Ex 6 - Shopping 5.6 - Efficient use of Application Licenses

Exercise Overview:

- Using License Management
  - Configure License Management in the Shopping console
  - Order and approve a licensed Application
  - Requesting an Application when no licenses are available
- Application Rental
  - Enabling Application Uninstall
  - Enable Application Rental
  - Make an Application 'reshoppable'
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  - Understanding Rental Lifecycle
- End User Uninstall
  - Enable uninstall for XML Notepad
  - Uninstall XML Notepad from the Shopping portal

Efficient use of Application Licenses

In this lab, we will learn how to use the Licensing and Rental features of Shopping to manage the use of expensive software licenses efficiently.

Using License Management

If Shopping is provided with the number of licenses that have been purchased for a particular Application and can determine the number of installed instances of that Application (which it does through ConfigMgr Inventory) it can determine if there are sufficient licenses available each time the Application is requested by a user. Each time a Licensed Application is installed through Shopping, the License Count is incremented.

With this information, Shopping can notify the defined license manager(s) when the number of installed licenses reaches a threshold (expressed as a percentage of the total number of purchased available licenses). It can suspend requests when there are no available licenses left, notifying the defined license manager(s) and current approver that more licenses need to be purchased. The request will only be progressed once more licenses have been added to the Application through the Shopping Console.
In this exercise, you will add Licensing to the XML Notepad Application and observe the behavior as users request the Application.

Note that although Shopping can query ConfigMgr to set the initial count of installed licenses, it does not perform on-going synchronization. From the time the Application has been configured with the number of licenses already installed (License Count), the License Count is only incremented each time a subsequent request for that application is completed through Shopping. If the Application had been recently installed on some clients which had not since sent an updated inventory before the License Count was set on the Application, these installations would never be counted. Moreover, Shopping only keeps account of licenses issued through Shopping requests. If users are able to install applications outside of Shopping (or administrators install these Applications directly through ConfigMgr), the license management feature in Shopping becomes unreliable.

Configure License Management in the Shopping console

You will now add licensing properties to the **XML Notepad** Application in the Shopping Admin Console.

1ETRNAP

480. On **1ETRNAP** in the Shopping Administration console select the **Applications** node and double-click **XML Notepad**
481. Select the **Licensing** tab
Note that Licensing is associated with ConfigMgr sites, so in a multi-site hierarchy license, pools can be defined globally or for individual ConfigMgr sites, (useful if the customer's software procurement model matches the ConfigMgr hierarchy).
482. To the right of the Add/Remove Program Name field, click **Select** and scroll down and select **XML Notepad 2007**

This will associate the XML Notepad Application in Shopping with the **XML Notepad 2007** inventoried program in ConfigMgr, allowing Shopping to determine how many instances of the Application are already installed.

483. Check the option **Define Licensing for Site [All Sites]**
484. The License Count value represents the number of *installed* licenses. Click the **Prefill** button to populate this value based on current ConfigMgr inventory
Note that Shopping does not synchronize with ConfigMgr Inventory, and using the Prefill process simply sets the initial value based on what has been reported to ConfigMgr at the time you click the button.
485. Enter **65** in the Threshold (%) field

The Threshold (%) value defines when the license manager should be notified that available licenses are running low. For example, if there are 100 licenses available for an Application and this threshold is set to 70%, the license manager will receive a notification once 70 installs have occurred and the Application is next requested.

486. Enter a value of **License Count + 2** in the Max Licenses field (should be 3)

Max Licenses represents the total number of purchased licenses for this Application. Therefore, available licenses = Max Licenses – License Count.

487. The License Hold Days value is associated with re-issuing licenses and is covered in the Exercise *Application Rental*. Leave this setting as 0
488. Leave the Manager Email field empty

By default, license notification emails will go to the 'global' License Manager defined during the Shopping Central installation (LicenseManager@1etrn.local in this lab). An additional license manager (or Distribution List) can be defined in the Manager Email property for each Application.

489. Click **OK** to update the Licensing Properties for the XML Notepad Application

Order and approve a licensed Application

In this task, you will shop for XML Notepad on another workstation, bringing the total number of installs to 2 (66% of the Max Licenses).

1ETRNW72

490. Log on to **1ETRNW72** as **User** and open the Shopping portal
     If you don't see the application, check the user you are logged in with!
491. Place an order for the **XML Notepad** Application

1ETRNW101

492. Log on as **Manager1** (the Approver for this request)
493. In the Shopping portal, navigate to the **Approval** tab
     If you don't see the request for XML Notepad, refresh your browser.
494. Click the **Approve** link to approve the XML Notepad request

1ETRNW72

495. On the Shopping portal, go to the **My Software** page
496. Select the **All Orders** tab and note that XML Notepad appears twice for this user, most recently for **1ETRNW72** and previously for **1ETRNW71**

1ETRNW73

497. On **1ETRNW73**, log on as **LicenseManager**
498. Open **Mail** from the Start Menu and note the **Application Exceeded License Threshold** email. Note that the email was sent just after the order was approved by **Manager1.**
     DO NOT approve the Microsoft Project request! The email will be in the inbox.
     This email has been sent because there is now 1 less license from the pool of licenses, and the threshold of 65% has been met. The License Manager will get a similar notification for each approved request for the application until either the **Max Licenses** is increased or all licenses are used up in which case the License Manager will get a **License Count Exceeded** notification, as observed in the next Task.

Requesting an Application when no licenses are available

You will now reduce the number of available licenses and observe what happens when a user requests an application that has no available licenses.

1ETRNAP

499. In the Shopping Console, open the **XML Notepad** Application and select the **Licensing** tab. Note that the License Count has now been increased by 1
500. Reduce the **Max Licenses** by 1 in the console and click **OK**
     This simulates the scenario where all available licenses have been used.

1ETRNW72

501. Log on to **1ETRNW72** as **User** and open the Shopping portal
502. Request the **XML Notepad** Application

1ETRNW101

503. On **1ETRNW101** as **Manager1** (the Approver for this request)
504. Navigate to the **Approval** tab in the Shopping website (You may need to refresh the screen)
505. Click the **Approve** link to approve the request for **XML Notepad**

1ETRNW73

506. Log on as **LicenseManager** (you should be logged in already from a previous task)
507. Resync the view in **Mail** and note an email notification has been sent to the global License Manager with the subject line **License Count Exceeded!**
508. Review the details of the email and note that it states maximum license count has been exceeded and that the installation has been cancelled

1ETRNW72

509. Return to **1ETRNW72** logged on as **User** and in the Shopping portal go to My Software and select the **Pending Approval** tab
510. Note that the XML Notepad order on **1ETRNW72** is still pending approval (even though Manager1 approved the request)
511. Open **Windows Live Mail** and note that the user has not been notified that there is a licensing issue
As far as the requesting user is concerned, the request is simply pending approval. It will be auto rejected in 10 days. Hence it is very prudent to keep track of license counts on the applications you are license managing through Shopping. The threshold emails are meant to help with just that.

1ETRNAP

512. Return to the Shopping Administration console on **1ETRNAP**
513. Open the **XML Notepad** Application, increase the Max Licenses by 1 and click **OK**

1ETRNW71

514. Open mail and Resync
Note that the approver does not receive any notification from Shopping that licenses are now available. He will need to remember to go back to the Shopping portal and attempt to approve the order again at a later stage. Normal escalation to a deputy will occur if the approver forgets about the order.
515. Open the Shopping portal and select the **Approval** tab in the navigation panel, then click the **Pending (1)** menu item to view the pending request for XML Notepad. Click **APPROVE** (You may need to refresh the screen)

1ETRNW73

516. In **Mail**, resynch the view and note that LicenseManager has received the **Application Exceeded License Threshold!** notification again (as only 1 license was added and was immediately used, the next request for this Application will require more licenses to be added)

1ETRNW72

517. Return to **1ETRNW72**, switch to **Windows Live Mail** and click **Send/Receive**. Note that the user has received the Application Approved notification for **1ETRNW72** now
518. Go to the **All Orders** space in the shopping website. Note that the status for XML Notepad 2007 for **1ETRNW72** has now changed to **Order Placed**
Check Junk mail if the email is not in the inbox.

Application Rental

In some cases, an expensive application may only be required for a specific period. Typically, once software is installed on a computer, it remains installed even if it is no longer needed, taking up a license that someone else could be using. Shopping allows users to 'rent' an application for a specific period. At the end of the rental period, the user has the option to extend the rental or to remove the Application, returning the license to the pool.

Enabling Application Uninstall

Before Rental can be enabled on an Application, the Application must have a defined Program in ConfigMgr that will uninstall the Application when the rental period has expired. By defining the uninstall program, users can also optionally remove the Application through the Shopping portal whenever they choose.

1ETRNAP

519. On **1ETRNAP** open **Shopping Administration** console and double-click the **PowerGUI** Application to open the *PowerGUI - ConfigMgr Application Properties* dialog box
520. Select the **ConfigMgr** tab and check the **Can be uninstalled** option. Click **Apply** and keep the properties dialog box open for the next task
    PowerGUI is defined in ConfigMgr as an Application (rather than a Package and Program). If legacy packages and programs are used you will need to define a separate Program for uninstall, and you will see different controls on the ConfigMgr tab in the Shopping Application Properties to enable you to select the uninstall Program.

Enable Application Rental

You will now enable rental of the PowerGUI application.

1ETRNAP

521. In the *PowerGUI –ConfigMgr Application Properties* dialog box, select the **Rental** tab
522. Check the **Enable Rental** option
523. Note that the Application can be made available for regular installation and Rental (Buy/Rental) or Rental Only. Leave the default option (Buy /Rental)
524. Set the following values and keep the properties dialog box open

    Rental Period (days): **30**
    Extension Period (days): **60**
    Max Number of Rental Extensions: **3**

    The Rental Period is the initial duration for which the Application will be available to the user. At the end of the **Rental Period**, the user can opt to extend the rental for the **Extension Period.** *The minimum and maximum values for rental extension are defined by the **Rental Extension Minimum Days** (Default = 60) and **Rental Extension Maximum Days** (Default = 120) settings in the Rental category in the Settings node of the Admin Console.* Users can extend rental as often as defined by **Max Number of Rental Extensions**. Also make note of the **Final Reminder Days,** and **Reminder Days** values.

Make an Application 'reshoppable'

By default, once an Application request has been completed the user is unable to request the same Application from the same computer. When using uninstall and rental, it is expected that users may want to install and remove an application several times on the same computer. It is therefore necessary to make the Application 'Re-shoppable' to make it available to users to reinstall.

1ETRNAP

525. On the **General** tab of the *PowerGUI –ConfigMgr Application Properties* dialog, check the **Reshoppable** option (about two thirds down the dialog box below Cost)
526. Click **OK**

Renting an Application

You will now rent the PowerGUI application as a user

1ETRNW73

527. Log on to **1ETRNW73** as **user** and open the Shopping portal
528. Search for the **PowerGUI** Application and note that the Application now has **Rent** button as well as **Request** button. Click the **Rent** button
    If you do not see the rent option, refresh the browser.
529. Within a minute or so, you should see ConfigMgr notification in the notification area. Shortly afterwards you'll see the **PowerGUI Administrative Console** application available in the Start menu
    The PowerGUI application has no approval. If it did, the normal approval workflow would occur at this point.

Understanding Rental Lifecycle

As it is not practical to wait for rental periods to expire, for the purposes of this training the following defines the process you would see in the real world:

530. When the Application has been installed, the user will be able to use it for the period defined in the Rental Period
531. 5 days (configurable with the **Reminder Days** setting) before the rental period is due to expire, the user will receive a notification email indicating the rental period is about to expire. This email also provides links to enable the user to extend the rental, or to remove the application immediately

532. If the user has not responded to the first reminder email, 1 day (configurable with the **Final Reminder Days** setting) before the rental period is due to expire the user will receive a Final Reminder notification email indicating that the rental period is about to expire and the application will be removed. This email has only a link to remove the application immediately – at this late stage, the rental cannot be extended

533. The user can extend their rental as many times as defined by the Max Number of Rental Extensions setting. As each extension period nears expiry, the same reminder notifications are sent to the user

534. If the user does not extend the rental period, the application will be removed at the end of the Rental Period by running the uninstall deployment defined in the Application properties

535. When the Application is removed, the License Count for the Application is decremented by 1, unless a **License Hold** value has been defined in the Application properties

Many license agreements will not allow a license to be re-issued to another computer within a defined period of first being installed (even if it has been removed from that first computer). In order to honour this license requirement, Shopping uses the **License Hold** Application property to define the minimum number of days that a license must remain unavailable after being installed. If the license agreement states that the license cannot be reissued within 90 days of installation and the License Hold property is set accordingly, but the Application is only rented for 30 days and then uninstalled, the license will not be returned to the pool (i.e. the License Count will not be decremented) until 60 days after the Application is removed – i.e. 90 days after it was first installed. If the application is rented again on that same computer before the full License Hold period has expired, an additional license will be counted (i.e. the computer will effectively have two licenses assigned to it until the License Hold period expires for the first license.

If you need to define License Hold values for some of your Applications, it makes sense that the **Rental Period** should be *at least* the same value as **License Hold**.

End User Uninstall

When an Application that has an Uninstall Program defined has been installed by Shopping, the user is able to uninstall that Application through the Shopping portal. Although the user is able to perform software removal through Programs and Features in Control Panel, managing the process though Shopping enables the license to be reclaimed (if the Application has Licensing enabled).

Enable uninstall for XML Notepad

In this task, you will enable uninstallation of the XML Notepad Application using Shopping.

1ETRNAP

536. Using what you learned, enable Uninstall for the **XML Notepad** application from the **ConfigMgr** tab of the application within the Shopping console

Uninstall XML Notepad from the Shopping portal

You will now use Shopping as an end user to remove XML Notepad from **1ETRNW71**

1ETRNW71

537. Log on to **1ETRNW71** as **User** and open the Shopping portal
538. From the **My Software** page select the **All Orders** tab
539. Note the **Uninstall** button to the right of the XML Notepad order (on Machine **1ETRNW71**). **Do not** uninstall yet
The Uninstall button indicates that the Application has an uninstall option available. The button will be disabled until the Application is installed. You may need to refresh the page until the Status reads **Installed**, at which point the button is enabled.

1ETRNCM

540. On **1ETRNCM**, navigate to the **Shopping** folder under **Device Collections** in the **Assets and Compliance** workspace of the ConfigMgr console. Note the member count of the **XML_Notepad_2007_Uninstall_Device_Shopping** collection

1ETRNW71

541. Click **Uninstall** and observe the banner that appears in the page header

XML Notepad has been queued for uninstall

542. Shortly after the ConfigMgr client will receive the uninstall policy and you should see a notification asking to remove XML Notepad
In normal production scenarios, the uninstall application would run hidden, but it is configured to run interactively in the lab so that you can see it execute.

1ETRNCM

543. On **1ETRNCM**, refresh the view on the **XML Notepad 2007** Uninstall collections and note how the Member Count changes to reflect the uninstall triggered from **1ETRNW71**

The Shopping Receiver will add the machine to the uninstall collection.

1ETRNW71

544. After the uninstall program has completed, open **Windows Live Mail** (click **Send/Receive** if Mail is already open) and note the Application Successfully Uninstalled email notification
Please remember that the email may be delayed as it is waiting for the ConfigMgr client to send an updated State message reflecting the successful uninstall. Carry on with the labs.

Lab Summary

In this lab, you have explored the Licensing feature of Shopping that can enable customers to control licenses of Applications deployed solely through Shopping. Although this provides a level of license management, AppClarity should be used to deliver reliable license management that captures all installed licenses (not only those installed by Shopping). AppClarity also provides a more granular management of licenses and costs and includes license reclaim based on usage of installed applications.

You have also seen how the Rental feature can be used to save costs by re-using expensive licenses where the application is only required for a specific amount of time. Finally, you have seen how users are able to manage their own Applications through Shopping, removing Applications they no longer need and returning the license to the pool in Shopping.

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