

SAM Monthly Best Practices Webinars

Session 11: Reporting in ITAM / FNMS

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Agenda

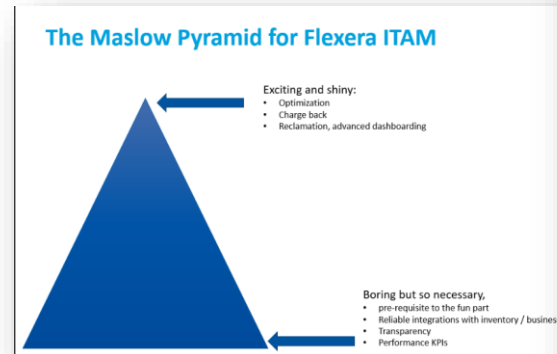
- Last session pointers and answers to questions
- News
 - Updates in the Best Practice Hub
 - ITAM 2022R1.4 (End of July / Early August): Named User Optimization Report
- Reporting in ITAM / Flexera One
 - Web Reports
 - Cognos Reports
 - The Welcome Dashboard and its customization
 - Extracting data for BI tool / notifications
 - Custom SQL Reports / Custom SQL Objects
 - Looking forward in the context of Flexera One

Last Session: Managing Containers

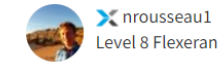
- Useful pointers
 - Recording and PowerPoint: [here](#)
- Answers to questions:
 - Will the Hubs be on premise
 - *Yes, reporting technology may evolve in Flexera One, but the principle (reports / data aggregation) will be on premise.*
 - Is there a timeline for adding support for compliance calculation for containers?
 - *Based on the licensing rules and use case, consumption in containers will be progressively on boarded. Timeline depends on use cases*
 - You mentioned, that Kubernetes is supported for container scanning.
 - Does the scan work with OpenShift Kubernetes Engine?
 - Will there be a support for OpenShift Container Platform scans, too? If yes, when will that be possible?(Not talking about IBM License Service)
 - *Kubernetes on Red Hat Openshift 4 is supported*

News

- ITAM 2022 R1.3 released, 1.4 comes with the Named User License Optimization Report (demo)
- The “[Best practice Hub](#)” gives many pointers to existing best practice and visibility on the 3 coming Hubs. New link to SAM Best practices calls, more details on the SAM Data transparency Hub



Flexera ITAM Best practice information available in Flexera Community



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Apr 19, 2022 02:40 AM

This is all about sharing and applying best practices

You may have seen here and there interesting KB articles, using the powerful customizations possibilities of FNMS to provide extensions to the out of the box value for reporting or automations... The issue is that the articles are spread and unless you know what you look for you may miss some interesting information.

The purpose of this post, that will be extended over the time, is to provide you with a "SAM Best Practices Hub", a single pane of glass to understand and use the published solutions and the coming features: SAM Optimization Hub in 2022 Q3, SAM Operations Transparency Hub in Q4 2022, a SAM Data Transparency Hub in 2023... where these best practices will be progressively incorporated.

The solutions are addressing both ends of the "SAM Maslow Pyramid" (from bottom to top) and are anticipating where Flexera goes with SAM:

Towards a SAM Operations Hub: transparency and KPIs on operations (**Planned for 2022 Q4**)

Let's start with the foundation: there are key questions that any SAM Manager must have answers to before even thinking about compliance or optimization... This structure anticipates the *SAM Operations Hub* that will provide KPIs and answers to these questions

Can I trust my inventory?

Are my inventory import system tasks successful?

This should be the first check of the day. [The system tasks](#) screen (**Out of the box**) (Only show last run = Yes, Status = failed) will give the right data and the logs.

Are my beacons reporting correctly?

Beacons are key components of the ITAM architecture that transfer all inventory and discovery files run inventory tasks, schedule business imports, upload logs... A beacon could stop reporting due to the Beacon Engine Service being stopped, the upload scheduled task disabled, authentication issues (agents can't connect to the Beacon inventory web service and upload NDI files...).

The [Beacons](#) screen (**Out of the box**) gives the list of beacons with status, pending upload files data. Each beacon detail record gives detailed upload status.

Is my inventory exhaustive? Does vCenter report VMs that are not inventoried?

[Virtual Machines Inventory Gaps from vCenter](#) report catches the VMs reported by vCenter imports but not inventoried with an agent.



Named user subscription optimization report

IT ASSET MANAGEMENT

Provides prioritized downgrade or reclamation recommendations per user / subscription

- Gives details on savings allowed by the report (for the user and globally)

Analyzes installed and used applications for the user with the subscription scope

Named user Licenses Consumption & Optimizations

(v1) This view provides user per user, for all publishers, the analysis of Named User license consumption (installed applications, used applications) and provides for Microsoft and Adobe recommendations for optimizations.

Search

Run report

260 results returned

1 000 rows per page

Download

[License Name]

[PriorityOneRecommendationBasedOnInstallations]

<input type="checkbox"/>	[Publisher]	[User Name]	[Email]	[UserStatus]	[LicenseCost]	[OptimalLicenseCost]	[OptimizationForUser]	[TotalOptimization]	[Installed Applications For User Consuming The License]	[Used Applications For User Consuming The License]
<input type="checkbox"/>										
<input type="checkbox"/>	[License Name]: AcmePortal Office 365 (Plan E3) (37)									
<input type="checkbox"/>	[License Name]: Acrobat Pro DC - Named User (4)									
<input type="checkbox"/>	[License Name]: Adobe XD CC - Named User (1)									
<input type="checkbox"/>	[License Name]: Creative Cloud All Apps CC - Named User (7)									
<input type="checkbox"/>	[PriorityOneRecommendationBasedOnInstallations]: (1)									
<input type="checkbox"/>	[PriorityOneRecommendationBasedOnInstallations]: Priority 1: Downgrade user plan to standalone products (based on installed products) (2)									
<input checked="" type="checkbox"/>	Adobe	ITA-LT-100701	Kim.Jefferson@acme.com	Active	782	710	72	20 968	FrameMaker 2017, Acrobat DC (2015) Classic	FrameMaker 2017 (LastUsed on 2022-06-24 on ITA-LT-100701, , Acrobat DC (2015) Classic (LastUsed on 2022-06-24 on ITA-LT-100701,
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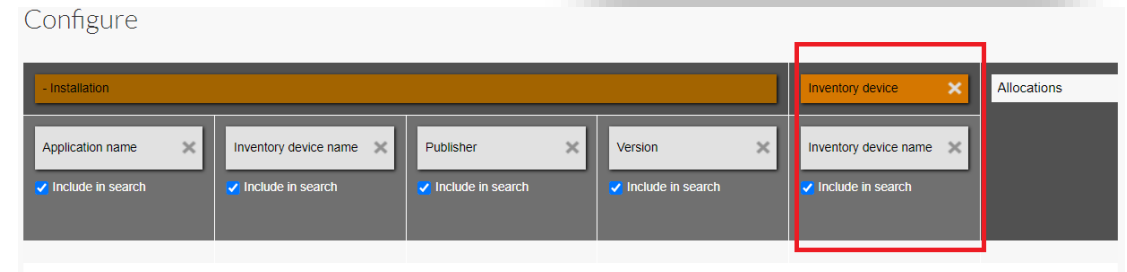
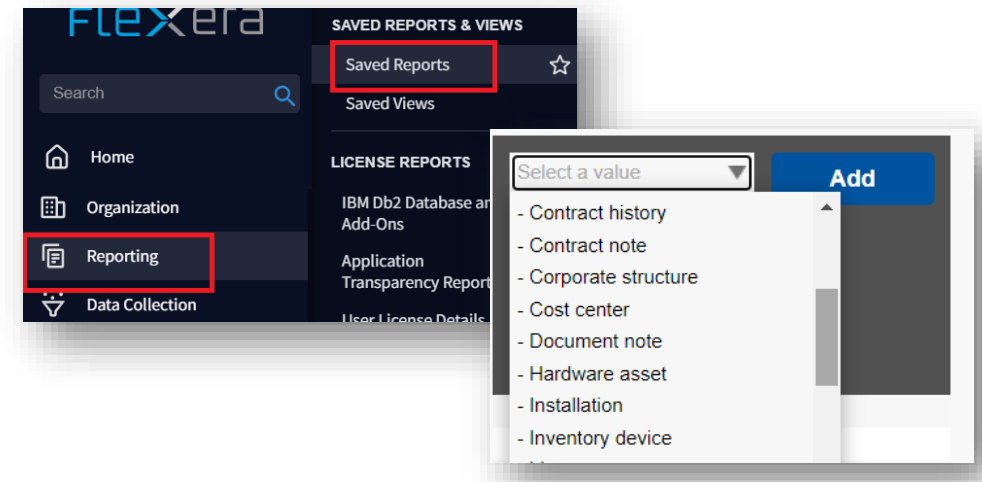
Reporting in ITAM

Agenda

- Web Reports
- Cognos Reports
- The Welcome Dashboard and its customization
- Extracting data for BI tool / notifications
- Custom SQL Reports / Custom SQL Objects
- Looking forward in the context of Flexera One

Web Reporting

- “New Report”
- Pick up the Object
- Best practice from most granular to most generic
 - Installation => Computer => (VM) => Host => Cluster
- Avoid the 1-n links or be very careful!
 - Installation => Computer => Installations
- 1 000 000 row limit
- If a report show 1 000 000 re-run it with a filter!
- When going through multiple linked table, pick up the record in the related object, you will get drill down.

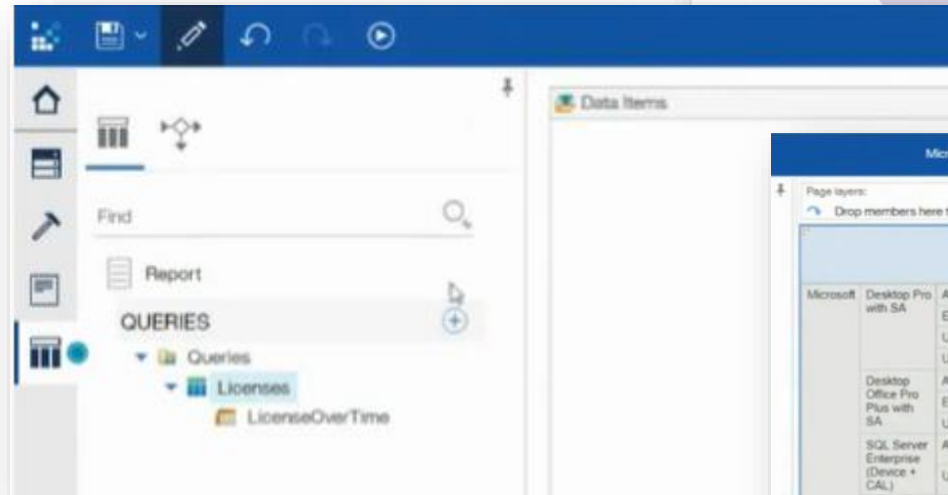
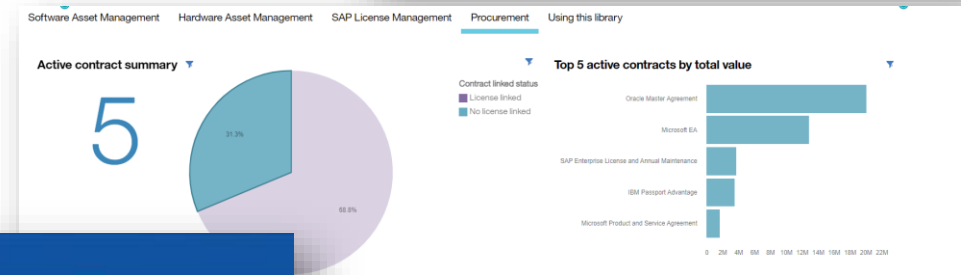
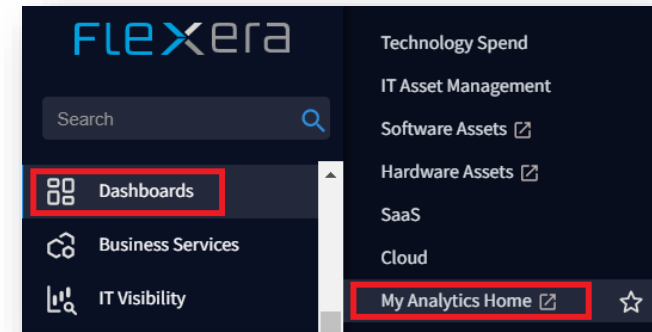


Installation				Inventory device
Application name	Inventory device name	Publisher	Version	Inventory device name
Enterprise Linux	Inxql99720803	Red Hat	Unspecified	Inxql99720803
katello-agent 3.0	Inxql99720803	Red Hat	3.0	Inxql99720803

Installation		Inventory device	
Application name	Inventory device name	Inventory device name	Version
Enterprise Linux	Inxql99720803	Inxql99720803	Unspecified

Cognos Reporting

- Data Sources / Dimensions
- Choosing the report type
- Building the report
 - Query
 - Properties
 - Drill Through
 - Filter
 - Parameters



The screenshot shows a Cognos report titled "Microsoft Licenses Consumption Over time". It displays a table with columns for "Purchased (max qty)", "Consumed (max qty)", and "Shortfall/Availability (max)". The table is organized by "Page layers" and "Context filter". The data is presented in a grid format with rows for different Microsoft products and regions.

			6 - 2020			7 - 2020			8 - 2020			9 - 2020		
			Purchased (max qty)	Consumed (max qty)	Shortfall/Availability (max)	Purchased (max qty)	Consumed (max qty)	Shortfall/Availability (max)	Purchased (max qty)	Consumed (max qty)	Shortfall/Availability (max)	Purchased (max qty)	Consumed (max qty)	Shortfall/Availability (max)
Microsoft	Desktop Pro with SA	APAC												
		EMEA							0	286	-286			
		Unidentified							0	207	-207			
		USA							0	1	-1			
		USA							0	500	-500			
	Desktop Office Pro Plus with SA	APAC							0	5	-5			
		EMEA							0	6	-6			
		USA							0	19	-19			
	SQL Server Enterprise (Device + CAL)	APAC							0	2	-2			
		USA							0	5	-5			
	Project 2016 Professional	APAC												
		EMEA							0	1	-1			
		USA							0	2	-2			
	Project 2016 Standard	EMEA							0	3	-3			
		USA							0	3	-3			
	Visio 2016 Professional	APAC												
		EMEA							0	3	-3			
		USA							0	2	-2			
	Visio 2016 Standard	EMEA							0	3	-3			
		USA							0	1	-1			

Creating Custom SQL Report (On Premise)

More information: [Customizing ITAM & FlexNet Manager](#)

Use FNMP

```
IF OBJECT_ID ('dbo.MyCustProcedure', 'P') IS NOT NULL
DROP PROCEDURE dbo.MyCustProcedure -- drop Stored Procedure if it exists
GO
CREATE PROCEDURE dbo.MyCustProcedure AS
--Do whatever query you wish here to select data

SELECT
cc.ComputerName as 'Computer Name'
, cc.ProcessorType as 'Processor Type'
, cu.UserName as 'Main User'
, cu.Email as 'Main User email'

FROM ComplianceComputer cc
INNER JOIN ComplianceComputerCurrentUserScoped cc2 on cc2.ComplianceComputerID = cc.ComplianceComputerID -- scope the data
LEFT JOIN ComplianceUser cu on cu.ComplianceUserID = cc.PrimaryComplianceUserID

GO

DECLARE @ViewName nvarchar(64), @tenant int
SET @ViewName = 'MyCustView'-- Unique Name you want to display for object
SET @tenant = 1 -- Tenant for which this view applies
EXEC ComplianceCustomViewRegister
    @TenantID = @tenant ,
    @ComplianceSavedSearchSystemID = NULL,
    @SearchName = @ViewName,
    @SearchNameResourceName = NULL,
    @Description = 'v1: This is a sample of custom SQL Report',
    @DescriptionResourceName = NULL,
    @SearchGridLayout = NULL,
    @SearchXML = NULL,
    @SearchSQL = 'EXEC dbo.MyCustProcedure',
    @SearchSQLConnection = 'Live',
    @SearchMapping = NULL,
    @ComplianceSearchType = 'Custom',
    @ComplianceSearchFolderSystemID = -17,--will create the view at the root folder. Pick up the folder ID you wish
    @CanDelete = 1,
    @CanChangeMasterObject = 0
```

Creating Custom Web Reporting Objects

- This is one level higher in term of complexity
 - Objects are stored as “ComplianceSearchType” and Objects as “ComplianceSerachTypeColumn”
 - Create a new: “Days since last inventory” attribute in inventory

```
EXEC dbo.ComplianceCustomViewColumnRegister
    @TenantID = 1,                -- REQUIRED - set Tenant
    @ComplianceSearchType = 'Computer', --REQUIRED - links to object
    @ColumnName = 'DaysSincelastInventory_c', -- column name displayed in GUI
    @ColumnNameResourceName = NULL,
    @SelectName = 'DateDiff (Day, CAST (InventoryDate as date), GetDate())', -- view\column from query
    @WhereClause = 'DateDiff (Day, CAST (InventoryDate as date), GetDate())', -- view\column from query
    @FilterGroupType = 1, -- do not change
    @DefaultFilterType = 1, -- do not change
    @SelectByDefault = 0 -- 1 = box is checked for view; 0 = box is not checked for view
```

- Create a New: “vCenter IP Address” attribute for cluster object

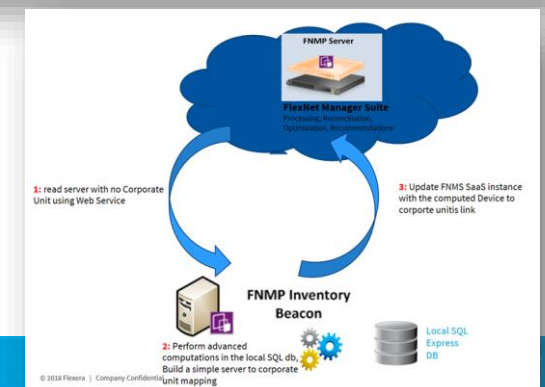
```
EXEC dbo.ComplianceCustomViewColumnRegister
    @TenantID = 1,                -- REQUIRED - set Tenant
    @ComplianceSearchType = 'Cluster', --REQUIRED - links to object
    @ColumnName = 'vCenter_c', -- column name displayed in GUI
    @ColumnNameResourceName = NULL,
    @SelectName = 'SUBSTRING (ExternalName, 1, CHARINDEX ('|',ExternalName + '|') -1)', -- view\column from query
    @WhereClause = 'SUBSTRING (ExternalName, 1, CHARINDEX ('|',ExternalName + '|') -1)', -- view\column from query
    @FilterGroupType = 1, -- do not change
    @DefaultFilterType = 1, -- do not change
    @SelectByDefault = 0 -- 1 = box is checked for view; 0 = box is not checked for view
```

Extracting Data

- A New REST API ([ReportsExecute](#), that you can combine with [ReportsIndex](#))
 - Allows to catch the output of any report
 - Paginated
 - JSON output
 - Allows filtering on the indexed column of the report
- The [The New Generic ITAM REST API for querying any web report is available! A PowerShell example](#) KB article
 - Gives a PowerShell example
 - Requests report name
 - Runs the the ReportsExecute call
 - Paginates through all pages the output
 - Converts into CSV the output
- A GetCustomViewResult soap API can be used (cloud / on premise)
 - An example of use [here](#)
 - Csv, not paginated

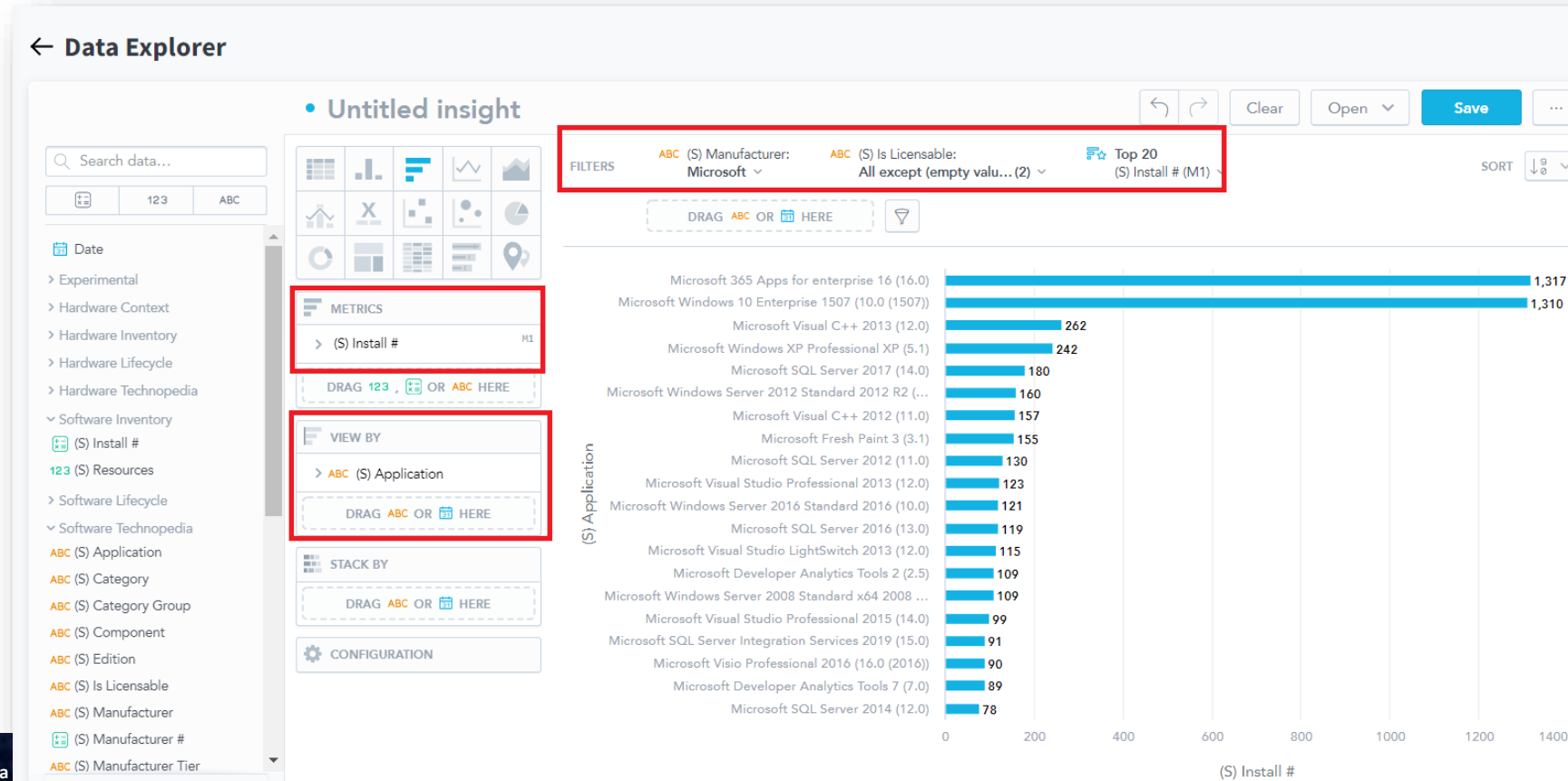
```
1 # Parameters that can be passed to the script. If these are null, user will be prompted for entry.
2 [cmdletbinding()]
3 param(
4     [parameter(Mandatory = $true,
5         HelpMessage="Enter 1 for US, 2 for EU")]
6     [int]$region,
7     [parameter(Mandatory = $true,
8         HelpMessage="Enter the org ID, can be found in the URL. Example: app.flexera.com/orgs/23456, enter 23456")]
9     [int]$orgID,
10    [parameter(Mandatory = $true,
11        HelpMessage="Enter your refresh token. Details on generating this can be found in Flexera One API Help.")]
12    [string]$refreshToken,
13    [parameter()]
14    [string]$customReport = $null,
15    [parameter()]
16    $reportID = $null
17 )
18
19 if ([string]::IsNullOrEmpty($reportID) -and ([string]::IsNullOrEmpty($customReport))) {
20     Write-Host "No Report ID or Custom Report Name was supplied." -fore white -back black
21     $customReport = Read-Host "Custom Report Name to Execute"
22 }
23
24 # Select correct URL set based on region selection
25 if ($region -eq 1) {
26     $loginUrl = 'https://login.flexera.com/oidc/token'
27     $endpoint = 'https://beta.api.flexera.com'
28 }
29 elseif ($region -eq 2) {
30     $loginUrl = 'https://login.flexera.eu/oidc/token'
31     $endpoint = 'https://beta.api.flexera.eu'
32 } else {
33     Write-Error "Region input was not 1 or 2!" -ErrorAction Stop
34 }
35
36 # Generate access token based on input org ID and refresh token.
37 try
38 {
```

```
PS E:\> .\CustomReportREST_v1.2.ps1
cmdlet CustomReportREST_v1.2.ps1 at command pipeline position 1
Supply values for the following parameters:
(Type ? for Help.)
region: 2
orgID: 3
refreshToken: sKSw...MPfkkGqchR1E
No Report ID or Custom Report Name was supplied.
Custom Report Name to Execute: Clusters for API
Generating access token...
Access token generated!
Getting reportID based on report name: Clusters for API
Executing custom report with ID:462. Complex reports may take a while.
Exported to E:\ReportOutput.csv
Process Complete!
```



Looking forward

- Flexera Unified Reporting
 - Ability to query and join data from
 - IT Visibility (Normalized Configuration Management View of the technology estate)
 - ITAM (Inventory / Hardware Asset Management / Contract Management / Software Asset Management)
 - Cloud Migration / Cloud Optimization / Business Services
 - Technology currently used in IT Visibility





THANK YOU