Developing Your OWN Custom OMS Solutions

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Wednesday 21st September, 2016

Meetup

MVP Microsoft® Most Valuable Professional

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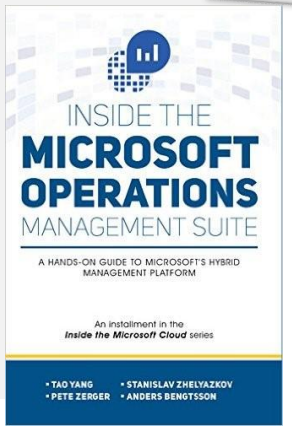
Tao Yang

- Independent Consultant
- System Center and OMS
- SCOM Management Pack Developer
- PowerShell Since Version 1.0
- Co-Author of the *Inside Microsoft Operations Management Suite* book
- MVP – Cloud and Datacenter Management



Agenda

- OMS Data Injection Overview
- OMS HTTP Data Collector API
- OMS Custom View Designer
- Demo
- Q&A – Giving away a copy of the *Inside OMS* book.

OMS Data Sources – As of today

Agent Based

- Windows
- Linux
- Docker Container

API Based

- Azure services
- Office 365
- Application Insights (App Insights)
- SysCtr ConfigMgr
- Windows Telemetry
- HTTP Data Collector API
- Much more to come…

OMS Data Collector HTTP API

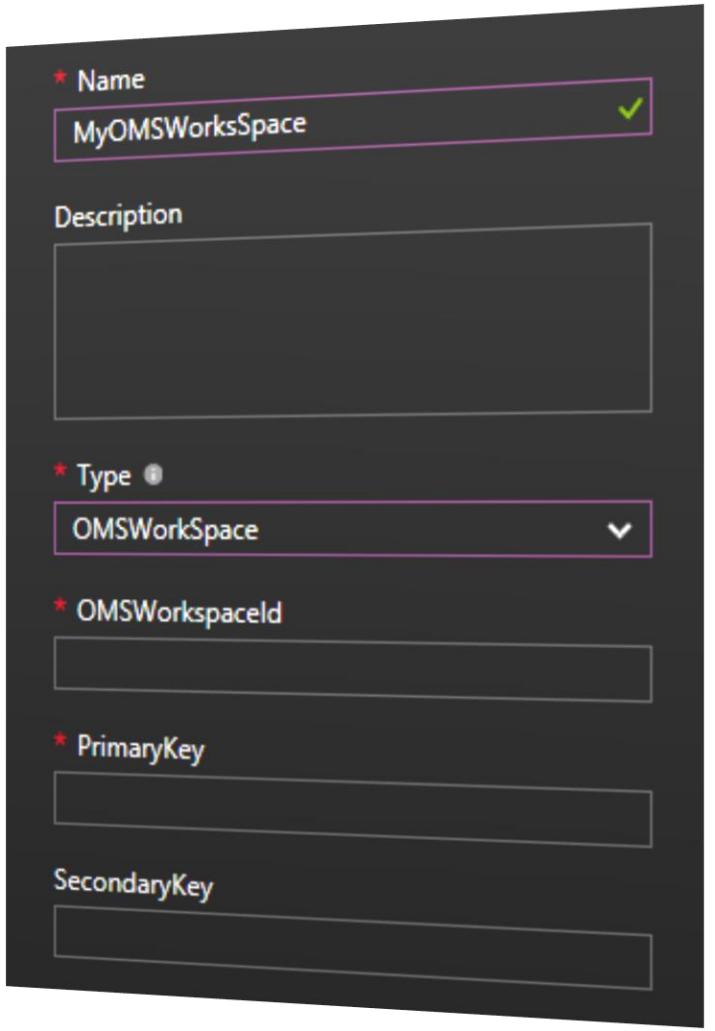
- Newly released HTTP based API
  - Using HTTP POST method
- Authenticate using OMS Workspace ID and access key (primary / secondary)
- Define your own log schema and fields data types
  - String | GUID | Double | Boolean | Date/time
- Leverages OMS Custom Fields
  - Also in Preview at the moment
  - Currently limited to 100 custom fields per workspace

OMS Data Collector HTTP API

- Documentation
  - https://azure.microsoft.com/en-us/documentation/articles/log-analytics-data-collector-api/
- Product Group Blog Post
  - https://blogs.technet.microsoft.com/msoms/2016/08/30/http-data-collector-api-send-us-data-from-space-or-anywhere/

OMSDataInjection PowerShell Module

- Wrapped the HTTP API into a PowerShell module
- Standalone PowerShell Module
- Also Compatible with Azure Automation or SMA
- Author: Tao Yang



OMSDataInjection PowerShell Module

Syntax:

```
$PrimaryKey = Read-Host -Prompt 'Enter the primary key'
$ObjProperties = @{
  Computer = $env:COMPUTERNAME
  Username = $env:USERNAME
  Message  = 'This is a test message injected by the OMSDataInjection module. Input data type: PSObject'
  LogTime  = [Datetime]::UtcNow
}
$OMSDataObject = New-Object -TypeName PSObject -Property $ObjProperties
$InjectData = New-OMSDataInjection -OMSWorkSpaceId '8fb61d08-12ac-400a-a45b-0e607994779f'`
 -PrimaryKey $PrimaryKey -LogType 'OMSTestData'`
 -UTCTimeStampField 'LogTime' -OMSDataObject $OMSDataObject
```

OMSDataInjection PowerShell Module

- Using it in an Azure Automation runbook:

```
$OMSConnection = Get-AutomationConnection 'OMSConnection'
$OMSDataJSON = @"
{
    "Username":  "administrator",
    "Message":  "This is a test message injected by the OMSDataInjection module. Input data type: JSON",
    "LogTime":  "Tuesday, 28 June 2016 9:08:15 PM",
    "Computer":  "SERVER01"
}
"@
$InjectData = New-OMSDataInjection -OMSConnection $OMSConnection`
 -LogType 'OMSTestData' -UTCTimeStampField 'LogTime' -OMSDataJSON $OMSDataJSON
```

OMSDataInjection PowerShell Module

- Blog Post
  - http://blog.tyang.org/2016/08/31/powershell-module-for-oms-http-data-collector-api/
- GitHub
  - https://github.com/tyconsulting/OMSDataInjection-PSModule
- PowerShell Gallery
  - https://www.powershellgallery.com/packages/OMSDataInjection

OMS Custom View Designer

- Design Your Own views
- Based on Existing Data
- Public Preview

Demo – SQL DB Migration Assessment Tool

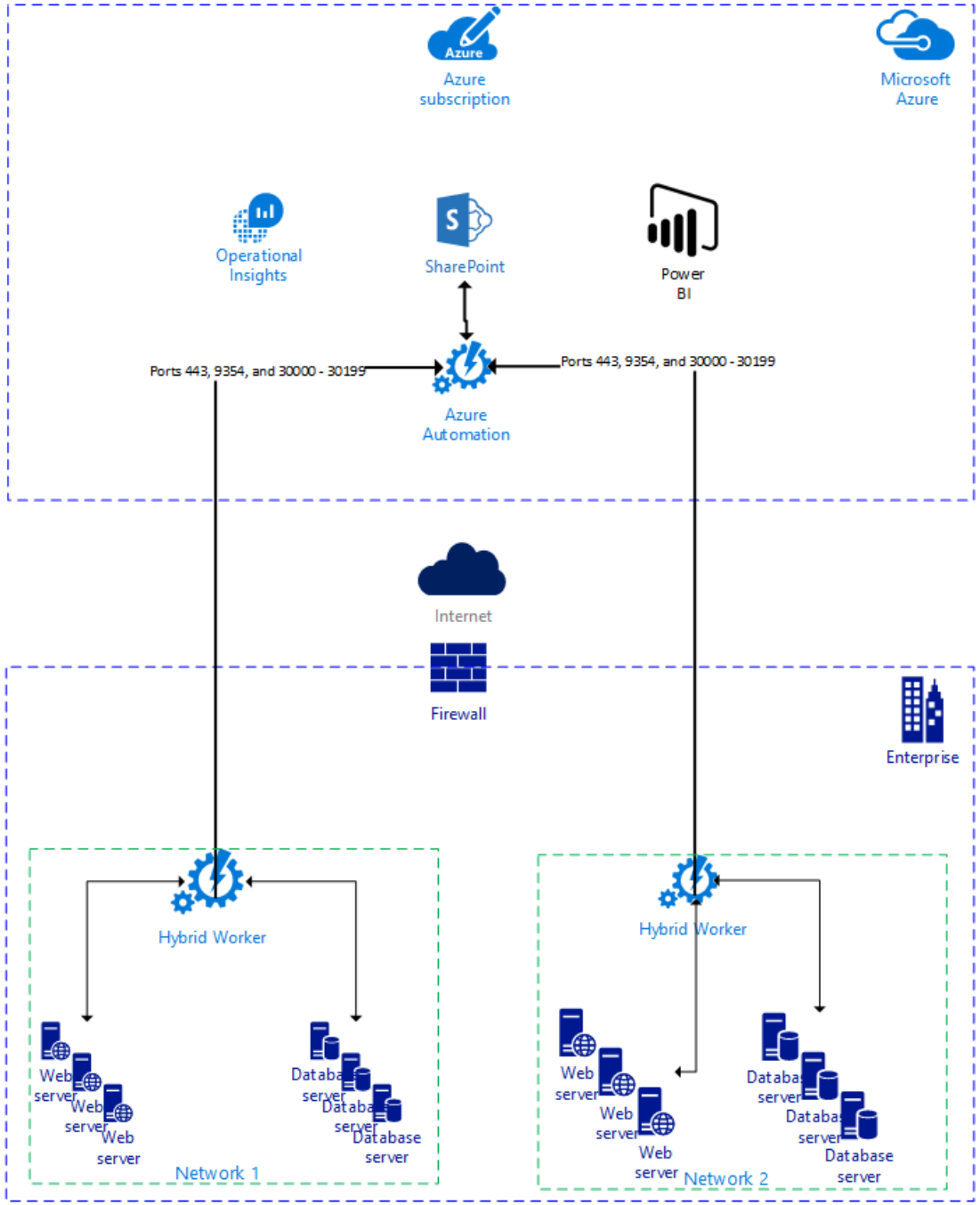
- A real life example

SQL DB Migration Assessment Tool

- A tool designed to assess the SQL database readiness for the following platforms:
  - Azure SQL Database (PaaS)
  - Azure Stack SQL Resource Provider (PaaS)
  - Azure Virtual Machines (IaaS)
  - Azure Stack Virtual Machines (IaaS)
- Evaluates readiness on the infrastructure level ONLY
- Use existing tools to check the DB schema compatibilities

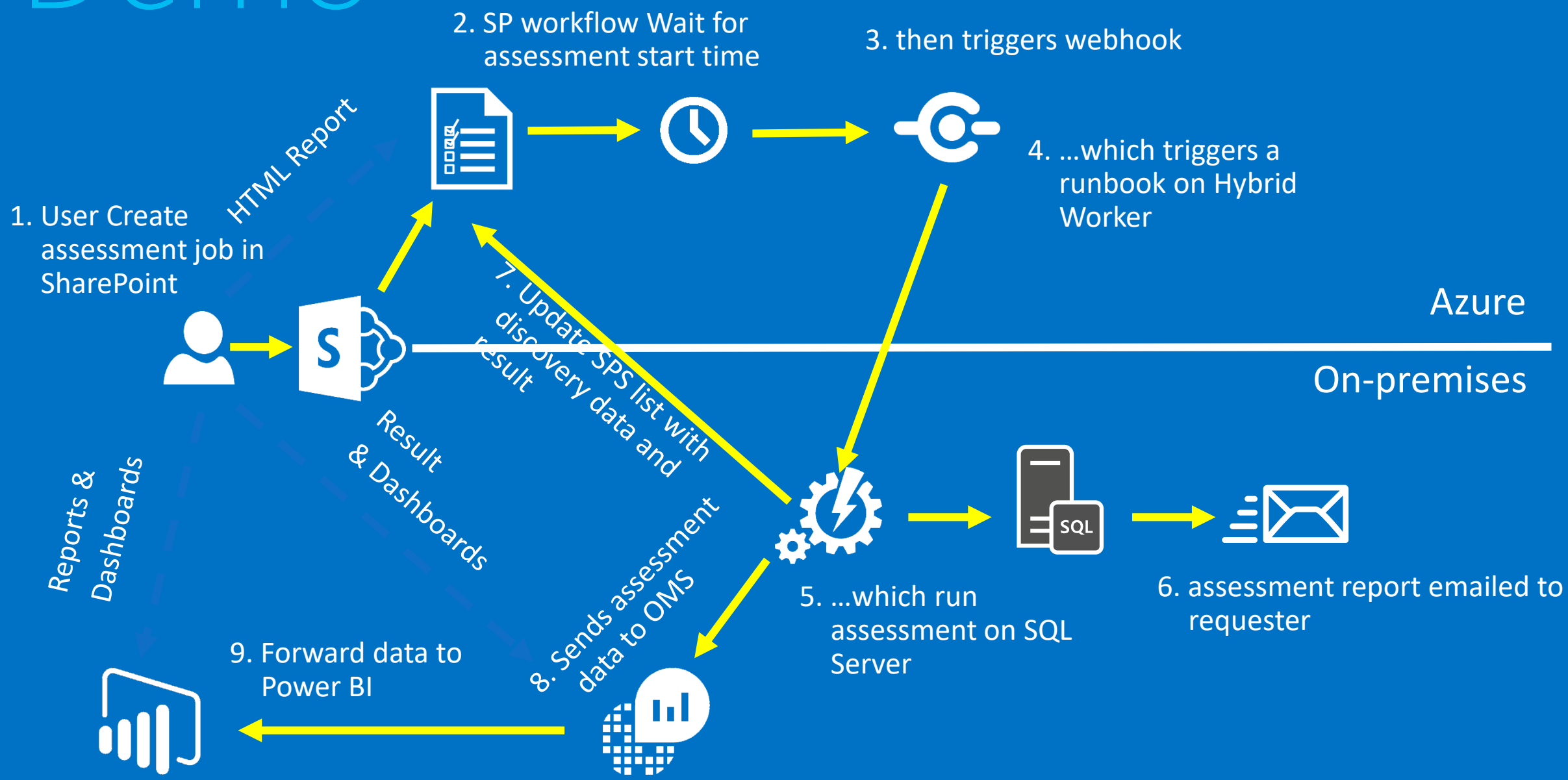
High Level Architecture

- SharePoint Online – Front End User Portal
- Azure Automation – Back End Processing Engine
  - Hybrid Runbook Workers
- OMS – Data Analysis and Visualisation
- Power BI

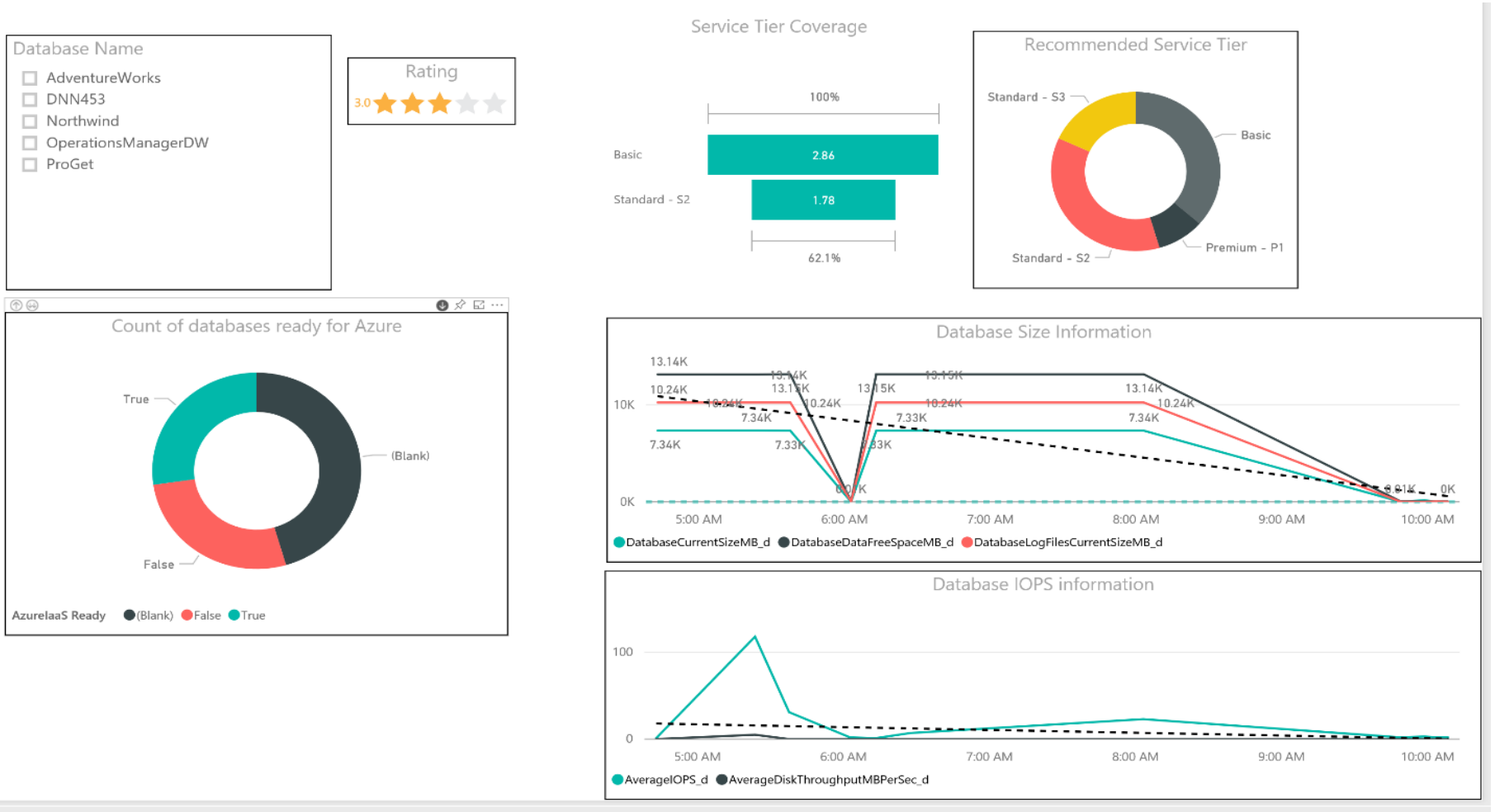


Demo

SQL Migration Assessment Tool



Power BI Reports for Custom OMS Solutions



Thanks!