

# Power BI Report Server (PBIRS)

**Wolfgang Strasser**

wolfgang@powerofbi.at

@wstrasser

<http://workingondata.wordpress.com/passcamp2017>

*Update: 2017-12-05*



# About me — Wolfgang Strasser



Consultant

Software, Business Intelligence and DWH



SQL Server, SSIS, Power BI, ...

SQL Pass Austria

SQLSaturday Vienna Organizer



Save The Date: 2018-01-19!  
It's actually a Friday!





@wstrasser





[wolfgang@powerofbi.at](mailto:wolfgang@powerofbi.at)

[workingondata.wordpress.com](http://workingondata.wordpress.com)

# Microsoft Reporting Roadmap

TN Microsoft Business Intelli x

← → ↻ <https://blogs.technet.microsoft.com/dataplatforminsider/2015/10/29/microsoft-business-intelligence-our-reporting-roadmap/>  

 Apps  Submit MVP Activity  Addons 

Server & Tools Blogs > Data Platform Blogs > SQL Server Blog Sign in




Data Development | Data Quality Services | OLTP | Integration Services | Data Security & Storage | Data in the Cloud | Cortana Intelligence and Machine Learning

# SQL Server Blog

Official News from Microsoft's Information Platform

## Microsoft Business Intelligence – our reporting roadmap

October 29, 2015 by [SQL Server Team](#) // [31 Comments](#) ★★★★★






 0  25  313

For eight consecutive years, Microsoft has been positioned as a Leader in the [Gartner Magic Quadrant for Business Intelligence and Analytics Platforms](#). And while each year has seen advances across our product line, this past year's progress is truly unprecedented. We firmly believe Microsoft now offers the industry's most complete and modern business intelligence product family – with unmatched breadth and depth.


At first approach, this depth can be overwhelming – how do all the components fit together? Where are things heading in the future? These are frequent questions from our customers and partners.

As we approach the release of [SQL Server 2016](#) it's a great time to tackle those questions in a definitive blog.

**Share This Post**

**Search**



Search this blog  Search all blogs

**Archives**

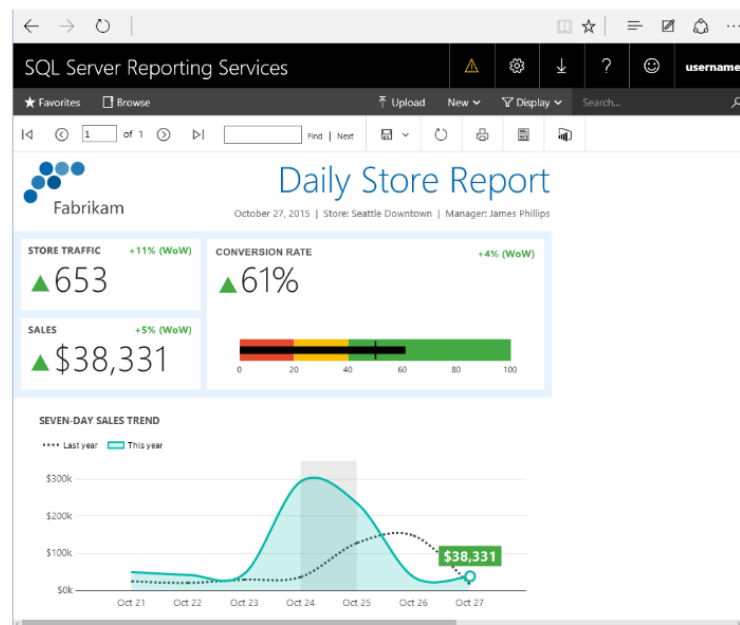
[August 2016 \(3\)](#)  
[July 2016 \(7\)](#)

<https://blogs.technet.microsoft.com/dataplatforminsider/2015/10/29/microsoft-business-intelligence-our-reporting-roadmap/>

# Harmonizing report types

We intend to standardize reporting content types across Microsoft on-premises, cloud and hybrid systems. Our reporting path forward focuses on four report types:

- **Paginated reports** built with SQL Server Report Builder or SQL Server Data Tools. Paginated reports allow for exact placement of elements on a page and are capable of complex display logic for creating printed reports or online operational reports. Paginated/operational reports have been a popular, invaluable foundation for day-to-day reporting and analytics for over a decade. These reports will continue to be a standard report type.
- **Interactive reports** built with [Power BI Desktop](#). Power BI Desktop is a contemporary visual data discovery application and the next generation of our Power View technology. It generates HTML5-based reports, ensuring compatibility across all modern browsers.
- **Mobile reports** are based on [Datazen technology](#). We believe dedicated reports optimized for mobile devices and form factors provide an optimal experience for users accessing BI reports on mobile devices. By specifically designing reports for different mobile form factors, we deliver on our promise and enable users to get business insights, any way, anywhere and from any device.
- **Analytical reports and charts** created with Excel. Excel is the most widely used analytical tool today and it will continue to be an important report type, critical to our solution on-premises and in the cloud.

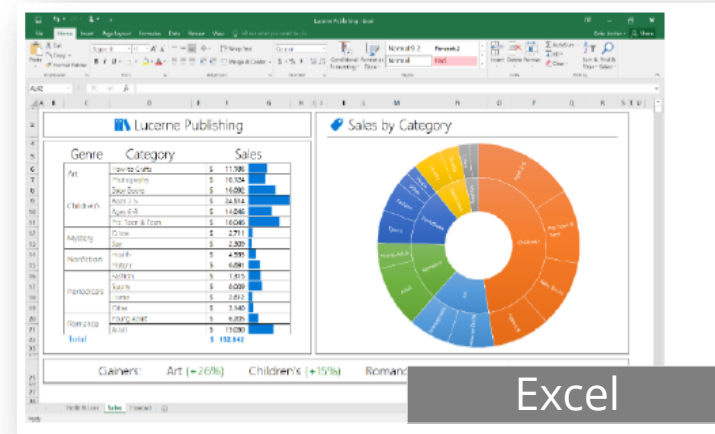


# Types of Reports

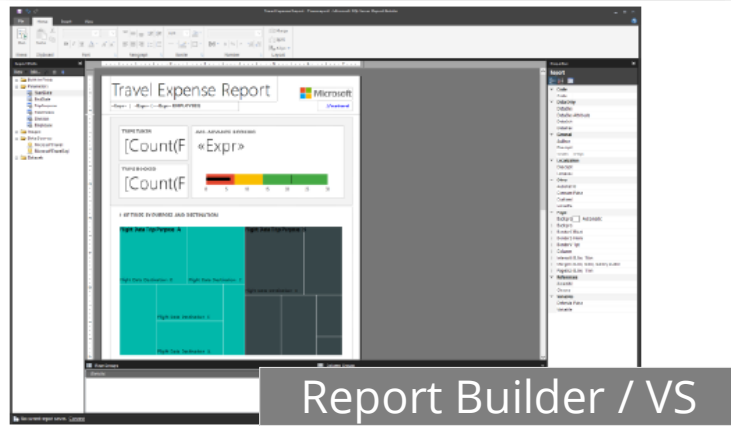
## Interactive Reports



## Spreadsheet



## Paginated Reports

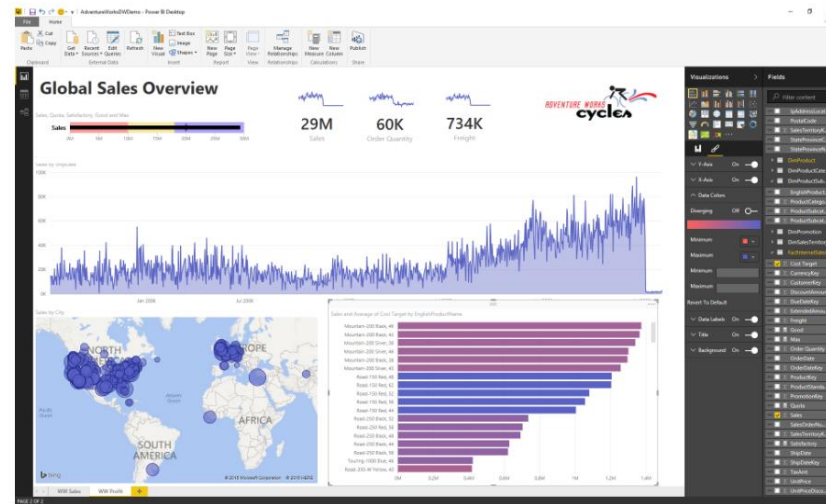


## Mobile Reports



# Publish Power BI Desktop Reports on-premises

Power BI Desktop is a data discovery and interactive reporting tool allowing business analysts to connect, prepare, and visually explore data across a freeform canvas. It combines the strengths of Power Query to connect to a vast spectrum of data sources and easily shape data, Power Pivot for rich data blending and modeling, and next generation Power View to intuitively perform visual analytics and author compelling reports.



Based on the same technology as Power View, Power BI Desktop supports existing Power View reports and provides the future path to a HTML5 based interactive report experience on-premises.

Just as we've added mobile report delivery to SSRS in SQL Server 2016, we intend to add governed Power BI Desktop report delivery in the future. Today Power BI Desktop supports publishing of reports to Power BI; Power BI Desktop is free to use, [experience it yourself today](#).

2,568

votes

Vote

## PowerBI reports and dashboard on-premise hosting

As per available documentation, power bi reports and dashboards will be published to microsoft cloud. It is very awesome approach as it saves all overhead of maintaining infrastructure. But there are case where on-premise hosting is required, Can we configure on-premise server to host power bi reports just like SSRS reports?

 sandeep yadav shared this idea · May 14, 2015 · [Flag idea as inappropriate...](#)



ADMIN

**COMPLETED** · Riccardo Muti (Admin, Microsoft Power BI) responded · June 21, 2017

Hi everyone,

With Power BI Report Server now generally available (<https://powerbi.microsoft.com/report-server/>), we're marking this idea completed. I want to take this opportunity to thank each and every one of you for participating in this community over the past few months and taking time out of your busy days to try the previews and share your feedback; I can't overemphasize how much we appreciate it and how much it contributes to the product.

In case you missed it, check out our recent blog post, "A closer look at Power BI Report Server" (<https://blogs.msdn.microsoft.com/sqlrsteamblog/2017/05/17/a-closer-look-at-power-bi-report-server/>).

While the June 2017 release supports Power BI reports that connect "live" to Analysis Services, we're hard at work on integrating the Power Query/M-language and Analysis Services/DAX engines to unlock direct connectivity to the other Power BI Desktop data sources, targeted for later this (calendar) year.

We've now created a "Report Server" category for your ideas. Have an idea for a feature you'd like to see in a future release of Power BI Report Server? Submit it here: <https://ideas.powerbi.com/forums/265200-power-bi-ideas/category/207604-report-server>.

Thanks!



**Power BI**

**Report Server (PBIRS)**

# Introducing Power BI Report Server (PBIRS)

## SQL Server Reporting Services Team Blog

A blog from the SQL Server Reporting Services product team at Microsoft.

### Tag: Power BI Report Server

#### Power BI Report Server now generally available

June 12, 2017 by [Riccardo Muti](#) // [22 Comments](#)



Today during the Microsoft Data Insights Summit, James Phillips, corporate vice president of Microsoft's Business Applications, Platform, and Intelligence (BAPI) organization, announced the general availability of Power BI Premium and Power BI Report Server. Download Power BI Report Server With Power BI Desktop and Power BI Report Server, you can Create beautiful, interactive reports using... [Read more](#)

Tags: Power BI Report Server

#### A closer look at Power BI Report Server

May 17, 2017 by [Riccardo Muti](#) // [15 Comments](#)



On May 3, Microsoft announced Power BI Premium, a capacity-based licensing model that increases flexibility for how users access, share and distribute content. The new offering also introduces the ability to manage Power BI reports on-premises with the included Power BI Report Server. Today, we're excited to make available a preview of Power BI Report... [Read more](#)

Tags: Power BI Report Server

#### Introducing Power BI Report Server for on-premises Power BI report publishing

May 3, 2017 by [SQL Server Reporting Services](#) // [68 Comments](#)

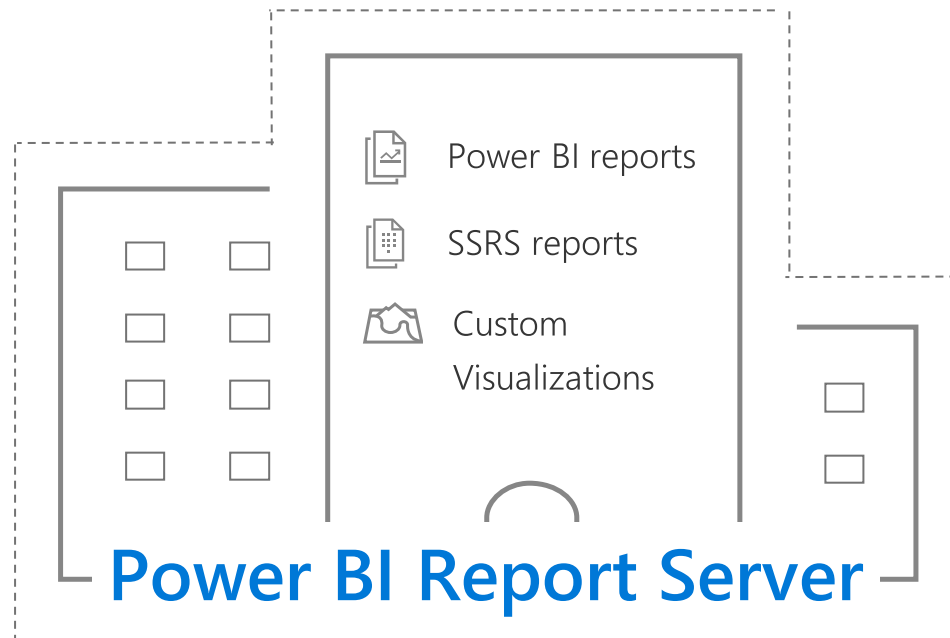


Today Microsoft announced Power BI Premium – a capacity-based licensing model that increases flexibility for how users access, share and distribute content in Power BI. The new offering also introduces the ability to manage Power BI reports on-premises with the included Power BI Report Server. Power BI Report Server delivers the capabilities we made available... [Read more](#)

Tags: Power BI Report Server

<https://blogs.msdn.microsoft.com/sqlrsteamblog/tag/power-bi-report-server/>

# What is it? Power BI Report Server (PBIRS)



Keep Power BI reports on-premises

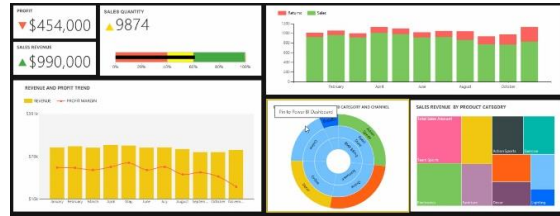


Includes all SSRS functionality



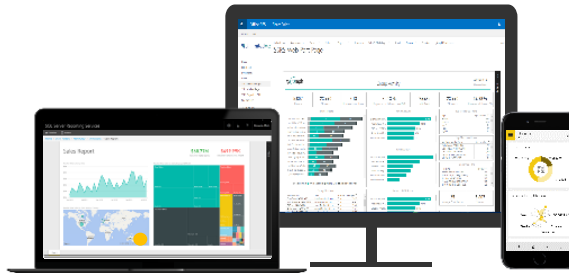
Move to the cloud on your terms

# Includes all SSRS functionality



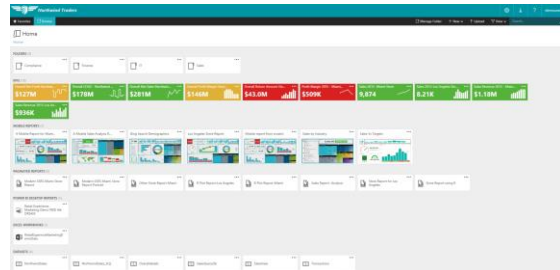
Publish SSRS reports

Create precisely-formatted paginated reports



Consume in multiple ways

Web browser, mobile app, or embedded into your app



Benefit from an enterprise-ready solution

Organize reports, manage permissions, audit usage

Everything gets faster..

# Faster cadence

## June 2017 – Power BI Report Server (PBIRS) GA

Analysis Services models (Live connection)

No import models

NO other sources

## August 2017 – Preview

Excel workbook viewing

Embedded Datasets

## October 2017 – PBIRS Release

Import Data models

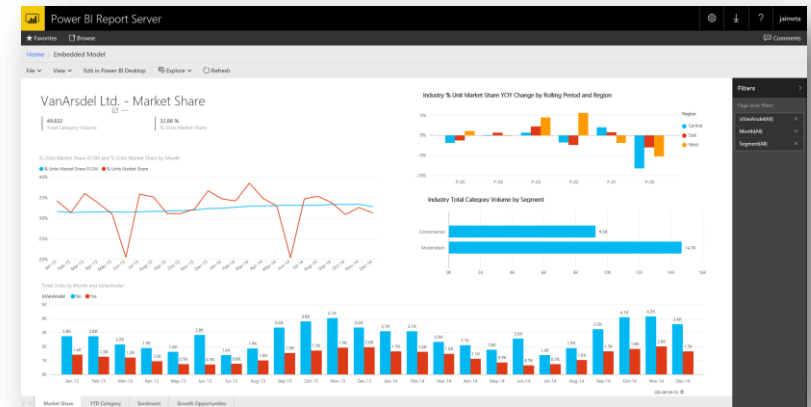
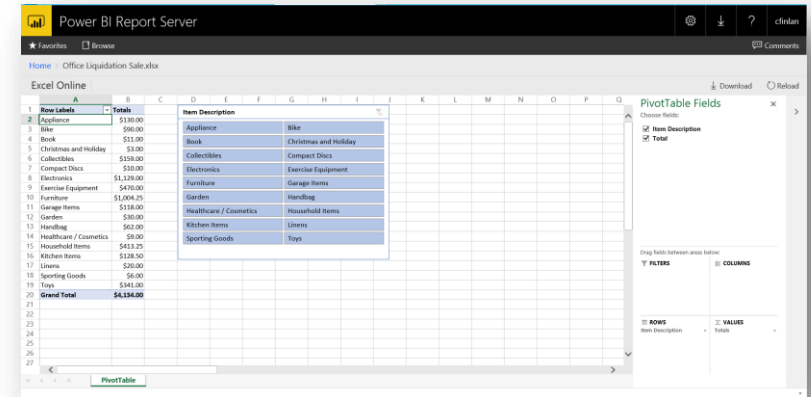
(virtually) any Data source

Scheduled Refresh

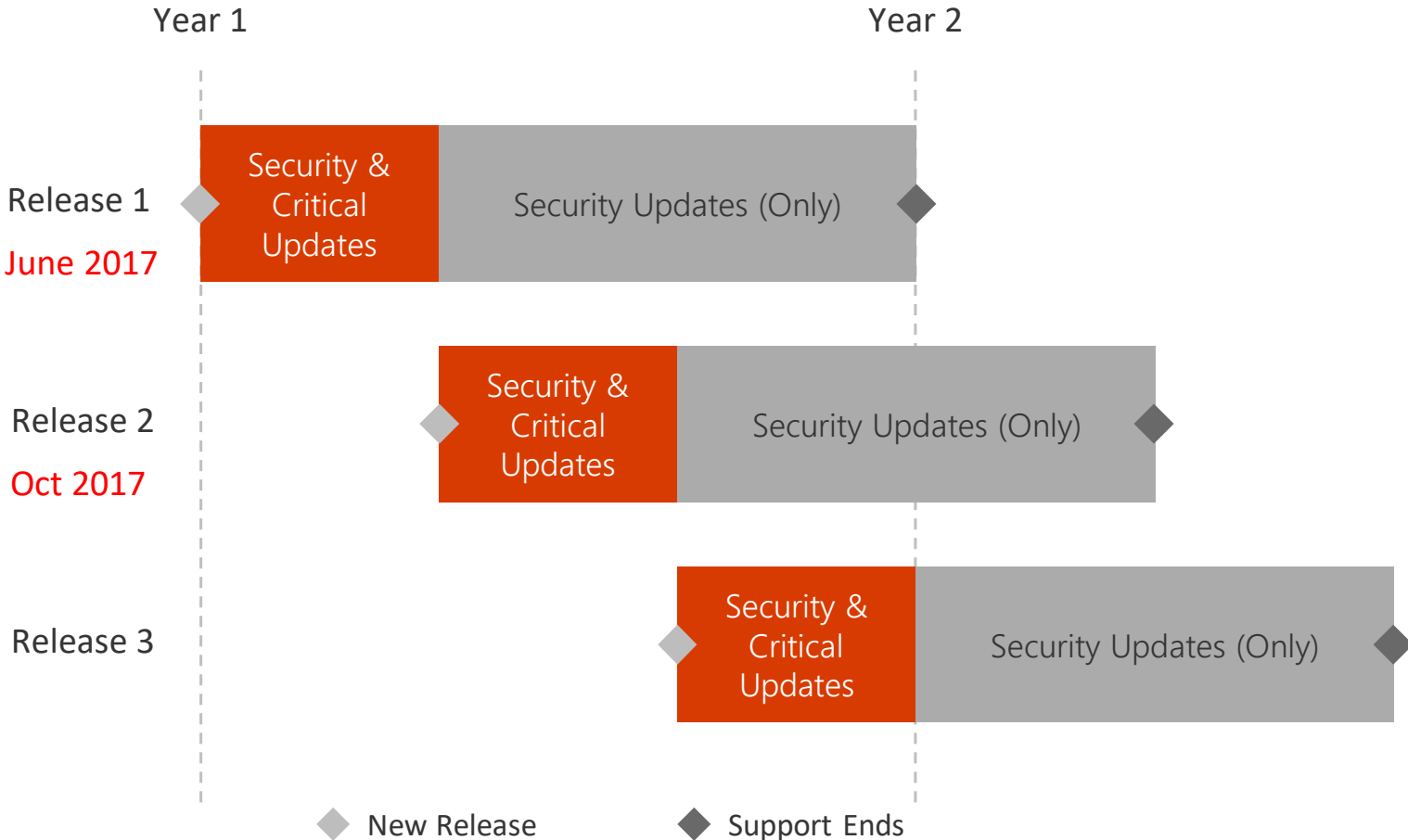
Direct Query

Public REST API

SharePoint Webpart (RDL reports)



# Modern Lifecycle Policy



Frequent releases  
(planning ~3/4 per year)

Security & critical updates  
until next release

Security updates continue for  
remainder of 12 months

What do you need..  
..to install? ..to develop?

- Power BI Report Server (PBIRS)
  - Power BI Desktop optimized for PBIRS
  - And that's it..
- 
- Develop your PBI Reports in PBI Desktop
  - Publish it to PBIRS
  - Configure scheduled refresh (if needed)
  - Set permissions for reports



# Compare reporting options

SQL Server Reporting Service 

Power BI Report Service 

Power Service 

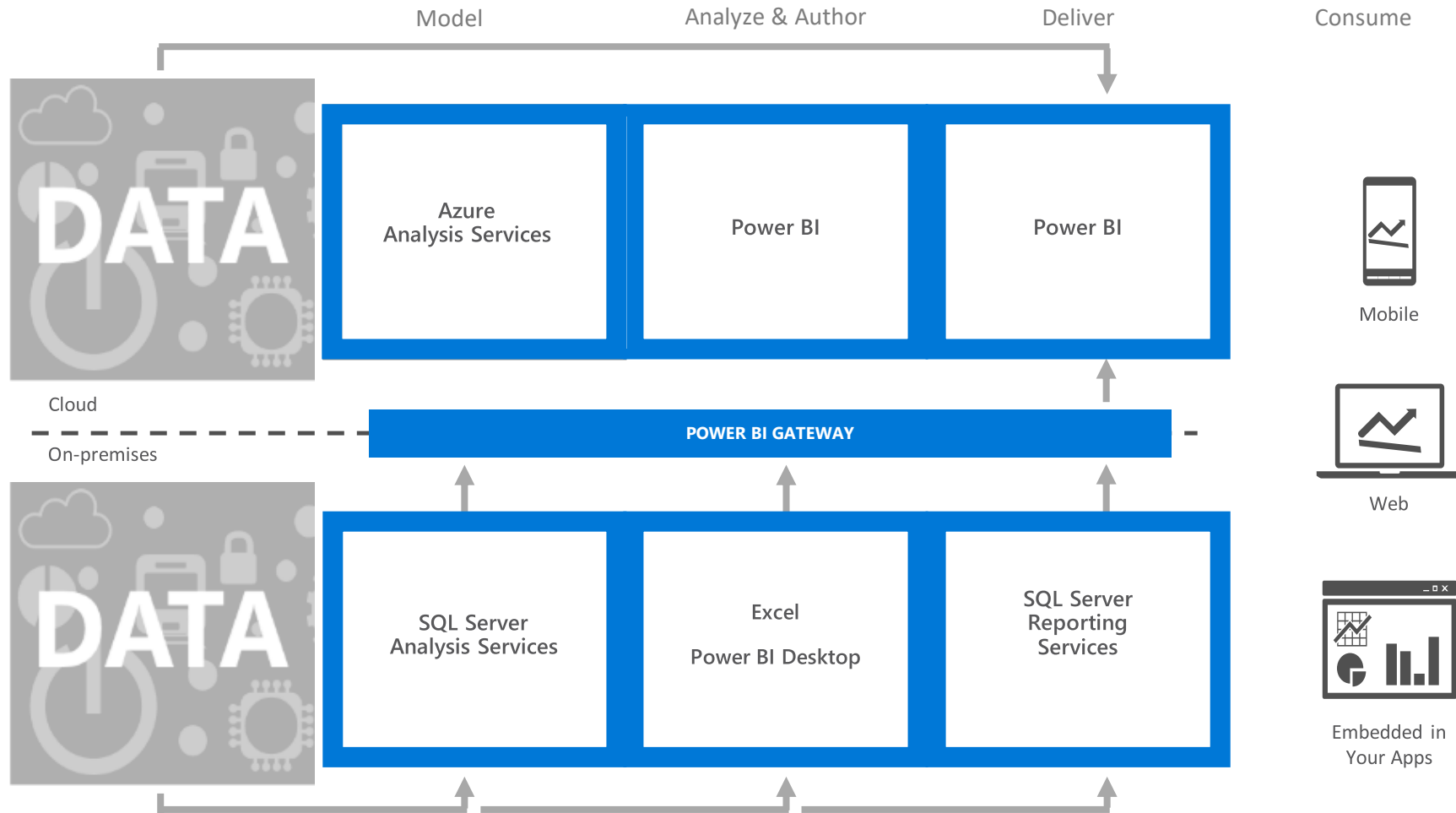


	SQL Server Reporting Service	Power BI Report Service	Power Service
Deployment	On-premises	On-premises	Cloud
Power BI reports		✓	✓
Real-time Power BI Dashboards			✓
Content packs			✓
Q&A			✓
Quick Insight			✓
Built-in embedded analytics services		✓	✓
Paginated reports	✓	✓	
Mobile BI	✓	✓	✓
Lifecycle	Fixed Lifecycle Policy	Modern Lifecycle Policy	Fully Managed Service

# Which tool for what?

	Paginated Reports	Interactive Reports (Power BI)	Mobile Reports	Excel
Standard Reports / Lists	✓			✓
Pixel Perfect Reports	✓			✓
Self-Service BI		✓		✓
Mobile Reports		✓	✓	
Export in Excel / PowerPoint	✓	✓		✓

# Cloud and On-Premises Parity



What do you need..  
..to install? ..to develop?

- Power BI Report Server (PBIRS)
  - Power BI Desktop optimized for PBIRS
  - And that's it..
- 
- Develop your PBI Reports in PBI Desktop
  - Publish it to PBIRS
  - Configure scheduled refresh (if needed)
  - Set permissions for reports

# PBIRS REST API

## REST API

This release cycle, we wanted to invest in updating our developer story, and we're excited to introduce a [new, modern REST API](#) for Reporting Services. Think of it as a RESTful successor to the legacy [ReportingService2010](#) SOAP API.

<https://app.swaggerhub.com/apis/microsoft-rs/PBIRS/2.0>

<https://docs.microsoft.com/en-us/sql/reporting-services/developer/rest-api>

Extensions	>
FavoriteItems	>
Folders	>
Kpis	>
LinkedReports	>
Me	>
MobileReports	>
PowerBIReports	∨
GET	/PowerBIReports Gets an array of PowerBIReport CatalogItems.
POST	/PowerBIReports Creates a new PowerBIReport CatalogItem.
GET	/PowerBIReports({Id}) Gets a PowerBIReport CatalogItem specified by the Id.
PATCH	/PowerBIReports({Id}) Updates the specified PowerBIReport CatalogItem using the provided definition.
DELETE	/PowerBIReports({Id}) Deletes the specified PowerBIReport.

# Licensing

# What do you need? Licensing...

Power BI Premium



SQL Server Enterprise  
+ Software Assurance



**Power BI Pro** license required to publish Power BI reports to Power BI Report Server

# Power BI PREMIUM



## Author

Power BI Desktop

Free

[DOWNLOAD FREE >](#)

---

Connect to hundreds of **data sources**

Clean and prepare data using visual tools

Analyze and build stunning reports with custom visualizations

Publish to the Power BI service

Embed in public websites

[LEARN MORE >](#)

## Share and collaborate

Power BI Pro

€8.40

per user  
per month

[TRY FREE >](#)

---

Build dashboards that deliver a 360-degree, real-time view of the business

Keep data up-to-date automatically, including on-premises sources

Collaborate on shared data

Audit and govern how data is accessed and used

Package content and distribute to users with apps

[LEARN MORE >](#)

## Scale large deployments

Power BI Premium

Capacity pricing

per node  
per month

[PLAN YOUR COSTS >](#)

---

Gain dedicated capacity you allocate, scale, and control

Distribute and **embed content** without purchasing per-user licenses

Publish reports on-premises with Power BI Report Server

Unlock more capacity and higher limits for your Pro users

*Licensing information for Power BI Report Server and for embedding analytics with Power BI Premium.*

[LEARN MORE >](#)

## Free vs Pro comparison

Here is a list of features supported by user type.

	Free	Pro
<b>Connect to 70+ data sources</b>	✓	✓
<b>Publish to Web</b>	✓	✓
<b>Peer-to-peer sharing</b>	✗	✓
<b>Export to PowerPoint, Excel, CSV</b>	✓	✓
<b>Enterprise distribution</b>		
Apps	✗	✓
Email subscriptions	✗	✓
Embed APIs and controls	✗	✓
<b>Collaboration</b>		
App workspaces	✗	✓
Analyze in Excel, analyze in Power BI Desktop	✗	✓

# Power BI Portfolio

## Power BI Desktop

---

Licensed by user

---

**Free** report authoring and ad-hoc data exploration

## Power BI Free

---

Licensed by user

---

Quick, easy-to-use self-service analytics for **personal use**

## Power BI Pro

---

Licensed by user

---

Quick, easy-to-use **self-service** analytics for users requiring **collaboration**, dashboard sharing, ad hoc analysis, and report publishing

## Power BI Premium

---

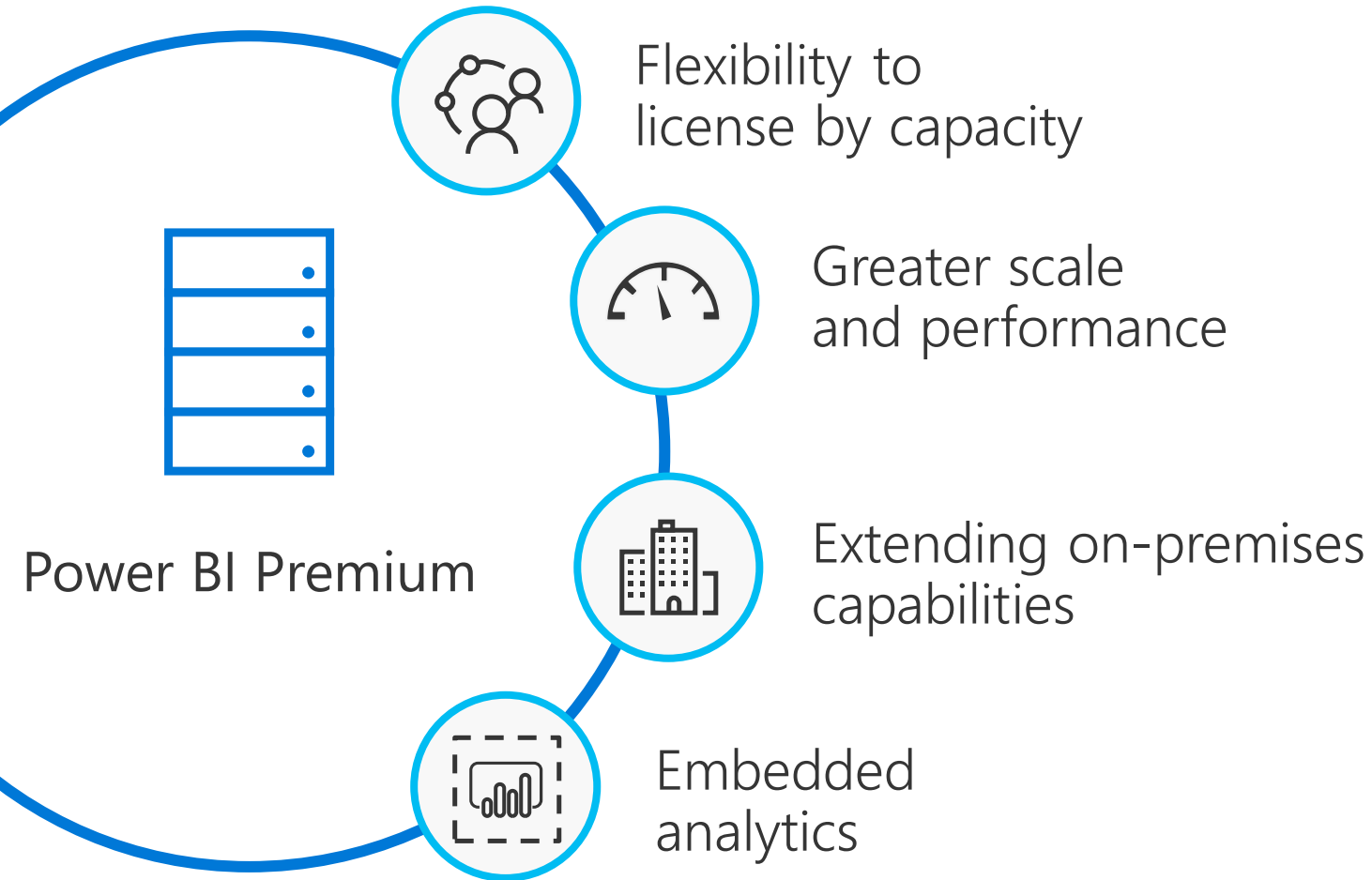
Licensed by capacity

---

An add-on to **Power BI Pro** for projects requiring **large scale data**, demanding **performance**, and the ability to distribute content without requiring per user licensing

# Premium?

*Dedicated resources in the cloud*



*No per-user license (for readers)*

*Dedicated HW, Scaling!*

*Power BI Report Server (PBIRS)*

*Embed Power BI in your applications*

<https://aka.ms/pbipremiumwhitepaper>

<https://powerbi.microsoft.com/en-us/power-bi-premium/>

# Premium - Costs

CAPACITY NODE	CORES	BACKEND CORES	FRONTEND CORES
P1	8 v-cores	4 cores, 25 GB RAM	4 cores
P2	16 v-cores	8 cores, 50 GB RAM	8 cores
P3	32 v-cores	16 cores, 100 GB RAM	16 cores

## How will your users interact with your reports and dashboards?

Total users : 1,000



### ■ Pro Users

22 (2.20%)

Users requiring collaboration, data modelling, content authoring, dashboard, sharing, ad hoc analysis, and report publishing.

### ■ Frequent Users

775 (77.50%)

Users consuming dashboards and reports frequently (multiple times a week).

### ■ Occasional Users

203 (20.30%)

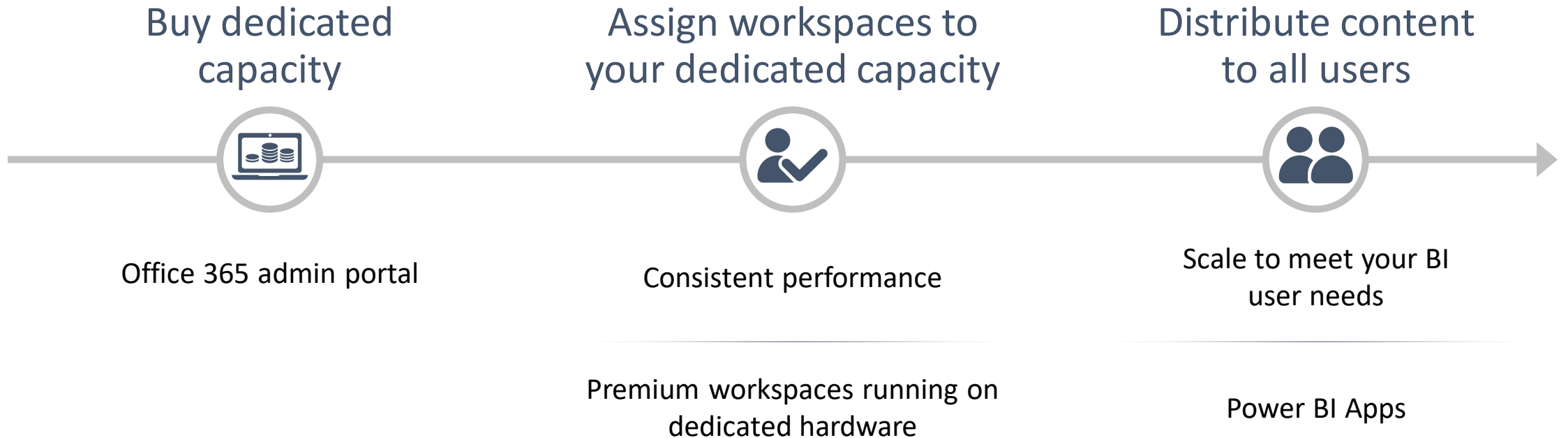
Users consuming dashboards and reports occasionally.

*Premium Node(s)*

+

*PRO User for every report publisher*

# How Power BI Premium works



<https://app.powerbi.com/admin-portal>

# What's coming next?

Noisy neighbor isolation

Real-time cache / pin to memory

Incremental / dedicated refresh

Secondary model copies

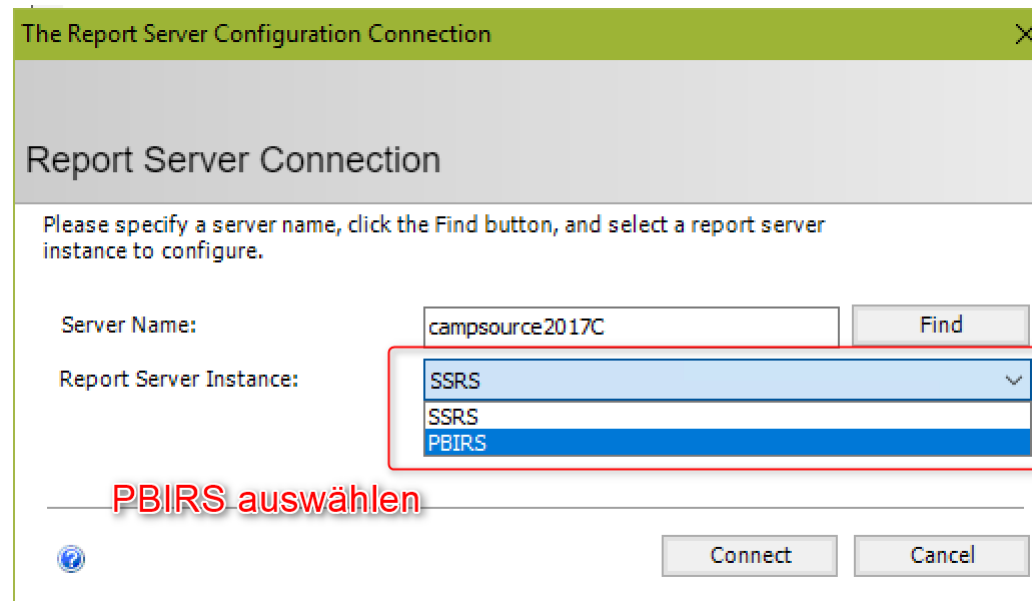
Geo replicas

See them in action..



# Anmerkungen / Fragen / Hinweise (5.12.2017)

- Bei der Konfiguration darauf achten, dass die Instanz PBIRS konfiguriert wird! (Sorry for that 😊)



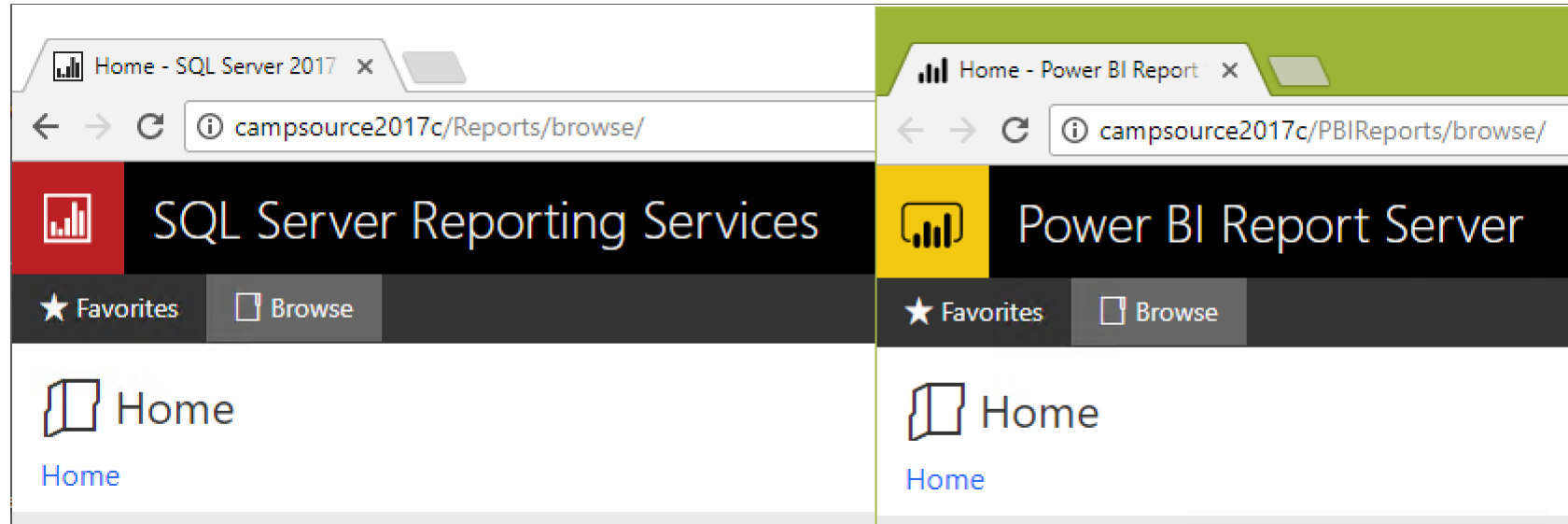
# Konfiguration PBIRS

- Web Service URL und
- Web Portal URL anpassen!

The screenshot displays the 'Report Server Configuration Manager' window for 'campsourc2017C\PBIRS'. The left-hand navigation pane lists various configuration categories, with 'Web Service URL' highlighted in yellow. The main content area is titled 'Web Service URL' and contains the following configuration fields:

- Report Server Web Service Virtual Directory:** A text box containing 'PBIRReportServer'.
- Report Server Web Service Site identification:** A section containing:
  - IP Address:** A dropdown menu set to 'All Assigned (Recommended)'.
  - TCP Port:** A text box containing '80'.
  - HTTPS Certificate:** A dropdown menu set to '(Not Selected)'.
  - HTTPS Port:** An empty text box.
  - An 'Advanced...' button to the right of the HTTPS Port field.
- Report Server Web Service URLs:** A text box containing the URL <http://campsourc2017C:80/PBIRReportServer>.

# Check Report Portal



- Rot = SQL Server Reporting Services (SSRS) Portal
- Gelb = Power BI Report Server Portal

# Power BI Report Server (PBIRS)

Wolfgang Strasser

wolfgang@powerofbi.at

@wstrasser

<http://workingondata.wordpress.com/passcamp2017>

