\undefined software pane, choose **+ADD** then select **Software Release**.
8. Replace the **Untitled** name with **Microsoft SQL Server 2008 R2 Enterprise Edition** in the top left section.
9. Under the **Properties** tab, type **10.51** in the **Version** field (Indicates 2008 R2 Version).
10. Press the **Browse** link. The Select Company window appears.

11. Type **Microsoft** in the search field on the right, select **Microsoft**, and press **OK**.



12. Under the **Rules** tab, in the **Detection Rule** area, press the **\*New** link. The **Create Rule** window appears.

13. Enter MSSQL2008R2ENT Reg Rule in the Name field.

14. Press the + button and select **Standard Rule > Registry Key Value**. The registry key value window opens.

15. Enter the following values:

a. Registry Key Path:

HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\MSSQL10\_50.MSSQLSERVER\Setup

b. Registry Entry: Version

c. Registry value: 10.51.

d. **Match:** Substring

16. Press **OK**.

17. Press the + button and select **Standard Rule > Registry Key Value**. The registry key value window appears.

18. Enter the following values:

a. Registry Key Path:

HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Microsoft SQL Server\MSSQL10\_50.MSSQLSERVER\Setup

b. Registry Entry: Edition

c. Registry value: Enterprise Edition

d. **Match:** Substring

19. Press **OK**.

20. The completed rule should look like this:

**Edit Rule**

Name:  Rule type:

Expressions:

- And
  - Registry Key Value
  - Registry Key Value

**Expression type: Registry Key Value**

Registry key path:

Registry entry:  ☐ (Default)

Registry value:

**Expression type: Registry Key Value**

Registry key path:

Registry entry:  ☐ (Default)

Registry value:

21. Press **OK** to close the **Create Rule** window.

22. Press **OK** to close the **Software Release** window.

23. Press **Close** to close the **Software Catalog** window.

At this point, the **Microsoft SQL Server 2008 R2 Enterprise Edition** software release is not manageable within the Software Catalog. A policy must be created and run on a system for the Detection Rule to apply.

### **Create the Targeted Software Inventory Policy**

Targeted software inventory feature determines whether specific software is installed on managed computers. To find the software, it uses the software resource and detection rule information that is defined in the Software Catalog.

1. Select **Manage | Policies** in the main menu.
2. Expand the **Discovery and Inventory** Folder in the right pane.
3. Right Click on the **Targeted Software** Inventory folder and choose **New > Targeted Software Inventory**. It may take a few seconds to load.
4. Name the policy **Detection check for MSSQL2008R2ENT-TSI**
5. Press the **Select Software** button in the **Software to inventory** section.
6. Enter **Enterprise Edition** in the search box in the left pane.
7. Choose the **Microsoft SQL Server 2008 R2 Enterprise Edition** software from the left pane (This is the one you created), then press the Right arrow (>) to put it in the Right Pane.

**Select Software**

Available software:

Software Name	Prod	Versi
Microsoft SQL Server 2008 R2 Enterprise Edition		10...
Microsoft Virtual Server 2005 Enterprise Edition		1.0

Selected software:

Software Name
Microsoft SQL Server 2008 R2 Enterprise Edition

8. Press **OK**.
9. Expand the **Schedule Section** by pressing the **Down Arrow** at the right side of the section.
10. Press the **Add Schedule** button and select **scheduled time**.
11. Scroll to the **Applied To** section.
12. Double-click on the **Windows Computers with Inventory Plug-in** entry.
13. Press the **Update Results** button.
14. Press **Cancel**.

Because this is a Lab environment we will choose to keep the “**Windows Computers with Inventory Plug-in**” target. The Detection Rule will run on all computers in your test environment.

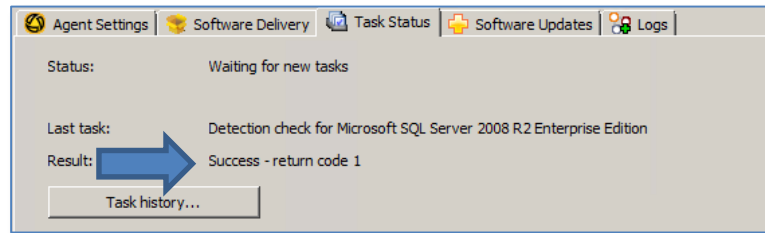
If this was a production environment then you may wish to delete the “**Windows Computers with Inventory Plug-in**” target and create a new target that may be appropriate to the scope of endpoints you wish this policy to run on (i.e., Windows Servers.)

15. Enable the policy by scrolling to the top and selecting the **OFF** button in red and choosing **ON**. It should turn green.
16. Press **Save Changes** (At the bottom of the policy).
17. We will now run a Policy Update to speed up the process... In the Main Menu, select **Settings > Notification Server > Resource Membership Update**.
18. Under **Policy Update Schedule**, Press the **Run** button on the right side. You should see “**Policy Update Schedule has Completed**” at the top of the window when it completes.

### ***Execute the Targeted Software Inventory Policy***

1. Open the **Symantec Management Agent** on the task bar by double clicking it.
2. From the top menu, press the **Update Configuration** button.
3. Select the **Task Status** Tab. You can press the “**Check for Tasks**” button if the policy has not run after the specified time.

- Wait for the Targeted Software Inventory policy to execute successfully at the time you set. You should see **“Success – return code 1”** if it completes successfully.



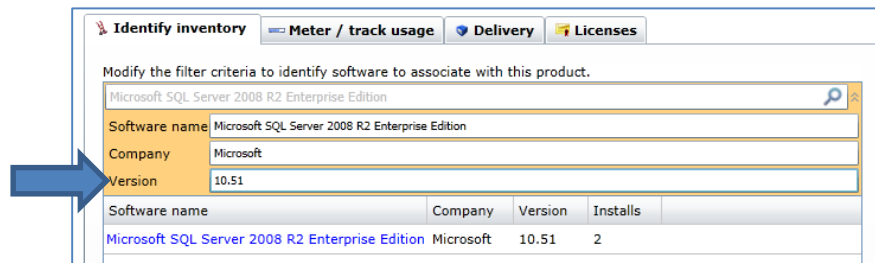
**NOTE:** If it displays **“Success – return code 0”**, return to your Software Release detection rule and check the text in the detection rule entries, then run the Targeted Software Inventory again on a new scheduled time.

- Close the Symantec Management Agent Windows
- Switch to the SD7 VM.**
- Repeat steps 1 – 5 on the **SMP** VM to complete the TSI process. Notice that policy returns **“Success – return code 1”** because the SMP VM has an installation of MS SQL Server 2008 Server R2 Enterprise Edition also.
- Switch to the Win7 VM.**
- Repeat steps 1 – 5 on the **WIN7** VM to complete the TSI process. You should see **“Success – return code 0”** because it does not have MS SQL Server installed.

### ***Manage the Newly Detected Software Component***

- Switch to the SMP VM**
- Select **Manage | Software Catalog** in the main menu.
- Under the **Newly Discovered\undefined** software pane, enter **2008 R2 Enterprise** in the search field.
- You should now see your **“Microsoft SQL Server 2008 R2 Enterprise Edition”** software release. Select this entry
- Select the **Right Arrow (>)** beside the **Managed Software Products** pane. The Software Product window appears.
- Select the **Identify Inventory** tab.

7. Under the **Identify Inventory** tab, delete the **10.51** text in the **Version** field, then retype **10.51** back into the field – This will refresh the view and display 2 installations of Microsoft SQL Server R2 Enterprise in your environment (From SMP & SD7 Virtual Machines).



Identify inventory | Meter / track usage | Delivery | Licenses

Modify the filter criteria to identify software to associate with this product.

Microsoft SQL Server 2008 R2 Enterprise Edition

Software name: Microsoft SQL Server 2008 R2 Enterprise Edition

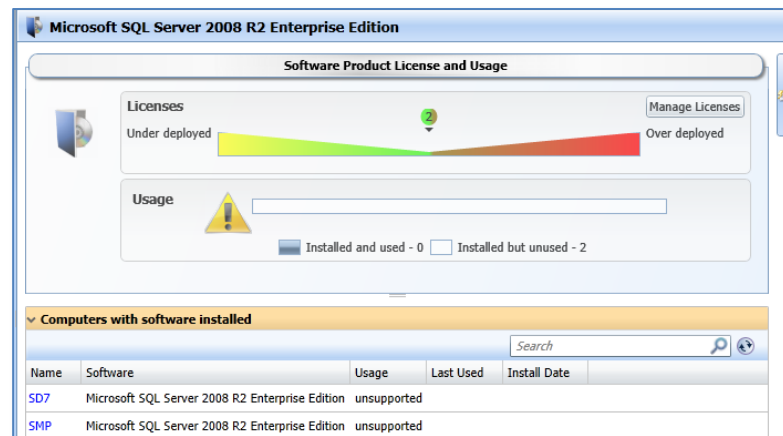
Company: Microsoft

Version: 10.51

Software name	Company	Version	Installs
Microsoft SQL Server 2008 R2 Enterprise Edition	Microsoft	10.51	2

This entry shows the number of endpoints with MS SQL 2008 Server R2 Enterprise Edition installed. If this screen only shows 1 Installation then open the Symantec Management Agent on the SMP or SD7 VM and press Update Configuration.

8. Press **OK**.
9. Press **Close**. The software catalog is closed.
10. In the console, choose **Manage > Software**
11. Select **Favorites > Installed Products** in the left pane
12. Select the newly created **Microsoft SQL Server 2008 R2 Enterprise Edition** product in the Installed Products Pane
13. Notice that **SMP** and **SD7** show up as installations in the right pane. Now that you have a distinct Software Product created, you may now associate licenses, purchases, and other asset attributes to it like purchase orders and inclusion in master software agreements.



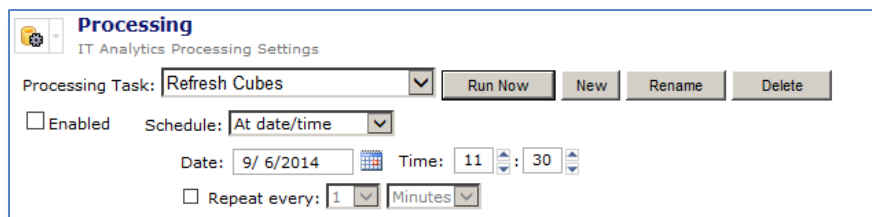


## Lab Exercise 4 (OPTIONAL): Software Reporting

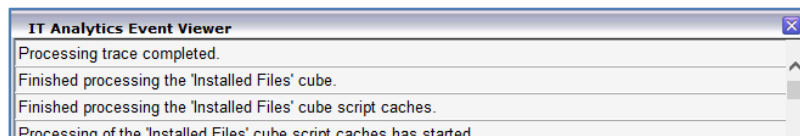
This section will provide a brief walkthrough of the available Software reports and views available in the technologies covered in this lab. It is very important that the Software License Recalculation Schedule and IT Analytics Cubes have been processed to get the most current results:

### Processing the ITA Cubes:

1. From the Symantec Management Console, navigate to: **Settings > Notification Server > IT Analytics Settings**.
2. Select **Processing** in the left pane.
3. Press the **New** button on the right pane.
4. Type **Refresh Cubes** in the Processing Task field
5. Select the **Application Metering, Assets, Computers, Installed Files, Installed Software, Software License Compliance** and **Software Purchases** boxes.
6. Press the **Create Task** button at the bottom of the page
7. Make sure **Refresh Cubes** task is selected in the **Processing Task:** dropdown List and press **Run Now**. *This may take a few minutes*

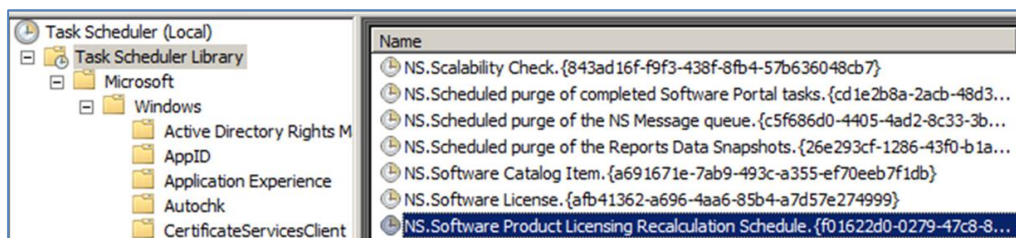


8. When the **IT Analytics Process Viewer** window shows "**Processing trace completed.**" At the top of the list, press **Close**



### Processing the Software License Recalculation Schedule:

1. In Windows, Select **Start > Administrative Tools > Task Scheduler**.
2. Locate the **NS.Software Product Licensing Recalculation...** task under the **Task Scheduler Library** Folder.



3. Right Click on the task and choose **Run**.

4. **Wait until it finishes processing.** It should only take about a minute. (You can refresh the display to check.)

## Software Inventory and License Compliance Reporting

You can view reports to get information about the actions that you perform in Software Management Solution. Predefined reports let you easily view and analyze your Software Management Solution data.

The reports are grouped in folders by type in the Symantec Management Console. You can also create your own custom reports. The following table describes the report types found in the Software Management Solution

Report Categories	Description
Application Management	Contains the reports that display information about the Windows Installer applications that are broken or that have inaccessible source paths.
Application Metering	Contains the reports that display information about the usage, denial and underutilization software in your environment.
Compliance	Contains the reports that display information about the compliance actions and the remediation actions that Managed Software Delivery performs.
Data Providers	Provides a summary of the Data Providers and the status of the import process
Delivery	Contains the reports that display information about the status of the software downloads and executions. If you migrated software delivery data from Software Delivery Solution 6.x, the new delivery reports contain data from both 6.x and 7.x.
Portal	Contains the reports that display the status of software requests that are made through the Software Portal.
Virtualized Software Resources	Contains the reports that display information about the actions (events) that have been performed on the virtual layers that are installed on client computers.

## Exploring Commonly used Software Asset Management Reports

1. Go to the **SMP VM**.
2. Open the Symantec Management Console.
3. Go to **Reports | All Reports** from the main console menu.
4. In the left pane, browse to the **Software Folder** and expand it.
5. Choose the **Application Metering** folder.
6. Run any of the following reports to get an idea of the **Application Metering** reports available:

Report Name	Description
Denial Events by Application	This report gives a list of applications and the number of denials in the last 'N' days.
Executable Usage	Program file install and usage count from legacy Software Metering policies as well as new software-based usage tracking configuration.
Metered software without a file association	Gives a list of Metered software that is missing the file association
Underutilized Software	Identifies installed software that is not being used on computers with the Metering plug-in installed.

7. Choose the **Compliance** folder

8. Run any of the following reports to get an idea of the **Compliance** reports available to you:

Report Name	Description
Software Compliance by Computer	Displays Software Compliance information for all Managed Delivery Policies by Computer.
Software Compliance by Managed Delivery Policy	Displays Software Compliance information by Policy for Managed Delivery Policies.
Software Compliance Detailed Summary	Displays compliance status with respect to each computer for software installed via Managed Delivery policies.
Software Compliance Remediation Summary	Summarizes number of remediation attempts per software delivery policy.
Software Compliance Status	Displays software compliance status for managed delivery policies based upon a software resource
Software Compliance Summary	Summarizes aggregate compliance status of software installed via Managed Delivery policies.

--- END OF LAB ---