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SUMMER EDITION

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Rui Romano

“Start Small and Grow Big” with PowerBI & Azure AS

Rui Romano

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🌐 <https://ruiromanoblog.wordpress.com>

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Agenda & Goals

“Start Small and Grow Big” step by step

- Customer case study
- Evolve a Power BI model into Azure AS
- Tools

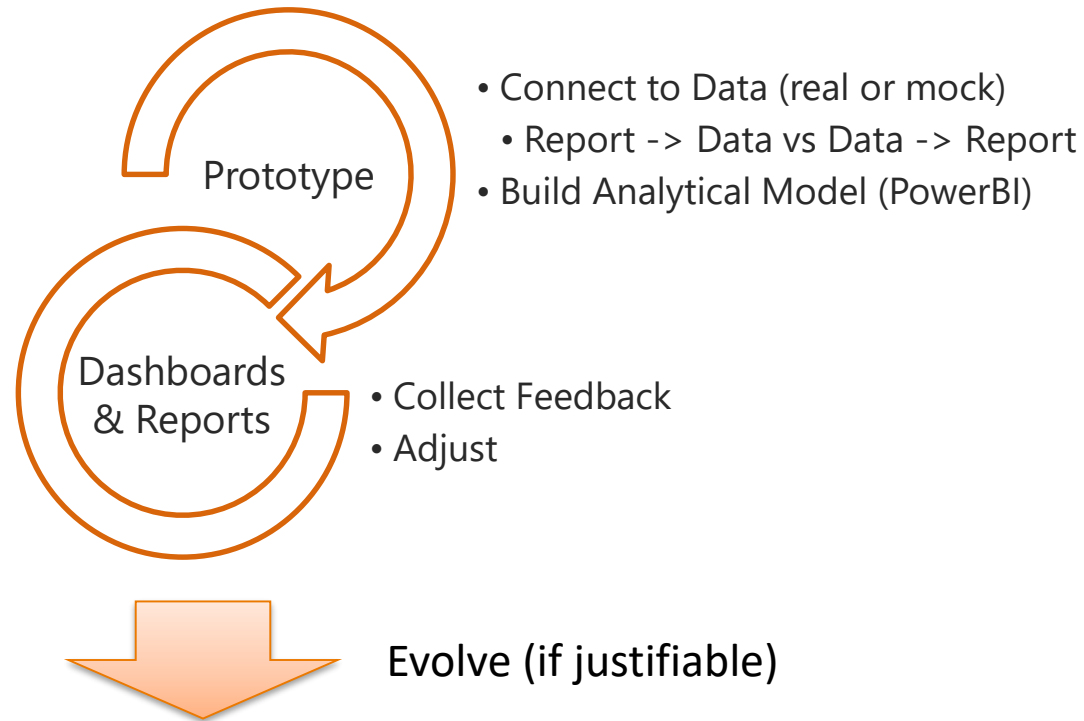
This session is not:

- Intro to Power BI
- Intro to Azure Analysis Services
- Deep dive

"Start Small and Grow Big"? - Traditional

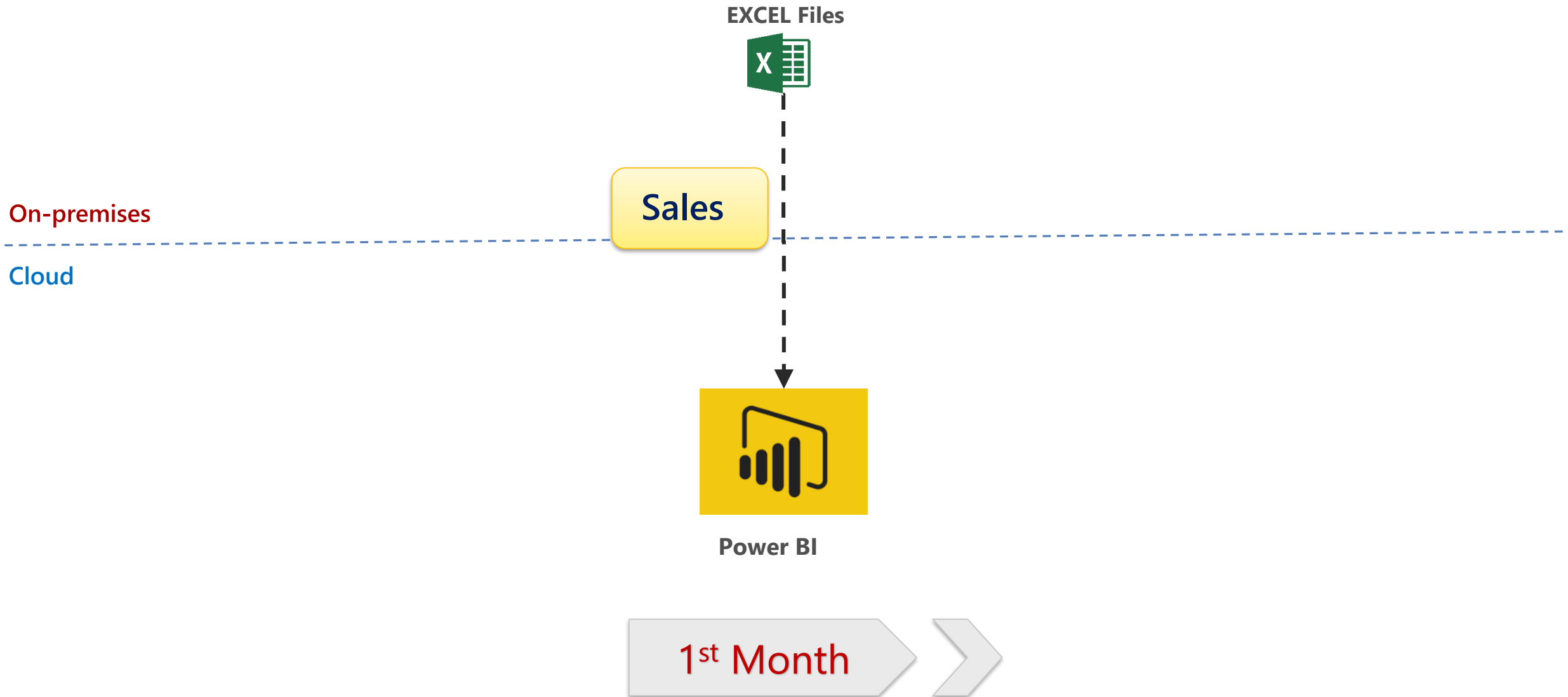


"Start Small and Grow Big"? – Modern?



Case Study: Contidis

Contidis BI Architecture - Evolution





CANDANDO

Margem Mês (RvsO) Margem Ano (RvsO)

97,67% 97,53%

Vendas Dia (Real) Vendas Sem. (Real) Vendas Mês (Real) Vendas Ano (Real)

290,90 K 290,90 K 21,22 M 333,47 M

Vendas Dia (RvsO) Vendas Sem. (RvsO) Vendas Mês (RvsO) Vendas Ano (RvsO)

113,69% 113,69% 106,19% 111,55%



Janeiro Fevereiro Março Abril

WAMMO®
o meu futuro

Margem Mês (RvsO) Margem Ano (RvsO)

99,92% 99,95%

Vendas Dia (Real) Vendas Sem. (Real) Vendas Mês (Real) Vendas Ano (Real)

61,90 K 61,90 K 288,95 K 9,49 M

Vendas Dia (RvsO) Vendas Sem. (RvsO) Vendas Mês (RvsO) Vendas Ano (RvsO)

166,34% 166,34% 168,44% 164,67%



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Margem Mês (RvsO) Margem Ano (RvsO)

99,74% 99,87%

Vendas Dia (Real) Vendas Sem. (Real) Vendas Mês (Real) Vendas Ano (Real)

23,52 K 3,52 K 154,07 K 385,28 K

Vendas Dia (RvsO) Vendas Sem. (RvsO) Vendas Mês (RvsO) Vendas Ano (RvsO)

158,50% 158,50% 158,26% 158,73%



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Margem Mês (RvsO) Margem Ano (RvsO)

101,25% 93,03%

Vendas Dia (Real) Vendas Sem. (Real) Vendas Mês (Real) Vendas Ano (Real)

9,08 K 9,08 K 47,18 K 1,24 M

Vendas Dia (RvsO) Vendas Sem. (RvsO) Vendas Mês (RvsO) Vendas Ano (RvsO)

116,75% 116,75% 120,91% 127,77%



Janeiro Fevereiro Março Abril

Ultimo Dia de Vendas

2017-04-03

Ult. Atualização

04-04-2017

Moeda: USD

Vendas Dia Kz(R vs O) Global

995,09 K✓

Objetivo: 292,57 K (+14.54%)

Vendas Semana (R vs O) Global

935,09 K✓

Objetivo: 992,57 K (+14.54%)

Vendas Mês (R vs O) Global

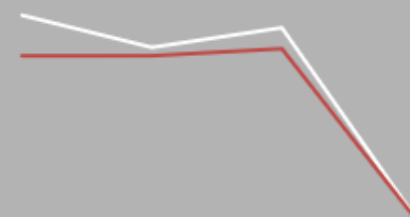
7,57 M✓

Objetivo: 7,47 M (+7.08%)

Vendas Ano (R vs O)

46,56 M✓

Objetivo: 37,81 M (+23.56%)



Janeiro Fevereiro Março Abril

CockPit Vendas

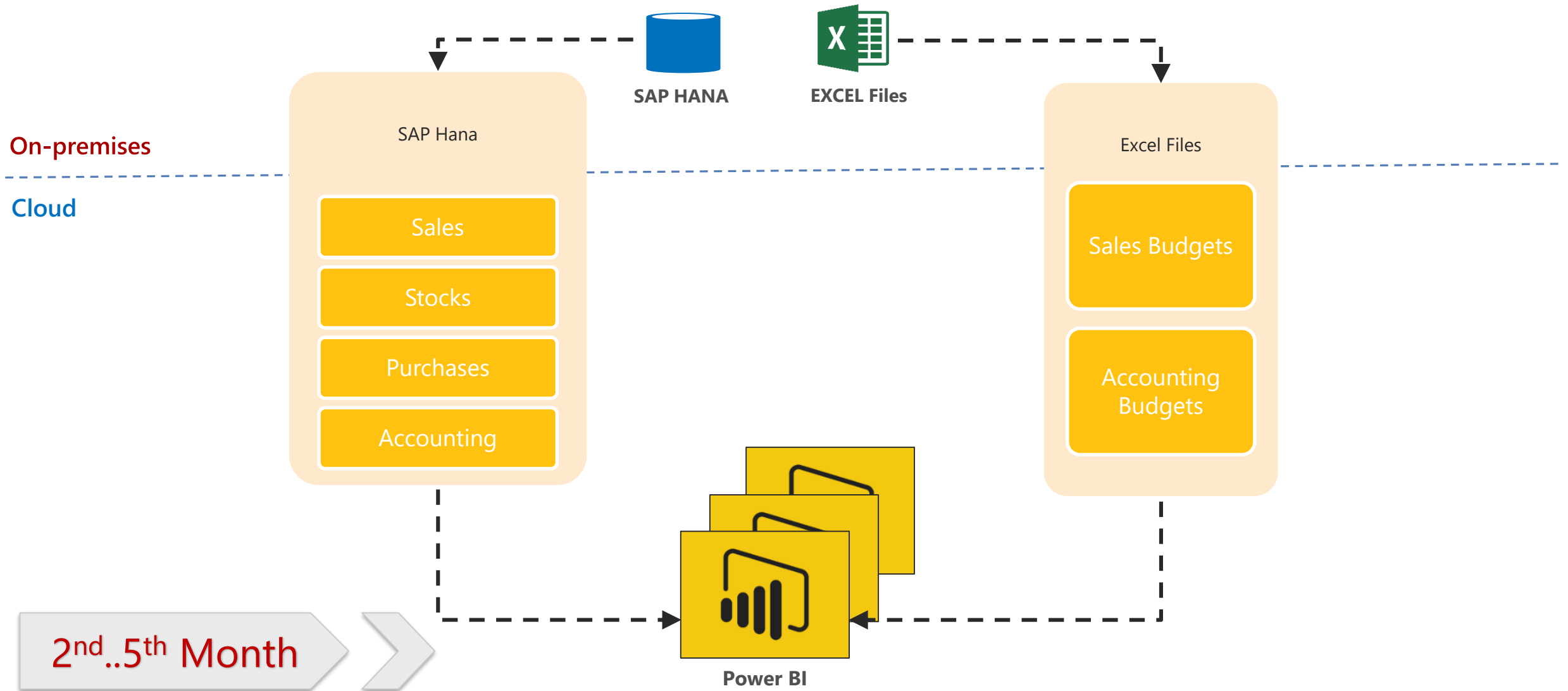
Vendas

Vendas Evolução

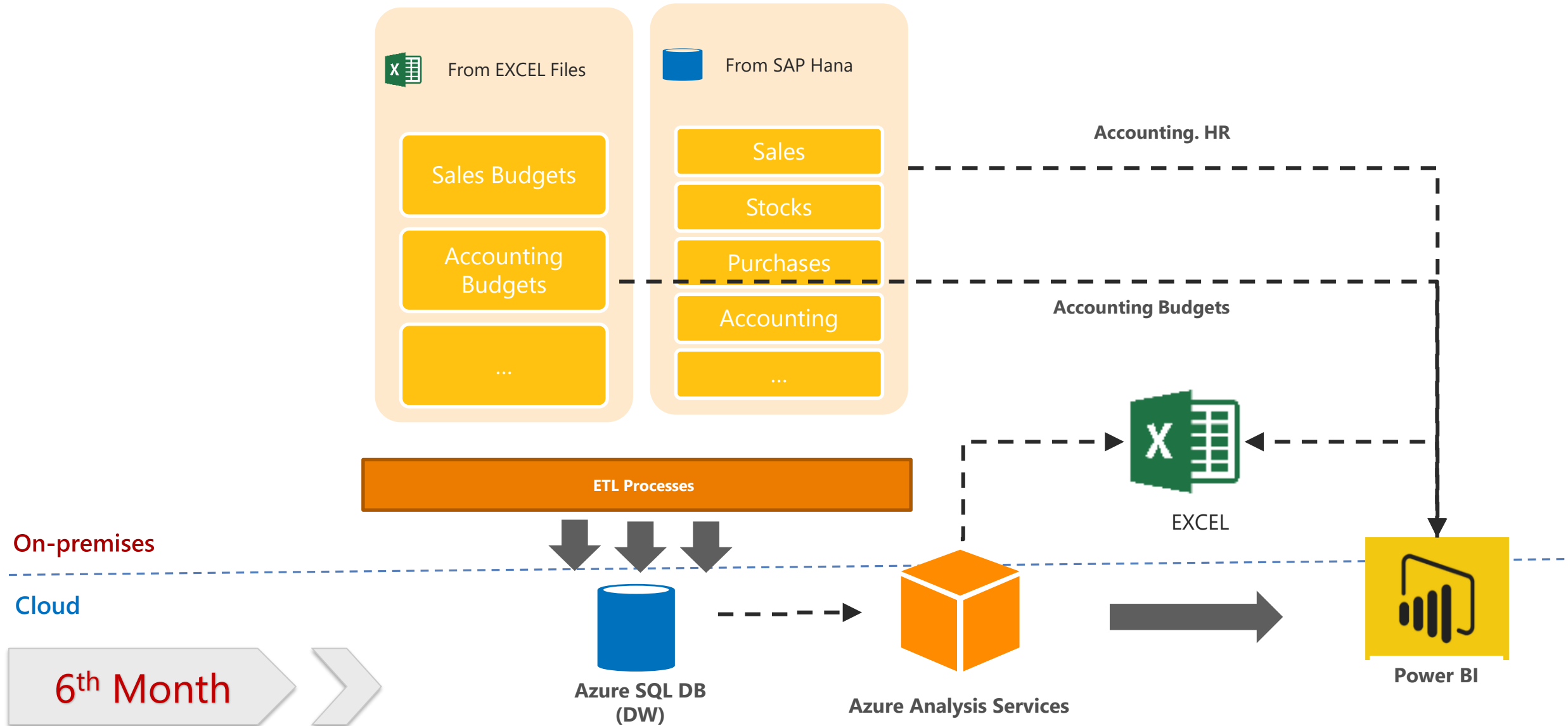
Margens Vs Orçamento

Artigo Vendas

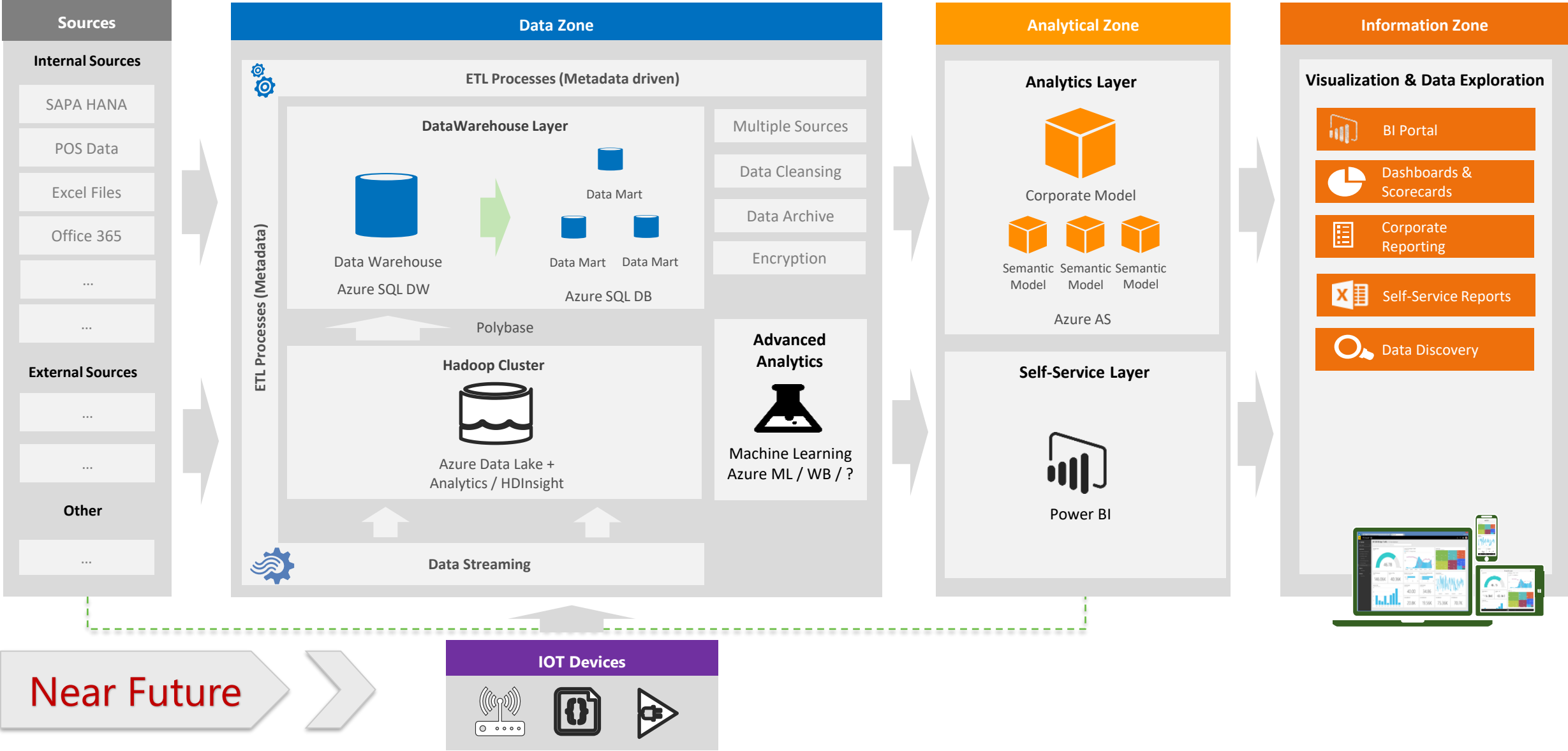
Contidis BI Architecture - Evolution



Contidis BI Architecture - Evolution

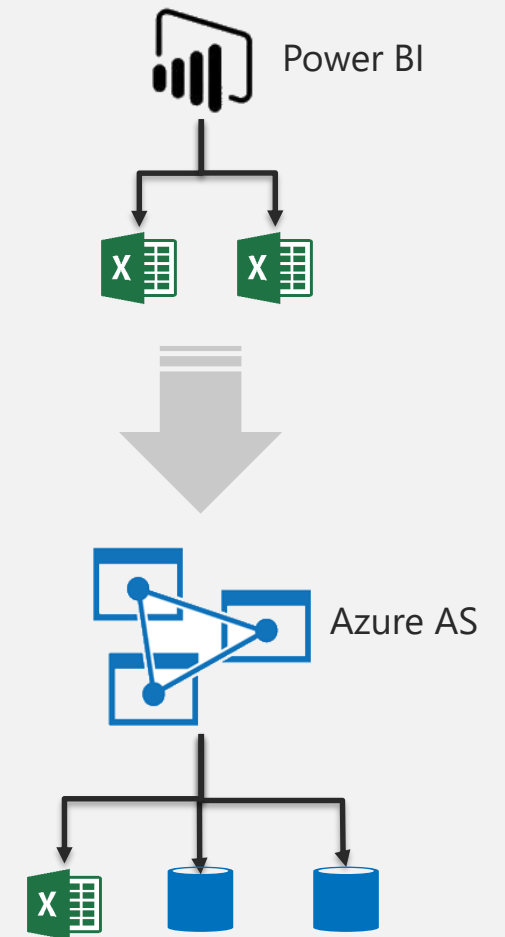


Candando BI Architecture - Evolution



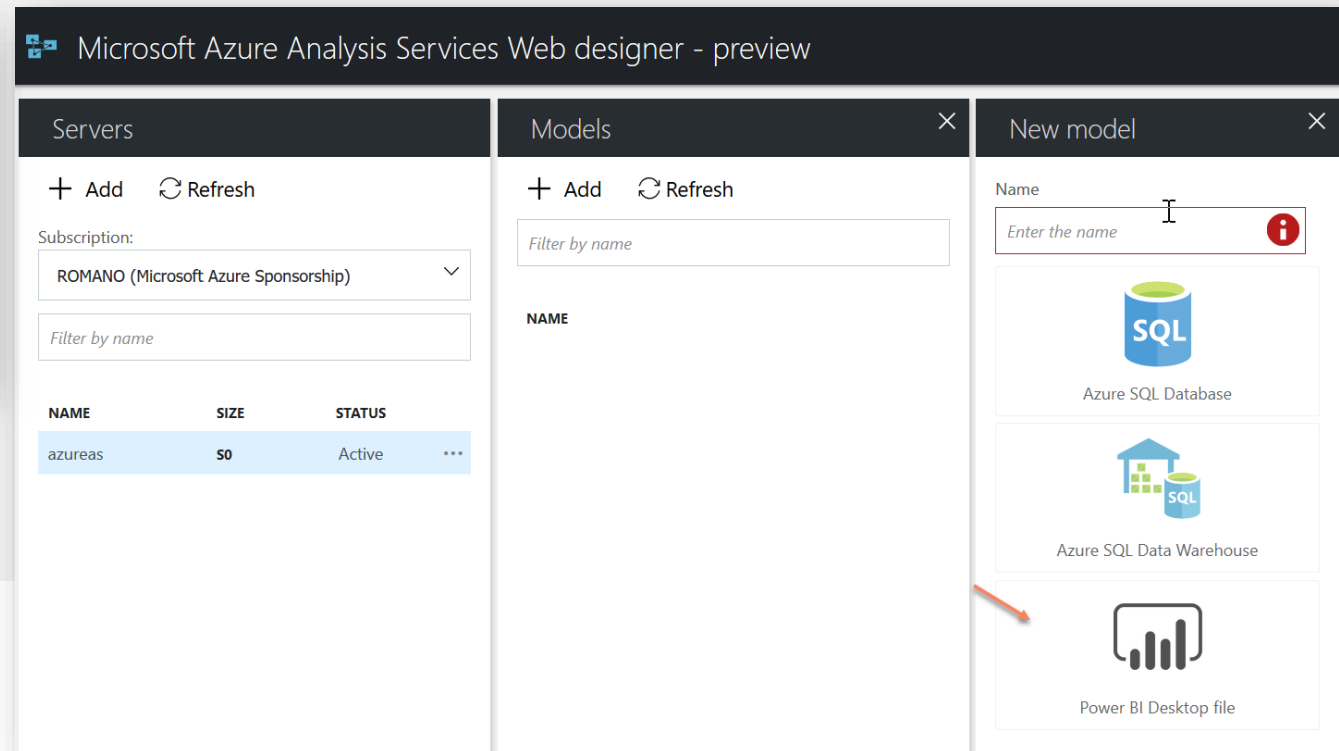
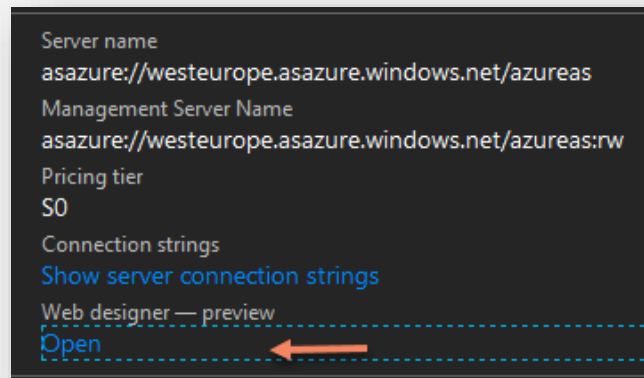
PBIX to AS – Steps

- **Why** evolve to Azure AS?
 - Total Control: Partitioning, Refresh, DevOps
 - More data (pbi limited to 1GB in PRO)
- Steps
 1. **Convert PBIX** to Analysis Services Project
 - Azure AS WebDesigner, PowerBIPS.Tools, Manual
 2. **Convert from file** sources (ex: Excel) to databases (ex: SQL Server) - **Optional**
 3. **Rebind** all the existing reports
 - PBI Desktop or Online using REST API's



PBIX to AS – Azure AS Web Designer

- Issues w/ big .pbix files (+ 50MB)
- All or Nothing (error on unsupported datasources, ex: Sharepoint)



PBIX to AS – Manual Process

- Power BI is an Analysis Services Database!
- Steps:
 1. Connect w/ SSMS ([DaxStudio](#))
 2. Script the PowerBI model database and copy it into model.bim
 3. Change partition type from Import to M
 4. Copy-Paste the M code into the table partition
 5. Declare the datasource on VS
 6. Deploy!

PBIX to AS – PowerBIPS.Tools

- Use [PowerBIPS.Tools](#)
 - Convert-PowerBIDesktopToASTabular
- Not Perfect!
 - But better than nothing 😊

```
Import-Module PowerBIPS.Tools  
# Converts the opened Power BI Desktop file into a Analysis Services Project  
Convert-PowerBIDesktopToASTabular -pbiDesktopWindowName "*VanArsde1*" -outputPath "$currentPath\Source\VanArsde1AS"
```

PBIX to AS - M to SQL - Optional

- Accelerate your DW/DataMart creation w/ [PowerBIPS.Tools](#) cmdlet:
 - Export-PBIDesktopToSQL

```
Import-Module PowerBIPS.Tools

# Exports all tables from pbix into SQL Server DB

Export-PBIDesktopToSQL -pbidesktopwindowName "*VanArsdel*" -tables @() `
    -sqlConnStr "Server=.\sql2017;Initial Catalog=VanArsdel; Integrated Security=True" -sqlSchema "dw"
```

PBIX to AS - Report Rebind

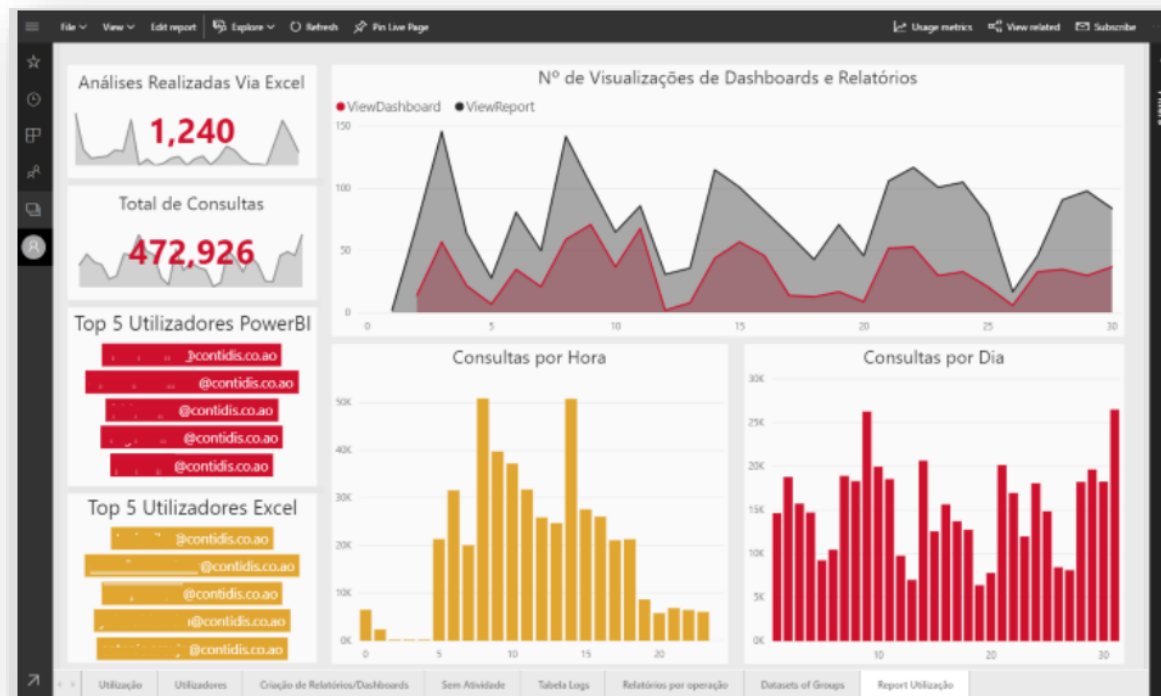
- Using Power BI Desktop
 - [Edit Queries + Delete + Connect](#)
- Using the REST API's
 - [PowerBIPS](#) – *Set-PBIReportsDataset*

```
# Rebind all the reports from a workspace
Get-PBIReport -groupId "id" | Set-PBIReportsDataset -targetDatasetId "targetDatasetId"

# Rebing all the reports that target a specific dataset
Set-PBIReportsDataset -sourceDatasetId "sourceDataSetId" -targetDatasetId "targetDatasetId"
```

AS - Usage Monitoring

- Activate Azure AS Diagnostics
- Correlate w/ [Power BI Audit Logs](#)
- Measure & Report on:
 - Top Reports / Users
 - Most expensive queries
 - Usage over time



AS - Resource Automation

- Automatically scale up/down, on/off your Azure AS database
- Solutions
 - PowerShell – Azure RM
 - Azure REST API's

```
# Blog: https://ruiromanoblog.wordpress.com/2017/05
param(
    [string] $azureProfilePath = "",
    [string] $azureRunAsConnectionName = "",
    $config = @(
        @{
            ResourceGroupName = "AzureAS";
            ResourceType = "AnalysisServices";
            Name = "azureas";
            ActiveDays = 1..4;
            ActiveHours = 8..23;
            SKU = "S0"
        }
        <#
        @{
            ResourceGroupName = "RM1";
            ResourceType = "VirtualMachine";
            Name = "VMName";
            ActiveDays = 1..5;
            ActiveHours = 2..5 + 10..23
        }
    )
)
```



PLEASE FILL IN THE
EVALUATION FORM.

YOUR OPINION IS
IMPORTANT!

Contacts

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<https://ruiromanoblog.wordpress.com/>

@RuiRomano

Links

- PowerBIPS & PowerBIPS.Tools <https://github.com/DevScope/powerbi-powershell-modules>
- Azure Resource Automation - <https://github.com/DevScope/azure-powershell-resourcemanager>
- AS Powershell Modules - <https://github.com/DevScope/ssas-powershell-modules>

*Thank you!
&
Ask Questions...*

AT THE ENTRANCE AFTER THE LAST SESSION OF THE DAY



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