1. Software Metering

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| Computers used in  this Lab | ROUTER01  SRV0001  SRV0002  WKS0001  WKS0002 |
| More information | Software metering in System Center Configuration Manager  <https://docs.microsoft.com/en-us/sccm/apps/deploy-use/monitor-app-usage-with-software-metering> |
| Description | In this chapter, we will look at how to configure SCCM to collect information about software when they run as well as we will look how we can report based on collected data |

* 1. Changing Default Client Settings

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| Perform this task on the SRV0002 virtual machine logged on as sccmadmin |
| 01. Start Configuration Manager Console and Click Administration. |
| 02. Click Client Settings |
| 03. Select the default client settings and click Properties |
| 04. Under Default Settings, click Software Metering and change the schedule from 7 days to 1 day |

This can also be achieved via PowerShell using the commands below:

$SiteCode = "001"

$ClientSettingsName = "Default Client Agent Settings"

$schedule = New-CMSchedule -RecurCount 1 -RecurInterval Days

Set-CMClientSetting -Name "$ClientSettingsName" -SoftwareMetering -Enable $True -Schedule $schedule

* 1. Updating Default Software Metering Settings and Clearing existing rules

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| Perform this task on the SRV0002 virtual machine logged on as sccmadmin |
| 01. Start Configuration Manager Console and Click Assets and Compliance. |
| 02. Click Software Metering |
| 03. Click Software Metering Properties |
| 04. Under Software Metering Properties, uncheck the Automatically create disabled metering rules from recent usage inventory data and click Ok |
| 05. Select all already create software metering rules and click delete. |
| 06. On the question Are you sure you want to delete these YY items?, click Yes |

This can also be achieved via PowerShell using the commands below:

#Disable auto-create sw metering rules

Set-CMSoftwareMeteringSetting -AutoCreateDisabledRule $False

#delete all already create sw metering rules

Get-CMSoftwareMeteringRule | Remove-CMSoftwareMeteringRule -Force

* 1. Creating Rule

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| Perform this task on the SRV0002 virtual machine logged on as sccmadmin |
| 01. Start Configuration Manager Console and Click Assets and Compliance. |
| 02. Click Software Metering |
| 03. Click Create Software Metering Rule |
| 04. Under Create Software Metering Rule Wizard, fill up with the following:   * Name: Notepad * File Name: notepad.exe * Original File Name: NOTEPAD.EXE.MUI * Version: \* * Language: - Any –   Click Next  Note: In version, we used \* instead of the version to capture any version  Note: In Language, we used – Any – to capture any language  Note: You can use the Browse button to have all settings filled up automatically  Note: All information can be view when you right click the application and select properties, and then go to the details tab |
| 05. Under Summary, click Next |
| 06. Under Completion, click Close |

This can also be achieved via PowerShell using the commands below:

New-CMSoftwareMeteringRule -ProductName Notepad -FileName notepad.exe -FileVersion \* -OriginalFileName NOTEPAD.EXE.MUI -LanguageId 65535

* 1. Starting Validation Software Metering

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| Perform this task on the wks0001 virtual machine logged on as user01 |
| 01. Open Control Panel and then click Configuration Manager |
| 02. Change to the Actions Tab, select Machine Policy Retrieval & Evaluation Cycle and click Run now  Note: Using this option will force the client to connect to the server and update its settings. By default, this happen every 60 minutes and can be changed under Client Settings -> Client Policy -> Client policy polling interval (minutes) |
| 03. Under Machine Policy Retrieval & Evaluation Cycle click Ok  Note: Depending on the SCCM environment, the user policy retrieval & evaluation cycle can take a few minutes to complete |
| 04. Open notepad.exe and leave it open for couple of minutes, then close |
| 05. Open Control Panel and then click Configuration Manager |
| 06. Change to the Actions Tab, select Software Metering Usage Report Cycle and click Run Now  Note: Using this option will force the client to send report usage data to the server. By default, this happen every 7 days and can be changed under Client Settings -> Software Metering -> Schedule |
| 07. Under Software Metering Usage Report Cycle click Ok |

This can also be achieved via PowerShell using the commands below:

$SMSCli = [wmiclass] "root\ccm:SMS\_Client"

$SMSCli.TriggerSchedule("{00000000-0000-0000-0000-000000000021}")

start-sleep 10

$SMSCli.TriggerSchedule("{00000000-0000-0000-0000-000000000022}")

Start-Sleep 60

for($i=1; $i -le 3; $i++){

Start-Process -Filepath ("notepad.exe")

start-sleep 60

Stop-Process -Name notepad

start-sleep 10

}

$SMSCli = [wmiclass] "root\ccm:SMS\_Client"

$SMSCli.TriggerSchedule("{00000000-0000-0000-0000-000000000031}")

Start-Sleep 60

* 1. Summarization Software Metering Data Manually

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| Perform this task on the SRV0002 virtual machine logged on as sccmadmin |
| 01. Open Command Prompt as administrator |
| 02. Navigate to "C:\Program Files (x86)\ConfigMgr 2012 Toolkit R2\ServerTools” |
| 03. type runmetersumm.exe CM\_001 enter  Note: This task is managed by the Site Maintenance Tasks Summarize Software Metering File Usage Data and Summarize Software Metering Monthly Usage Data that, by default, runs every day between 00:00 and 05:00 |

This can also be achieved via PowerShell using the commands below:

$SiteCode = "001"

Start-Process -Filepath ("c:\Program Files (x86)\ConfigMgr 2012 Toolkit R2\ServerTools\runmetersumm.exe") -ArgumentList ("CM\_$SiteCode") -wait -NoNewWindow

* 1. Monitoring Software Metering Data via Reports

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| Perform this task on the SRV0002 virtual machine logged on as sccmadmin |
| 01. Start Configuration Manager Console and Click Monitoring. |
| 02. Under monitoring, expand Reporting and click Reports |
| 03. Search for Software Metering. Select Users that have run a specific metered software program and click Run |
| 04. Once the report is open, fill up the filters and click view report |
| 05. Select Time of day usage summary for a specific metered software program and click run |
| 06. Once the report is open, fill up the filters and click view report |

This can also be achieved via PowerShell using the commands below:

$SiteCode = "001"

$servername = "SRV0002.classroom.intranet"

$swrule = Get-CMSoftwareMeteringRule -ProductName Notepad

$Date = Get-Date

#Open Report

$dict = @{"Rule Name"="$($swrule.ProductName)"; "Month (1-12)"="$($Date.Month)"; "Year"="$($Date.Year)" }

Invoke-CMReport -ReportPath "Software Metering/Users that have run a specific metered software program" -SiteCode "$SiteCode" -SrsServerName "$servername" -ReportParameter $dict

* 1. Monitoring Software Metering Data via Collections

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| Perform this task on the SRV0002 virtual machine logged on as sccmadmin |
| 01. Start Configuration Manager Console and Click Assets and Compliance. |
| 02. Click Device Collections |
| 03. Select Device Collections and click Create Device Collection |
| 04. Under Specify details for this collection type Computers that Run Notepad.exe Last 30 days under name and select All Systems under Limiting Collection. Click Next |
| 05. Under Define membership rules for this collection, select Add query and click Query Rule |
| 06. Under Query Rule Properties, type Software Metering Rule Notepad and click Edit Query Statement |
| 07. Under Query Statement Properties, click Show Query Language and type  select  \* from  SMS\_R\_System  inner join SMS\_MonthlyUsageSummary on SMS\_MonthlyUsageSummary.ResourceID = SMS\_R\_System.ResourceID  inner join SMS\_MeteredFiles on SMS\_MeteredFiles.FileID = SMS\_MonthlyUsageSummary.FileID and SMS\_MeteredFiles.SecurityKey = "00100037"  where DateDiff(dd, SMS\_MonthlyUsageSummary.LastUsage, GetDate()) < 30  Click Ok  Note: Change the 00100037 by the Rule ID you want to use |
| 08. Under Create Device Collection Wizard, select Use incremental updates for this collection and click Next  Note: It is not recommended to have over 250 collections with the Incremental updates option enabled because it might cause evaluation delays when enabled it for many collections. |
| 09. Under confirm the settings, click Next Twice |
| 10. Under The Create Device Collection Wizard completed successfully, click Close |
| 11. Under device collections, the new Collection is still under update status.  Note: Once the collection is created, there is a process to populate it and it may take a while. In this lab, wait 30 seconds or refresh it couple of times until you see Member Count change to 1 |
| 16. Select the collection and click Show Members |
| 17. The collection will be expanded under Devices and all devices that match the query filter will be displayed. |

This can also be achieved via PowerShell using the commands below:

$swrule = Get-CMSoftwareMeteringRule -ProductName Notepad

$CollUpdate = New-CMSchedule -Start "01/01/2015 9:00 PM" -DayOfWeek Saturday -RecurCount 1

$NewCol = New-CMDeviceCollection -Name "Computers that Run Notepad.exe Last 30 days" -LimitingCollectionName "All Systems" -RefreshSchedule $CollUpdate -RefreshType Both

Add-CMDeviceCollectionQueryMembershipRule -CollectionId $NewCol.CollectionID -RuleName "Software Metering Rule Notepad" -QueryExpression "select \* from SMS\_R\_System inner join SMS\_MonthlyUsageSummary on SMS\_MonthlyUsageSummary.ResourceID = SMS\_R\_System.ResourceID inner join SMS\_MeteredFiles on SMS\_MeteredFiles.FileID = SMS\_MonthlyUsageSummary.FileID and SMS\_MeteredFiles.SecurityKey = '$($swrule.SecurityKey)' where DateDiff(dd, SMS\_MonthlyUsageSummary.LastUsage, GetDate()) < 30"

start-sleep 20

Get-CMCollectionMember -CollectionName "Computers that Run Notepad.exe Last 30 days" | select Name