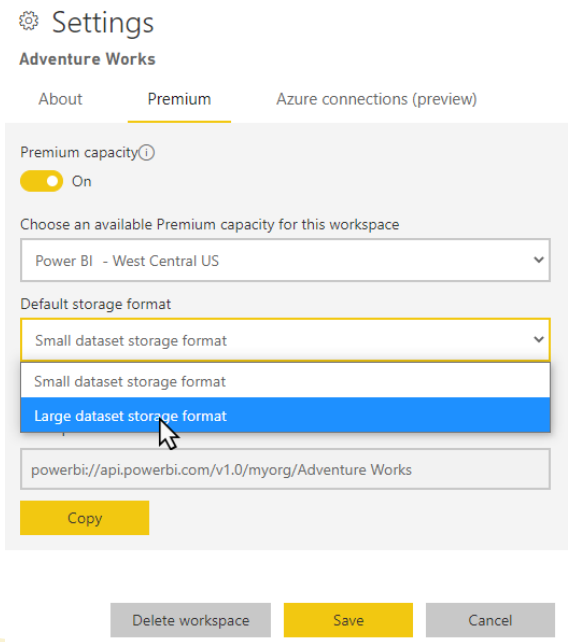
Power BI News

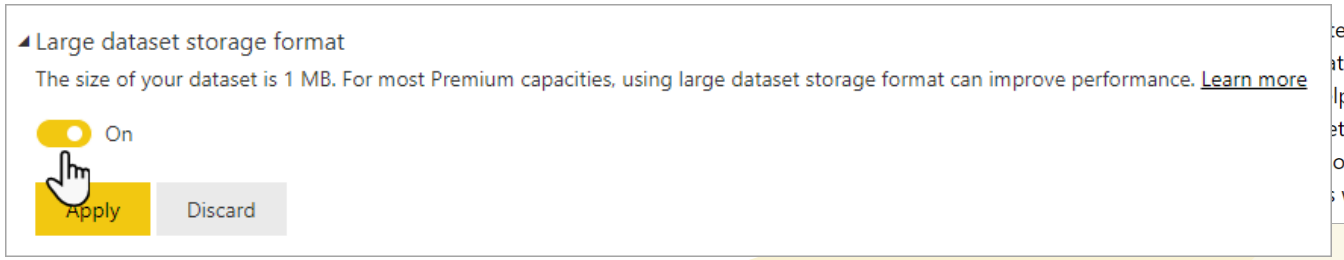
Large Model Support GA

Now with UI (previously only with PowerShell)

Premium Files vs Standard Abf

Important for bigger developments (> 10GB datasets)





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Announcing large model support in Power BI Premium General Availability (GA)

Kay Unkroth
Senior Program Manager

December 7, 2020

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About a year ago, we announced Power BI Premium support for large models in public preview. Today, we are excited to announce General Availability (GA), along with additional new features.

With large model support, a dataset in Power BI Premium is limited in size only by the Premium capacity that hosts the dataset. Excluding memory for query execution and processing, this typically means a dataset can grow up to 70-80% of the capacity's total memory. Together with incremental refresh, this unlocks interactive analysis over very large datasets with minimal management overhead.

Large model support is one of the cornerstones to unblock customers looking for options to lower enterprise BI infrastructure complexity and total cost of ownership (TCO). Another is XMLA endpoints. Among other things, these critical capabilities open the door to consolidate tabular models from SQL Server Analysis Services and Azure Analysis Services on one common platform based on Power BI Premium. As already mentioned, this helps to reduce management overhead. Perhaps even more importantly, Power BI increases the discoverability of your enterprise BI solutions through such features as shared and certified datasets, which make it easy for you to promote trusted and authoritative datasets in your organization.

...e operations, make sure you
...t you wouldn't necessarily
...lps to boost XMLA write
...et in the dataset settings when
...o a good idea to make the large
...s where you store your datasets.

Service Principals + Async Admin APIs

No longer requires an Admin Service account for metadata Scans

Very useful for monitoring

Know about of the new Scan Async APIs

- workspaces/modified
- workspaces/getInfo (lineage + datasourcedetails)
- workspaces/scanStatus/{scan_id}
- workspaces/scanResult/{scan_id}

I'll be presenting about these new Async APIs on Feb 19th at Global Power Platform Bootcamp Milano and Global Power Platform Bootcamp Paris

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Announcing new Admin APIs and Service Principal authentication to make for better tenant metadata scanning

Yaron Canari
Power BI Product Manager

December 10, 2020

Share Tweet Like

Power BI enables organizations to adopt a data-driven culture where every person can get value from data. With the massive amounts of self-service data generated in Power BI, our Power BI customers tell us about a number of emerging challenges:

- How to allow self-service but still govern data efficiently
- How to help users discover the right data to use
- How to reduce data duplication

We're excited to announce that with this release we've made it easier for you to get the information you need from Power BI to help you to address and overcome these challenges.

We now release **new Power BI Admin APIs**, along with a **.NET SDK**, that enable administrators to create their own custom-made solutions based on Power BI metadata and lineage. The idea for this new functionality was born out of thinking about how to improve the efficiency and performance of the Power BI scan so that it could support large numbers of data assets while still conforming to the security practices of organizations.

Service Principal authentication for read-only scanner Admin APIs

Small Multiples

Massive productivity & performance boost!

Still in preview, missing:

Only desktop **(although its possible to publish)**

Formatting limitations

Sort by measure

Only show multiples with data

Announcing Small Multiples (preview)

Rien Hu

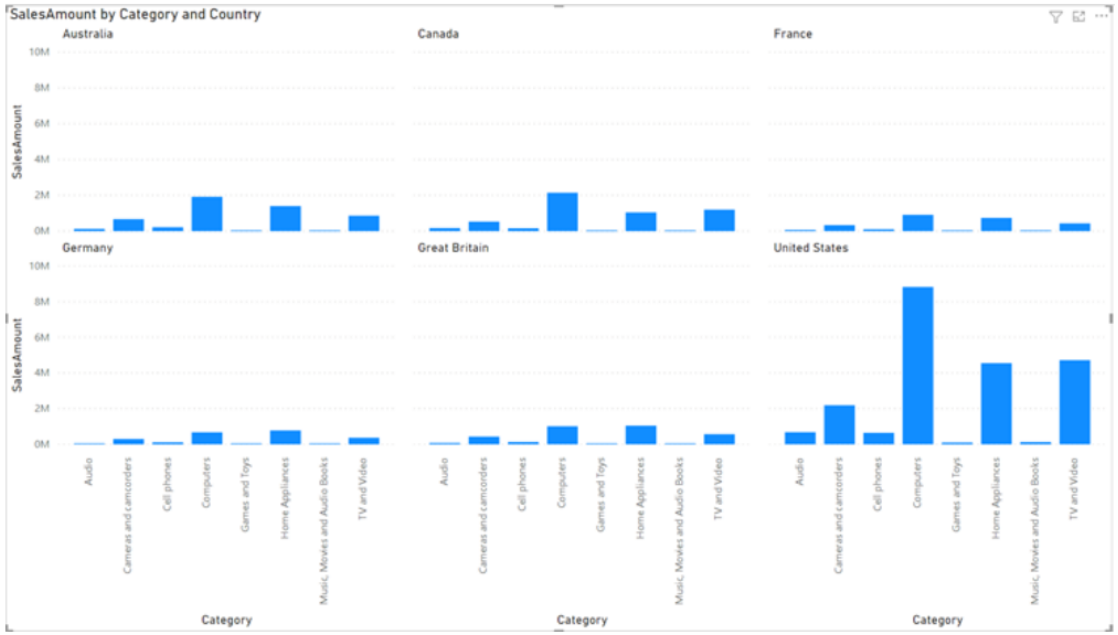
December 16, 2020

Share Tweet Like

Hi all,

This month, we're releasing a preview version of the small multiples feature! We've been working very hard to implement this feature and make sure that it plays nicely with other core Power BI features, addresses your use cases, and enables the same high level of interactivity with your data that you can expect from a core visual feature.

Small multiples, or trellising, splits a visual into multiple versions of itself, presented side-by-side, with its data partitioned across these versions by a chosen dimension (e.g., splitting a "sales by category" column chart across product lines or country).



DirectQuery to PBI DataSets

One of the most waited features for MSFT BI Practitioners

Open a new world of possibilities

Still some limitations:

- No RLS on remote tables
- Sort By Column not supported
- Performance issues
- Chaining limitations to three levels

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DirectQuery for Power BI datasets and Azure Analysis Services (preview)

Jeroen ter Heerdt
Program Manager

December 16, 2020

Share Tweet Like

In Nov 2018, we released composite models, which allow you to seamlessly add multiple DirectQu
you wou
and Azu

Marco Russo @marcorus · Dec 17, 2020

The business intelligence world dreamed of its holy grail for 20 years.

#powerbi started the preview of composite models made by multiple
mantic models and imported data.

is is a historic milestone.
ticle by @marcorus / video by @ferrarialberto.

lbi.com/articles/new-c...

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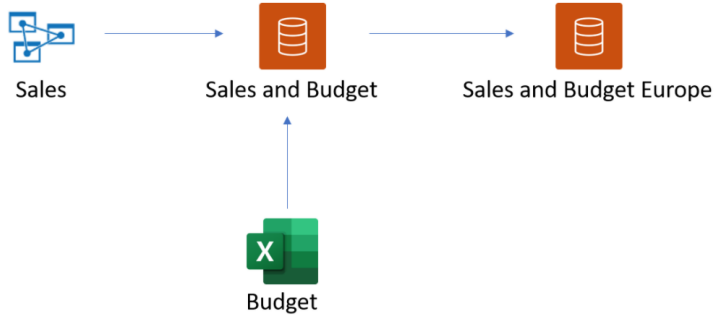
Chaining

With this feature, you can publish a report and a dataset that is based on other Power BI datasets, which was previously not possible. Together, datasets and the datasets and models they are based on form a chain.

For example, imagine your colleague publishes a Power BI dataset called **Sales and Budget** that is based on an Azure Analysis Services model called **Sales**, and combines it with an Excel sheet called **Budget**.

When you publish a new report (and dataset) called **Sales and Budget Europe** that is based on the **Sales and Budget** Power BI dataset published by your colleague, making some further modifications or extensions, you are effectively adding a report and dataset to a chain of length three, which started with the **Sales** Azure Analysis Services model and ends with your "**Sales and Budget Europe** Power BI dataset. See the image below:

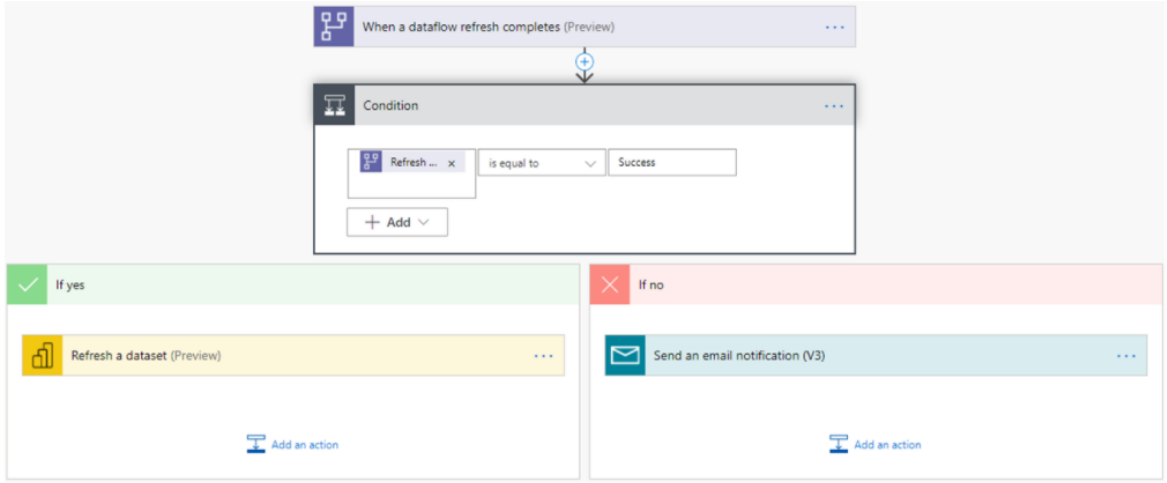


DataFlow Power Automate Connector

Very useful to chain DataFlow & DataSet refreshes

Trigger dataflows and Power BI datasets sequentially

Both a Power BI Dataset and Dataflows can get data prepped by another dataflow, leveraging that dataflow as a data source. One reason for refreshing multiple dataflow sequentially is explained in our documentation about separating complex dataflows into multiple dataflows. When the Dataflow that acts like a data source completes its run successfully, a downstream, or dependent Dataset and/or Dataflow should be refreshed ASAP to reduce time from when Data is available to when it can be used or further processed. When a dataflow fails, the dependent dataset or dataflow does not need to be refreshed, to conserve resources and also be ready to be refreshed as soon as the upstream dataflow is fixed and its refresh is successful.



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Announcing Dataflows Power Automate Connector public preview

Ben Sack
Program Manager

December 16, 2020

Share Tweet Like

Dataflows are a self-service, cloud-based, data preparation technology available in Power Apps, Power BI and Dynamics Customer Insights products and portals.

Dataflows keep your data up to date, so it can be leveraged by Power Apps applications, Power BI reports and Dashboards, Dynamics Customer Insights and many more products and solutions that leverage Data stored in Dataverse or Azure Data Lake Storage Gen2 accounts. There are many use cases for dataflows and you can learn more about how dataflows could be leveraged in your scenarios requiring data preparation in our documentation.

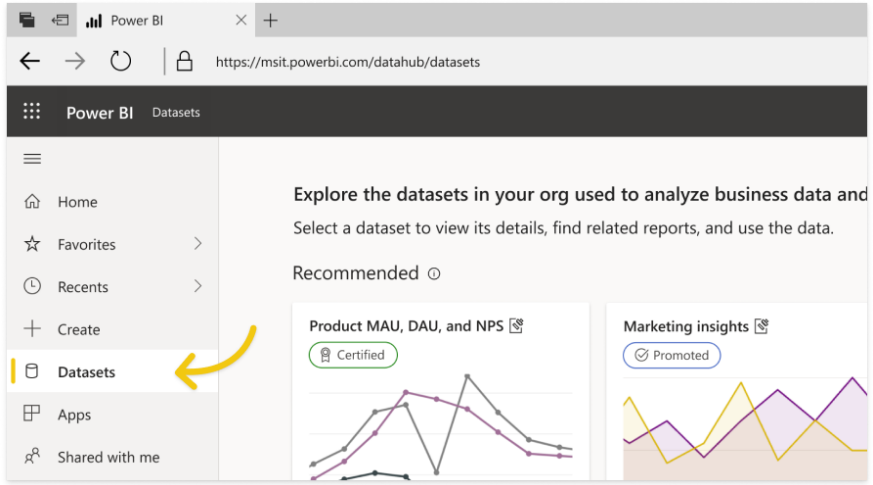
A top ask from our community members was to Integrate Dataflows with Power Automate. The most common asks were to trigger a when a dataflow run has completed, and to initiate a dataflow run when different events occur, for example, when new data is available in one of the Dataflow sources.

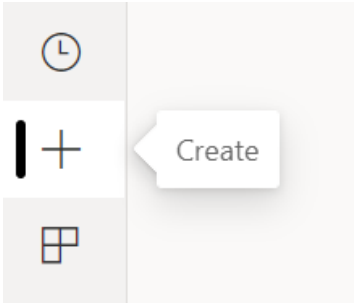
Today, we're excited to announce the Preview availability of the Power Automate Dataflow connector along with templates and sample scenarios you can get started with right away. The new connector provides a new way to react to dataflow events to take action on dataflows. Combined with other Power Platform Products connectors and the 400+ connectors available in Power Automate the possibilities are endless.

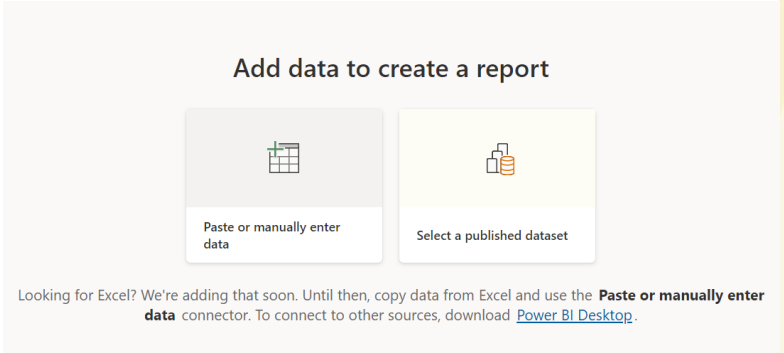
New Dataflow connector templates and samples

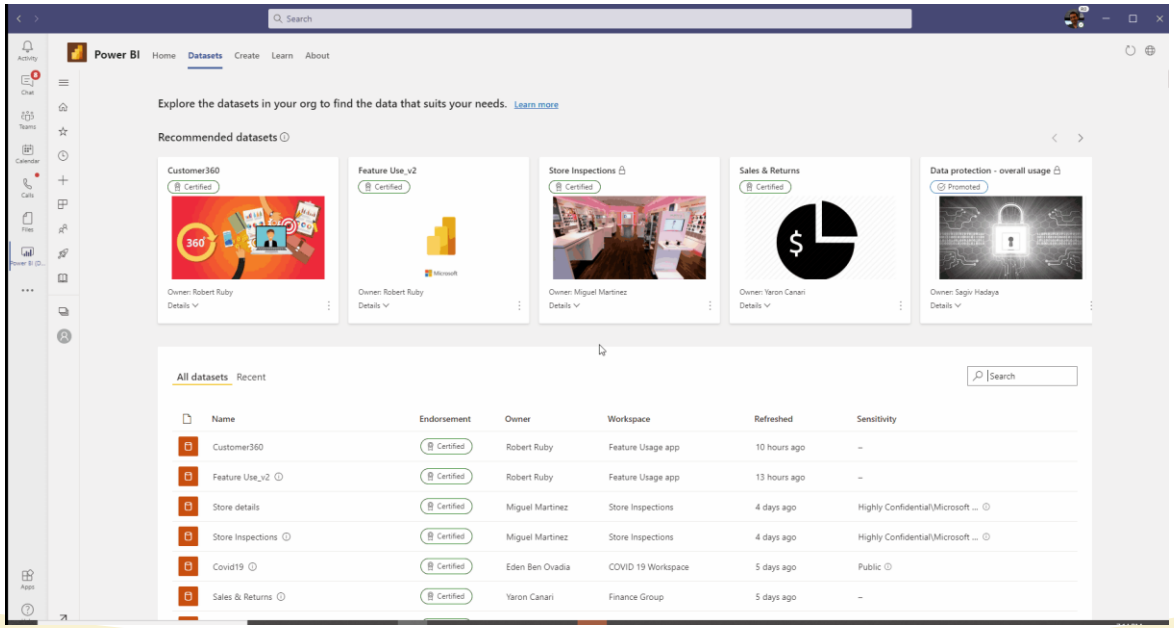
There are several patterns we wanted to help address with the new connector. Below are just a few of the templates and sample scenarios documentation now available with the new Power Automate Dataflow connector:

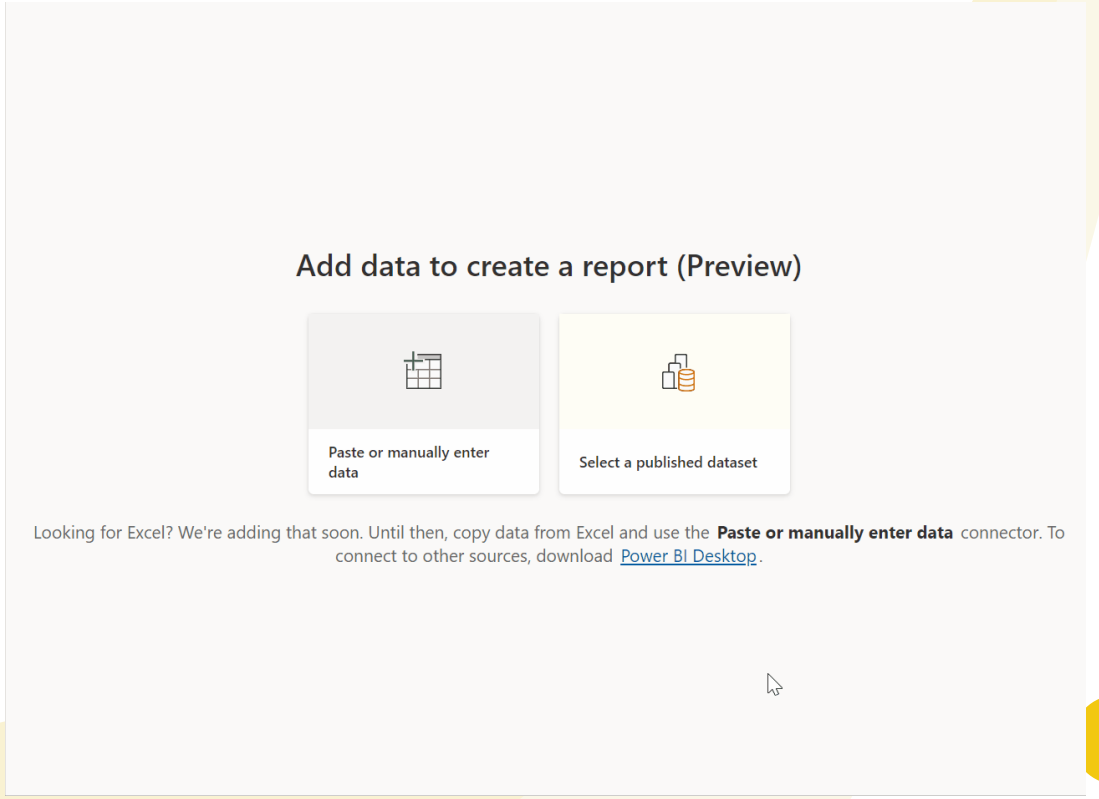
Datasets Hub & Quickly create reports











Azure PBI Embedded Gen 2 (preview)

Not Possible to Upgrade ☹

Main benefits:

- Better performance
- No limits on refresh concurrency
- Refresh separated from queries
- Paginated Reports on A1
- Instant Scale and no Downtime on upgrade

Announcing Power BI Embedded Generation 2 (preview)

Alon Baram
Senior Product Manager, Power BI Embedded

February 7, 2021

Power BI Premium Generation 2 (preview) was announced few months ago and offered substantial improvements in performance and scale to Premium subscribers. Today we are thrilled to announce that the 2nd generation of Power BI Embedded, referred to as Embedded Gen 2, is also available for its Azure subscribers to use during the preview period.

All of the Power BI Embedded Gen 1 capabilities such as pausing and resuming the capacity, are preserved in Gen 2 and the price per SKU remains the same, however the Gen 2 capacity resource provides the following updates and improved experience:

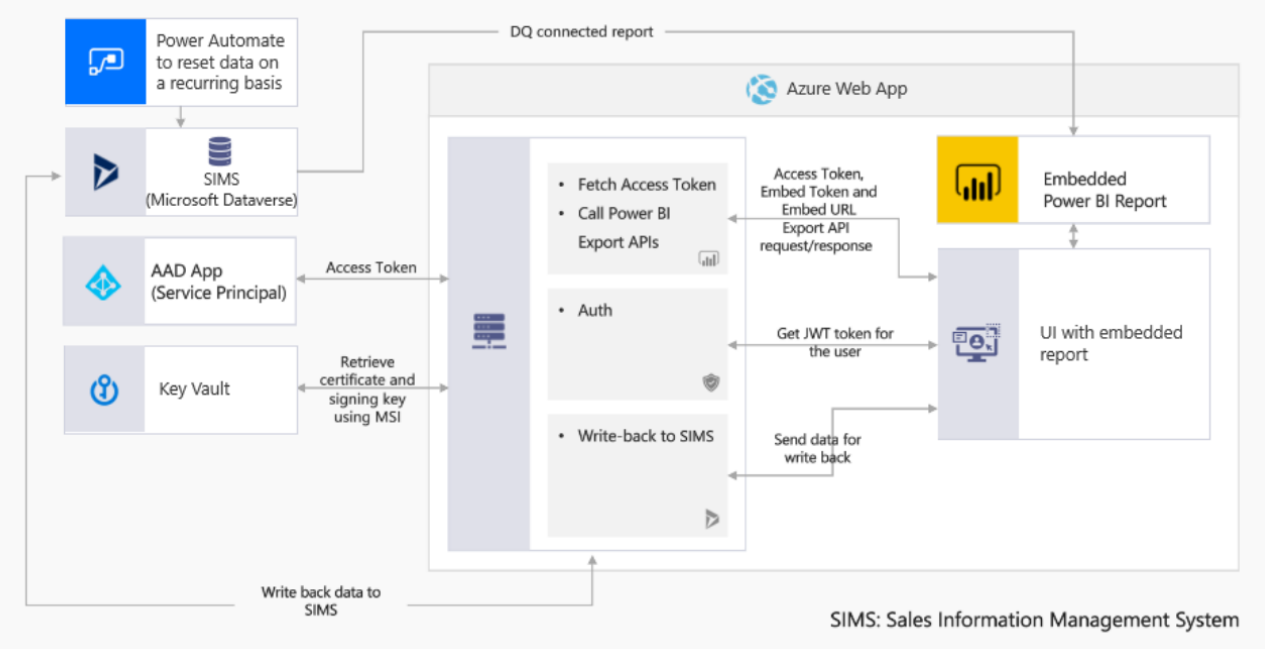
- **Enhanced performance**– Better performance on any capacity size, anytime. Operations will always perform at top speed and won't slow down when the load on the capacity approaches the capacity limits.
- **Greater scale** – No limits on refresh concurrency, fewer memory restrictions and complete separation between report interaction and scheduled refreshes
- **Lower entry level for paginated reports and AI workloads** – Customers can start with an A1 SKU and grow as they need.
- **Scaling a resource instantly –** From scaling a Gen 1 resource in minutes, to scaling a Gen 2 resource in seconds.
- **Scaling without downtime –** Customers can scale an Embedded Gen 2 resource without experiencing any downtime.
- **Improved metrics –** Coming in a few weeks to simplify monitoring and metrics-based automation. Instead of various Gen 1 metrics, there will be one CPU utilization metric in Gen 2. In addition, a built-in reporting tool will allow customers to perform utilization analysis, budget planning and chargebacks.

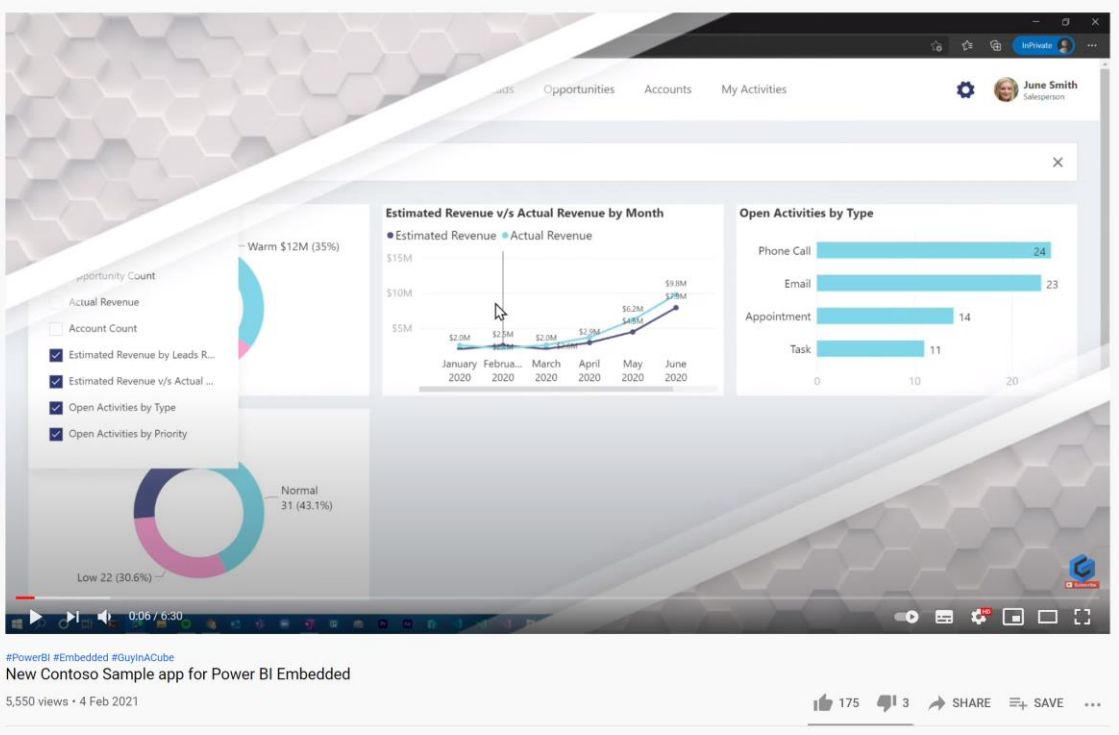
New Contoso Power BI Embedded Sample

Very powerful end-to-end PBI Embedded Demo

https://github.com/microsoft/Power-BI-Embedded-Contoso-Sales-Demo

Architecture





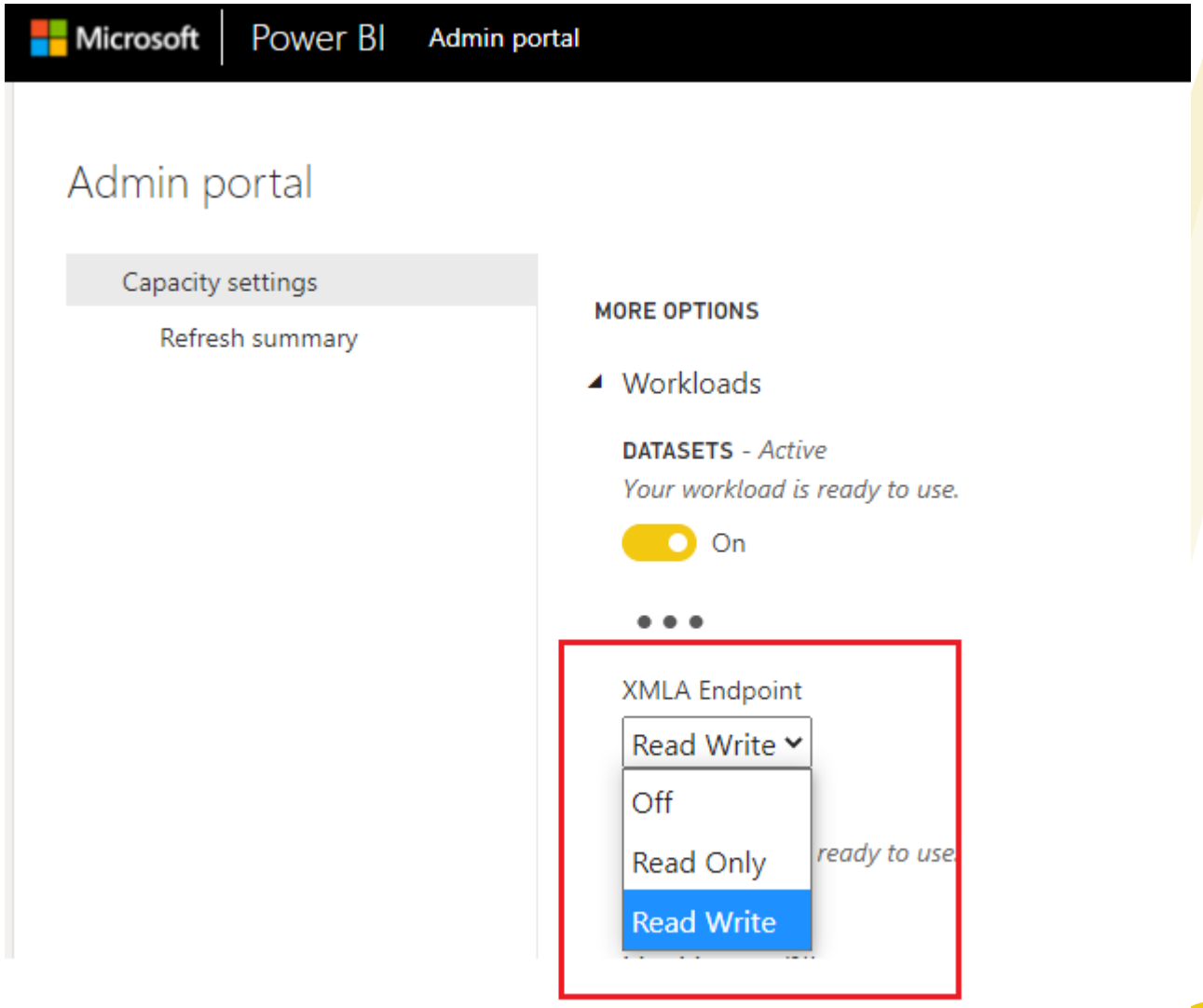
(4) New Contoso Sample app for Power BI Embedded - YouTube

XMLA Read/Write General Availability

Read/write XMLA endpoints introduced many additional enterprise BI scenarios for dataset management, application lifecycle management, governance, complex semantic modeling, debugging, and monitoring— all within Power BI!

Now its possible to:

- **Manage RLS Roles**
- **Service Principal Support (not query)**



Best practice rules by PBI Team

Available for a long time, now sponsored by Microsoft:

https://github.com/microsoft/Analysis-Services/tree/master/BestPracticeRules

DAX Expressions

- Use the DIVIDE function for division
- Avoid using the IFERROR function
- Column references should be fully qualified
- Measure references should be unqualified
- Measures should not be direct references of other measures
- No two measures should have the same definition
- Use the TREATAS function instead of INTERSECT for virtual relationships

Error Prevention

- Data columns must have a source column
- Calculated columns must have an expression

Formatting

- Add data category for columns
- Do not summarize numeric columns

Best practice rules to improve your model's performance

Michael Kovalsky
Senior Program Manager

February 3, 2021

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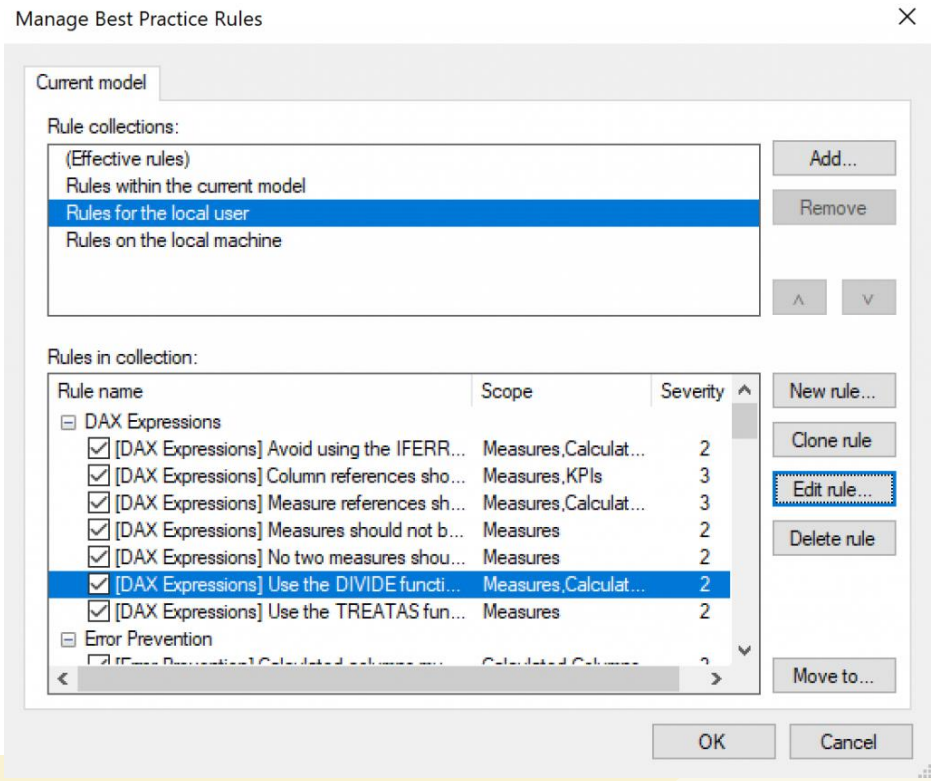
There are a plethora of articles, blog posts, and videos which share recommendations for best practices for Power BI and tabular modeling. It is of course essential to read these in order to



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Thank You!