

# SUGAPI Dashboard in PBI

Security – Analyze KBs Superseded



# **Table of Contents**

1	SUGAPI Dashboard in PBI		.3
2	Solution Architecture		
	2.1	Download a JSON file from SUGAPI website	.4
	2.2	WSUS Server and SUSDB Updated	.6
	2.3	PowerBI Desktop installation	.6
	2.4	PowerBI Dashboard	.6
		2.4.1 How to update data in PowerBI Dashboard	10
3	Un	derstanding and explaining the results1	1



#### 1 SUGAPI Dashboard in PBI

This document will help the Security team to analyze the superseded KBs, delivered monthly by Microsoft.

The SUGAPI (<u>aka.ms/sugapi</u>) is a RESTful API that we can use to engage the Microsoft Security Response Center (MSRC) in the following ways:

- Get security update summaries and details using the Common Vulnerability Reporting Framework (CVRF).
- Report suspected cyberattacks or abuse originating from Microsoft Online Services.
- Notify Microsoft of any planned penetration tests against your Azure assets.

The propose of this documentation is to show you how to get the CVRF summary and combining this info with WSUS Database will provide you a PowerBI Dashboard that brings insightful information about superseded KBs and more.

The dashboard generate will have the following information:

- Microsoft Common Vulnerabilities and Exposures (CVE).
- Product involved with CVEs.
- KBs associate with CVEs.
- Superseded KBs.
- Supersedes KBs.



### 2 Solution Architecture

As mentioned before this Dashboard will combine info from SUGAPI and from WSUS database. Therefore, in order to make this solution to work the following steps are necessary:

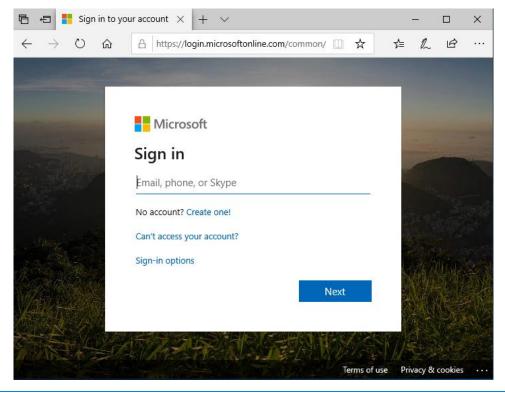
- Download a JSON file that contain CVE info.
- WSUS server available to connect.
- SUSDB in SQL database, WID database won't work.
- Read permission on SUSDB
- PowerBI Desktop installed.
- PBI template file that does the analysis.

#### 2.1 Download a JSON file from SUGAPI website

To download a JSON file from SUGAPI, we need a computer with Windows 10 operating system, with internet access. These are the steps to download JSON file:

#### Steps

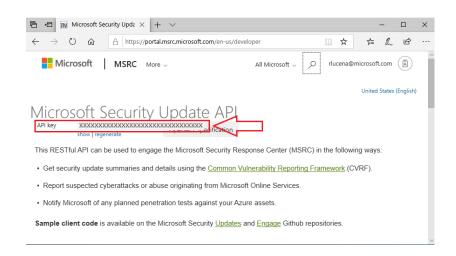
- 1. Open your web browser, and navigate to <a href="mailto:aka.ms\sugapi">aka.ms\sugapi</a>
- 2. Insert your Microsoft credential to access the website.





#### Steps

3. Click on **show** and copy your API key



- 4. Open a PowerShell prompt as administrator.
- 5. Run the command:

Install-Module -Name msrcsecurityupdates -force

Type "Y" to confirm

6. Run the commands:

```
Import-Module -Name msrcsecurityupdates -force

Set-MSRCApiKey -ApiKey "<your API Key>" -Verbose
    #Replace <your API Key> by your key copied from SUGAPI website

$monthofInterest = "2020-Jan"
    #Replace "2020-Jan" by year-month you'd like to get information

$Output_Location = "C:\temp\cvrf.json"
    #Inform a path where cvrf.json will be created

Get-MsrcCvrfDocument -ID $monthofInterest -Verbose | ConvertTo-Json -Depth 100 | Out-File $Output_Location
```



## 2.2 WSUS Server and SUSDB Updated

It is expected from you to have a WSUS Server available, that way PBI dashboard will get data from SUSDB and this database should also be kept up to date.

**IMPORTANT:** It is not part of this document WSUS implementation steps.

### 2.3 PowerBI Desktop installation

Download the version of Power BI Desktop that matches the architecture (x86 or x64) of your Windows OS. Run the MSI installer and follow the setup steps.

https://www.microsoft.com/en-us/download/details.aspx?id=45331

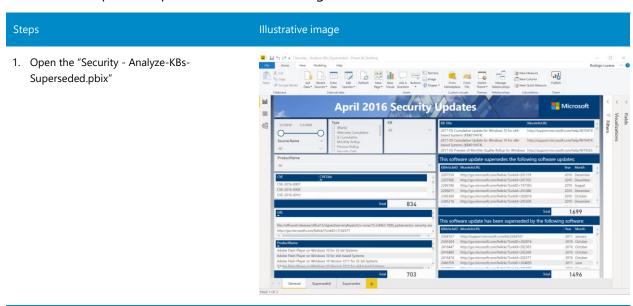
#### 2.4 PowerBI Dashboard

Once you have all requirements configured, open the PBI template file, but before you start using it is important that you understand how this PBI works.

Basically, this PowerBI dashboard will consume all JSON file available under a determined path and will get some tables in SUSDB and execute some queries in SUSDB.



This JSON files are the results from the previously executed PowerShell cmdlets to create/extract them from SUGAPI website. Now we will configure PBI dashboard to get information from JSON file stored in a previous path, and we must configure the SUSDB connection.

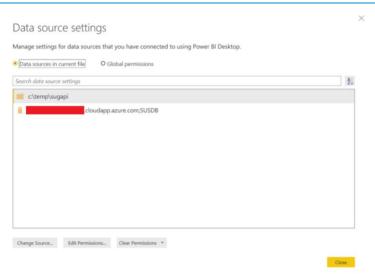


2. Click on Edit Queries > Data source settings



3. Change the sources, as needed.

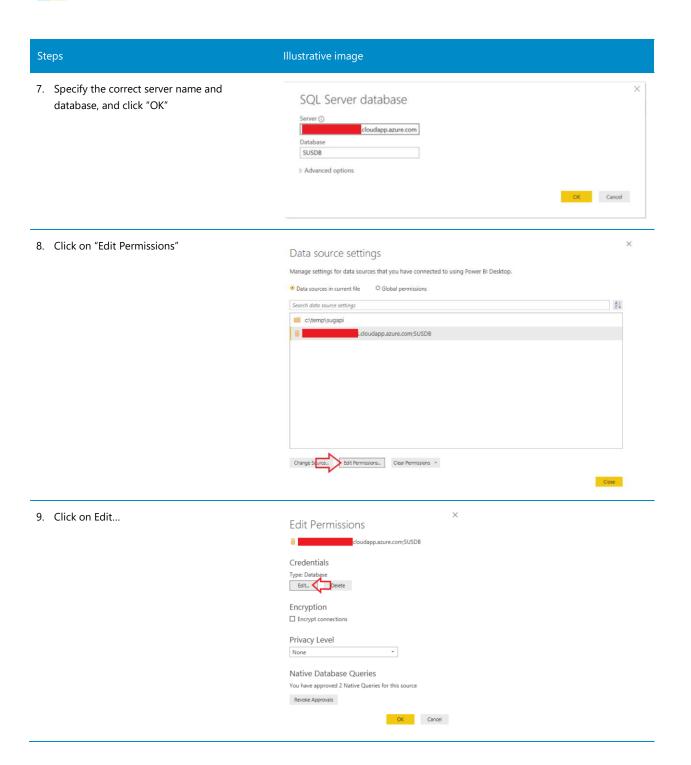
IMPORTANT: in this sample c:\temp\sugapi \( \) the folder where you have created the JSON files. And the databaseserver.eastus.cloudapp.azure.com; SUSDB where the WSUS Server and the database are.



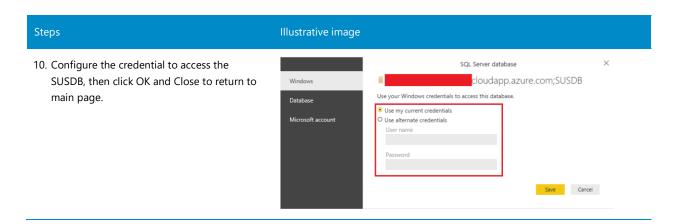


# Steps Illustrative image 4. Assuming you have to change the source for Data source settings JSON files, so select c:\temp\sugapi and click Manage settings for data sources that you have connected to using Power BI Desktop. on "Change Source". Data sources in current file O Global permissions Search data source settings c\temp\sugapi ons... Clear Permissions \* 5. Specify the correct folder and click "**OK**" Folder Remember: this is the folder where you Folder path generated the json files, when the C:\xxx\json files PowerShell cmdlets was executed. OK Cancel 6. To change the connection to SUSDB, select Data source settings the current connection and click on "Change Manage settings for data sources that you have connected to using Power BI Desktop. Source" Data sources in current file Global permissions Search data source settings c\temp\sugapi Clear Permissions \*



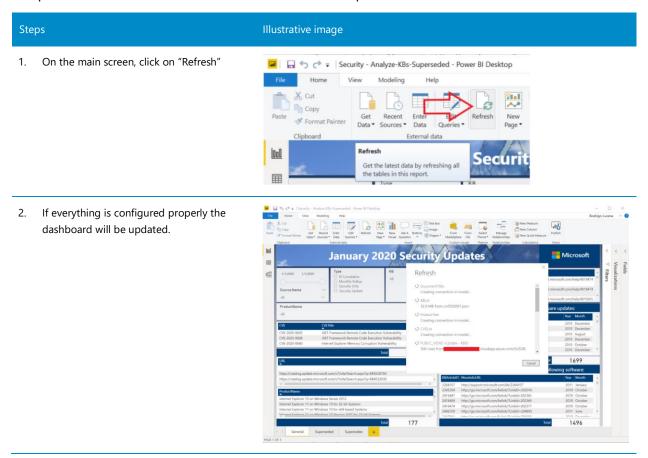






#### 2.4.1 How to update data in PowerBI Dashboard

Once you have changed the Server connection and configured the source file properly, you have to update all data. Follow the instructions bellow to update the dashboard.



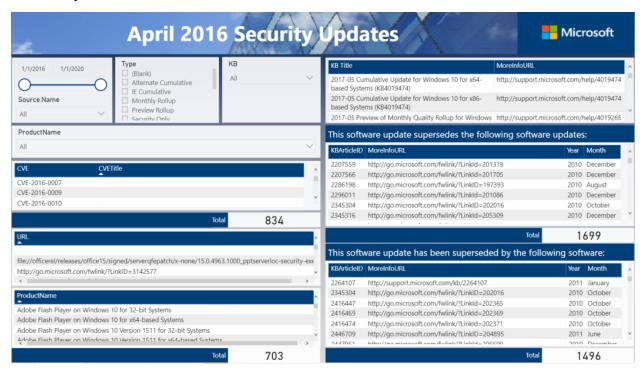


# 3 Understanding and explaining the results

Once we have the PowerBI Dashboard updated, it is easy to get info about CVE, KB, Superseded KB and so on.

There is a variety of options to filter information, thus you can filter by period of time, by JSON file (Source.Name), Type of update, also KB number or ProductName.

Once you have applied those filters you will have the information about the URL to download the fix or the URL that explains the fix. Additionally, you will see the both newer and older KB based on your filters.



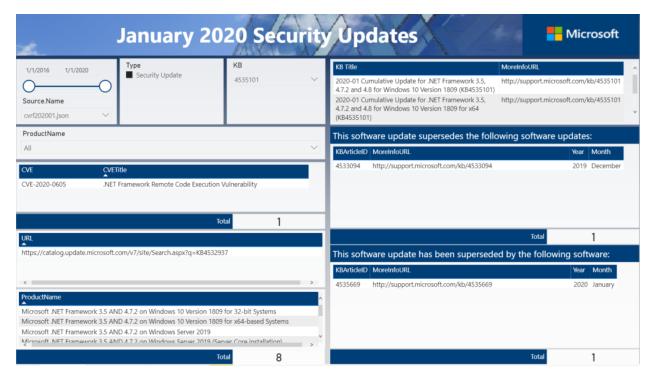


#### **SAMPLE 001: Dashboard -> General tab**

Source.Name: JSON from January 2020.

Type: Security Update.

KB: 4535101.

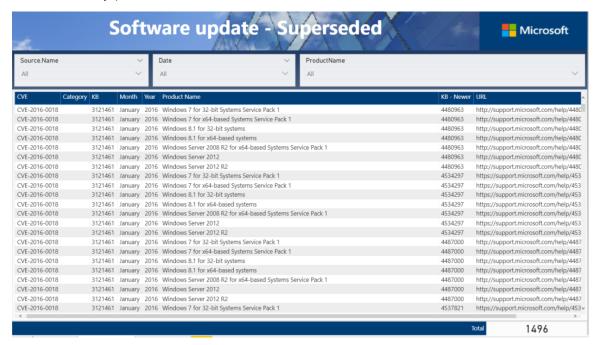


So applying those filters, you got the information about URL do Download the fix from Microsoft Catalog, also info about the ProductName involved, more details about this KB we can consult the Microsoft Support webpage, and finally we can get information about the older KB (4533094 | December 2019) or the newer KB (4535669 | January 2020).

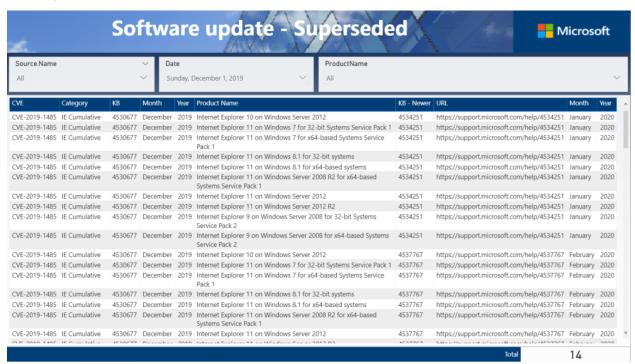


#### **SAMPLE 002: Dashboard -> Superseded tab**

In this tab is possible to get a list of all Superseded KB, based on Source.Name (JSON file), or by date, or also by product.



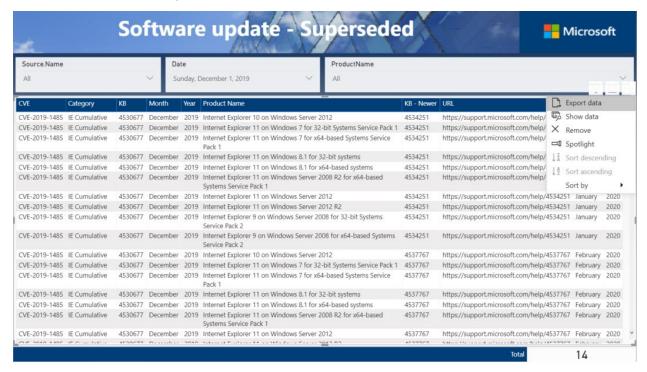
Let's say we need to know the KB newer based on all KB delivered on December 2019.



So now we have a list of current KB (December/2019 our filter), and the KB-Newer its URL and Date.



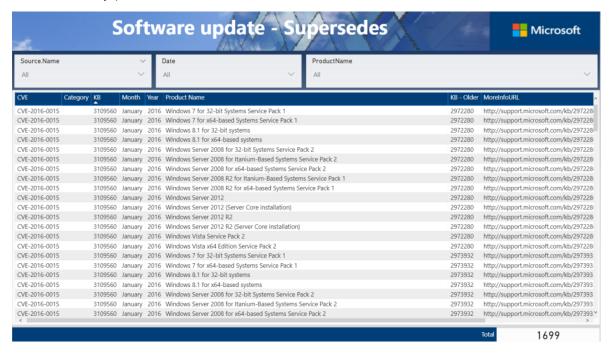
It's also possible to export this list to CSV file, if is needed. To do that click on the list (anywhere), then click on (...) upper right corner, then click on "Export data"



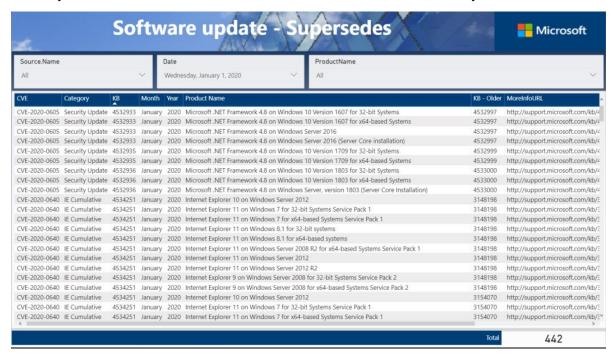


#### **SAMPLE 003: Dashboard -> Supersedes tab**

In this tab is possible to get a list of all Supersedes KB, based on Source.Name (JSON file), or by date, or also by product.



Let's say we need to know all older KB based on KB delivered on January 2020.



So now we have a list of current KB (Jan/2020 our filter), and the KB-Older, its URL and Date.



It's also possible to export this list to CSV file, if is needed. To do that click on the list (anywhere), then click on (...) upper right corner, then click on "Export data"

