

Active Directory Domain Services

Last updated by | Mohamad Damati | Dec 23, 2020 at 3:14 PM GMT+3

Contents

- [Introduction](#)
 - [Getting Started](#)
 - [Prerequisites](#)
 - [Active Directory Domain Services Enterprise Dashboard De...](#)
 - [Step 1: Create Dashboard Group](#)
 - [Step 2: Modify Sync Rule](#)
 - [Step 3: Confirm Group populates information to Enterprise...](#)
 - [Step 4: Import Dashboard Template File](#)
 - [Step 5: Save Dashboard to Power BI Report Server](#)
 - [Step 6: Configure Data Source Settings](#)

Introduction

This guide will take you through the steps of deploying and configuring Enterprise Dashboards for Active Directory Domain Services

Getting Started

There are actions must be done before create and deploy System Center Enterprise Dashboard and steps you must take to properly deploy it.

Prerequisites

Before you start you must make sure you have the following prerequisites:

1. Power BI Reporting Service
2. Operations Manager 2012 R2, 2016 or 2019
3. Operations Manager Environment is healthy and does not suffer from performance issues.
4. Service Account to access databases
5. Download and import latest Active Directory Domain Services Management Pack
6. Import Windows Servers Core OS Dashboard as some components depends on it.

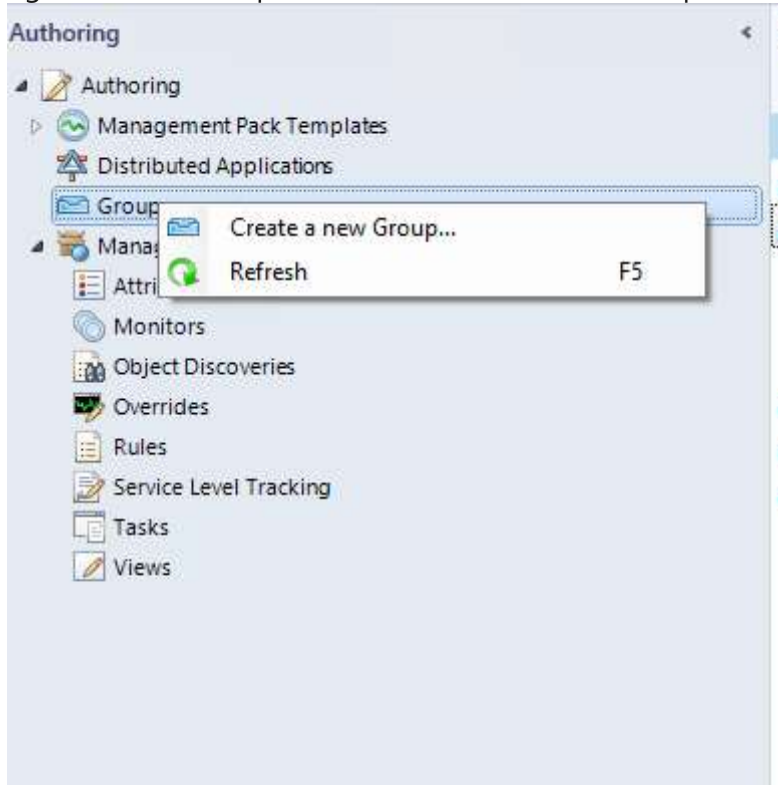
Active Directory Domain Services Enterprise Dashboard Deployment

Use the following steps to deploy Dashboard.

Step 1: Create Dashboard Group

Enterprise Dashboards scope is defined based on Operations Manager Group for each workload, for Active Directory Domain Services Dashboard the scope group name is **AD Dashboard Group**.

1. Open SCOM Console, browse to Authoring --> Groups
2. right Click on Groups and select Create a new Group



3. In Create Group Wizard, Type Group name "**AD Dashboard Group**" and in Management Pack destination, click on **New**. Create New management pack to save this group. click **Next** and in Knowledge Page click

Create

Create Group Wizard

Enter a name and description for the new group.

General Properties

Explicit Members

Dynamic Members

Subgroups

Excluded Members

Enter a friendly name and description

Name:
AD Dashboard Group

Description:

Management pack

Select destination management pack:
SC Enterprise Dashboards - AD Dashboard Group

Help

< Previous Next > Create Cancel

4. Verify Dashboard name and click **Next**

5. On Explicit Members page, Click **Next**

The screenshot shows the 'Create Group Wizard' window with the 'Explicit Members' tab selected. The window title is 'Create Group Wizard'. The main heading is 'Choose Members from a List'. The left sidebar contains the following options: 'General Properties', 'Explicit Members' (selected), 'Dynamic Members', 'Subgroups', and 'Excluded Members'. The main area is titled 'Explicit Group Members (optional)' and contains the instruction 'Choose specific objects that will be members of this group.' Below this is a button labeled 'Add/Remove Objects...'. A table titled 'Group members:' is present, with columns 'Name', 'Path', and 'Full Name'. The table is currently empty. At the bottom right, there are four buttons: '< Previous', 'Next >', 'Create', and 'Cancel'. A 'Help' icon is located in the top right corner of the main area.

Create Group Wizard

Choose Members from a List

General Properties

Explicit Members

Dynamic Members

Subgroups

Excluded Members

Help

Explicit Group Members (optional)

Choose specific objects that will be members of this group.

Add/Remove Objects...

Group members:

Name	Path	Full Name
------	------	-----------

< Previous Next > Create Cancel

6. On Dynamic Members page, Click on **Create/Edit rules**

Create Group Wizard

Create a Membership Formula

General Properties

Explicit Members

Dynamic Members

Subgroups

Excluded Members

Dynamic Inclusion Rules (optional)

Use a formula to populate group membership.

Create/Edit rules...

Query formula:

< Previous Next > Create Cancel

Help

7. Add Following Classes by selecting **class name** and then **Insert**

- a. Active Directory Domain
- b. Active Directory Domain Controller Computer Role
- c. Active Directory Service Component
- d. Active Directory Topology Root

Then Click **Ok**

Create Group Wizard - Query Builder

Select the desired Class and click the Add button to begin building the formula:

Windows Computer ▼ Add

+ Insert × Delete ✖ Formula ⌘

	Property	Operator	Value
<input type="checkbox"/>	OR group (any of these is true)		
<input type="checkbox"/>	AND group for Active Directory Domain (all of these are true)		
		!	
<input type="checkbox"/>	AND group for Active Directory Domain Controller Computer Role (all of these are true)		
		!	
<input type="checkbox"/>	AND group for Active Directory Service Component (all of these are true)		
		!	
<input type="checkbox"/>	AND group for Active Directory Topology Root (all of these are true)		
<input checked="" type="checkbox"/>	▼		

OK Cancel

8. Check Query formula written and click **Ok**

The screenshot shows the 'AD Dashboard Group Properties' dialog box with the 'Dynamic Members' tab selected. The 'Dynamic Inclusion Rules (optional)' section is active, displaying a query formula. The formula is: `((Object is Active Directory Domain AND True) OR (Object is Active Directory Domain Controller Computer Role AND True) OR (Object is Active Directory Service Component AND True) OR (Object is Active Directory Topology Root AND True))`. The 'OK' button is highlighted with a blue border.

AD Dashboard Group Properties

General | Explicit Members | **Dynamic Members** | Subgroups | Excluded Members | Product Knowledge | Overrides

Dynamic Inclusion Rules (optional)

Use a formula to populate group membership.

Create/Edit rules...

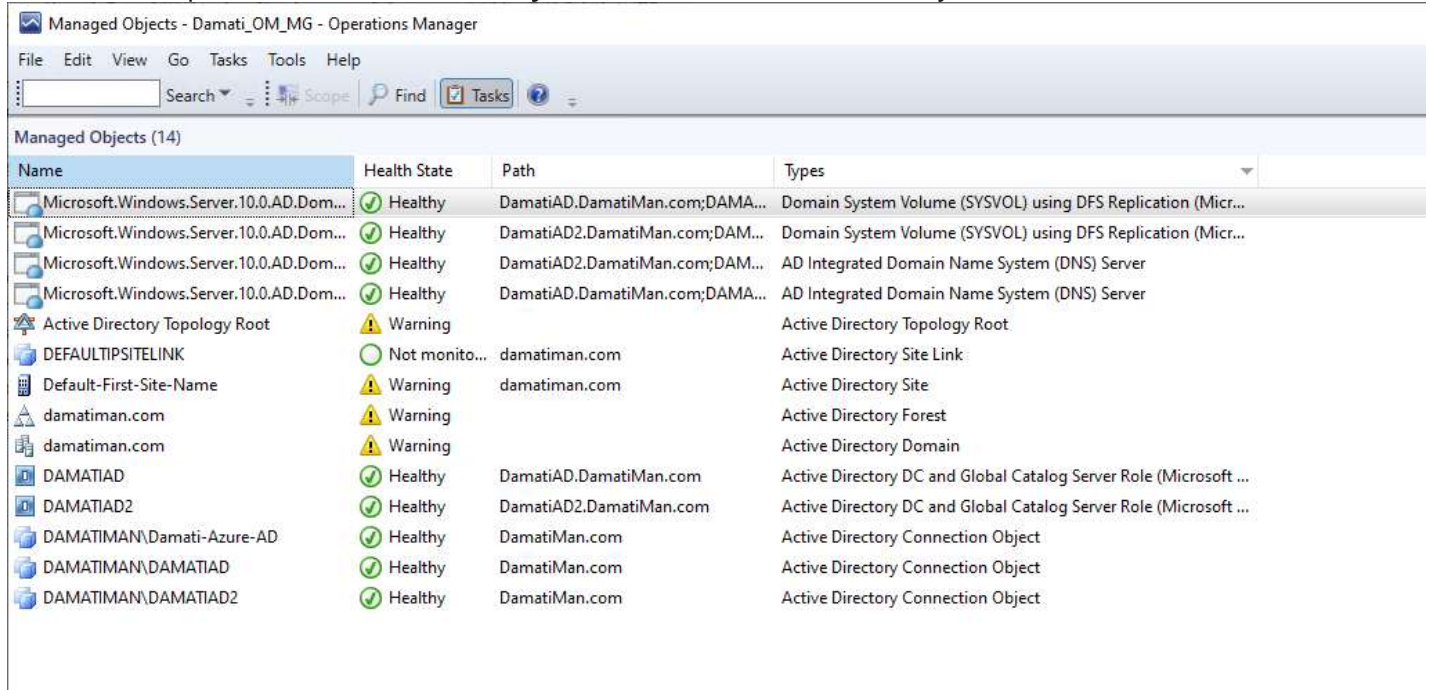
Query formula:

((Object is Active Directory Domain AND True) OR (Object is Active Directory Domain Controller Computer Role AND True) OR (Object is Active Directory Service Component AND True) OR (Object is Active Directory Topology Root AND True))

OK Cancel Apply

9. Find the Group created, right click on it and select **View Group Members**

10. Confirm Group members includes all objects that were mentioned in dynamic rules.

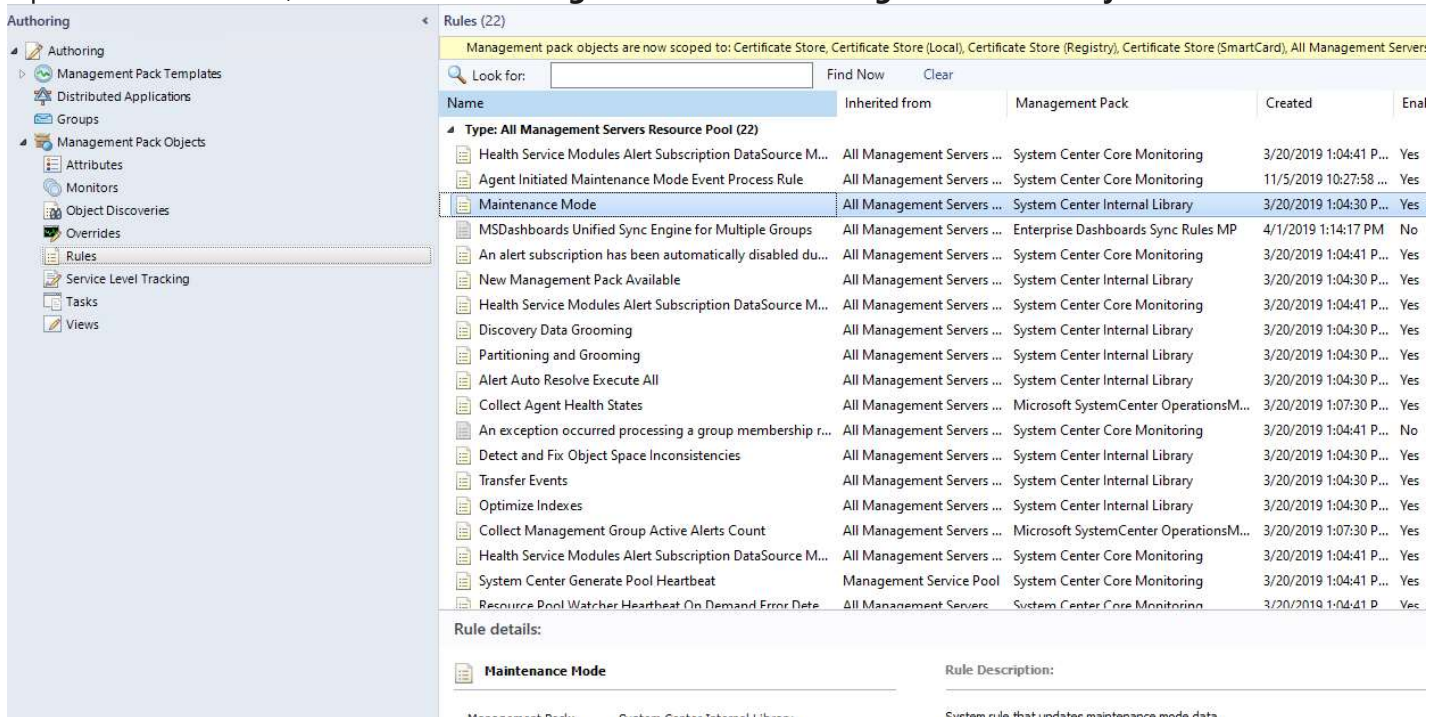


Name	Health State	Path	Types
Microsoft.Windows.Server.10.0.AD.Dom...	Healthy	DamatiAD.DamatiMan.com;DAMA...	Domain System Volume (SYSVOL) using DFS Replication (Micr...
Microsoft.Windows.Server.10.0.AD.Dom...	Healthy	DamatiAD2.DamatiMan.com;DAM...	Domain System Volume (SYSVOL) using DFS Replication (Micr...
Microsoft.Windows.Server.10.0.AD.Dom...	Healthy	DamatiAD2.DamatiMan.com;DAM...	AD Integrated Domain Name System (DNS) Server
Microsoft.Windows.Server.10.0.AD.Dom...	Healthy	DamatiAD.DamatiMan.com;DAMA...	AD Integrated Domain Name System (DNS) Server
Active Directory Topology Root	Warning		Active Directory Topology Root
DEFAULTTIPSITELINK	Not monito...	damatiman.com	Active Directory Site Link
Default-First-Site-Name	Warning	damatiman.com	Active Directory Site
damatiman.com	Warning		Active Directory Forest
damatiman.com	Warning		Active Directory Domain
DAMATIAD	Healthy	DamatiAD.DamatiMan.com	Active Directory DC and Global Catalog Server Role (Microsoft ...
DAMATIAD2	Healthy	DamatiAD2.DamatiMan.com	Active Directory DC and Global Catalog Server Role (Microsoft ...
DAMATIMAN\Damati-Azure-AD	Healthy	DamatiMan.com	Active Directory Connection Object
DAMATIMAN\DAMATIAD	Healthy	DamatiMan.com	Active Directory Connection Object
DAMATIMAN\DAMATIAD2	Healthy	DamatiMan.com	Active Directory Connection Object

Step 2: Modify Sync Rule

Enterprise Dashboards sync rule need to be modified to include new group created. the sync rule later, will start populating group members state information to EnterpriseDashbaord Database. follow below steps to add group to Sync Rule

1. Open SCOM Console, browse to **Authoring** Tab and **select Management Pack Objects --> Rules**



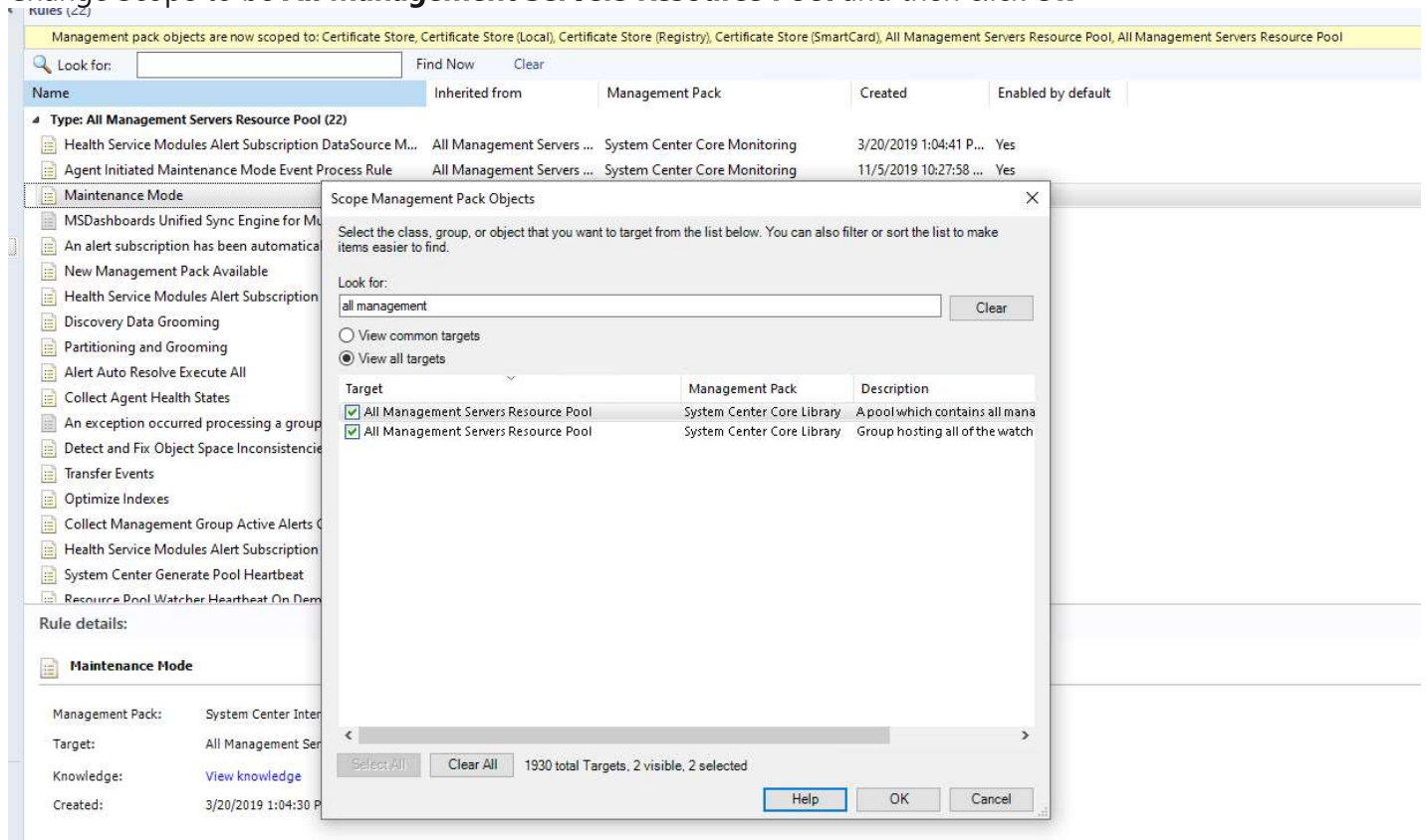
Name	Inherited from	Management Pack	Created	Enal
Type: All Management Servers Resource Pool (22)				
Health Service Modules Alert Subscription DataSource M...	All Management Servers ...	System Center Core Monitoring	3/20/2019 1:04:41 P...	Yes
Agent Initiated Maintenance Mode Event Process Rule	All Management Servers ...	System Center Core Monitoring	11/5/2019 10:27:58 ...	Yes
Maintenance Mode	All Management Servers ...	System Center Internal Library	3/20/2019 1:04:30 P...	Yes
MSDashboards Unified Sync Engine for Multiple Groups	All Management Servers ...	Enterprise Dashboards Sync Rules MP	4/1/2019 1:14:17 PM	No
An alert subscription has been automatically disabled du...	All Management Servers ...	System Center Core Monitoring	3/20/2019 1:04:41 P...	Yes
New Management Pack Available	All Management Servers ...	System Center Internal Library	3/20/2019 1:04:30 P...	Yes
Health Service Modules Alert Subscription DataSource M...	All Management Servers ...	System Center Core Monitoring	3/20/2019 1:04:41 P...	Yes
Discovery Data Grooming	All Management Servers ...	System Center Internal Library	3/20/2019 1:04:30 P...	Yes
Partitioning and Grooming	All Management Servers ...	System Center Internal Library	3/20/2019 1:04:30 P...	Yes
Alert Auto Resolve Execute All	All Management Servers ...	System Center Internal Library	3/20/2019 1:04:30 P...	Yes
Collect Agent Health States	All Management Servers ...	Microsoft SystemCenter OperationsM...	3/20/2019 1:07:30 P...	Yes
An exception occurred processing a group membership r...	All Management Servers ...	System Center Core Monitoring	3/20/2019 1:04:41 P...	No
Detect and Fix Object Space Inconsistencies	All Management Servers ...	System Center Internal Library	3/20/2019 1:04:30 P...	Yes
Transfer Events	All Management Servers ...	System Center Internal Library	3/20/2019 1:04:30 P...	Yes
Optimize Indexes	All Management Servers ...	System Center Internal Library	3/20/2019 1:04:30 P...	Yes
Collect Management Group Active Alerts Count	All Management Servers ...	Microsoft SystemCenter OperationsM...	3/20/2019 1:07:30 P...	Yes
Health Service Modules Alert Subscription DataSource M...	All Management Servers ...	System Center Core Monitoring	3/20/2019 1:04:41 P...	Yes
System Center Generate Pool Heartbeat	Management Service Pool	System Center Core Monitoring	3/20/2019 1:04:41 P...	Yes
Resource Pool Watcher Heartbeat On Demand Error Det...	All Management Servers ...	System Center Core Monitoring	3/20/2019 1:04:41 P...	Yes

Rule details:

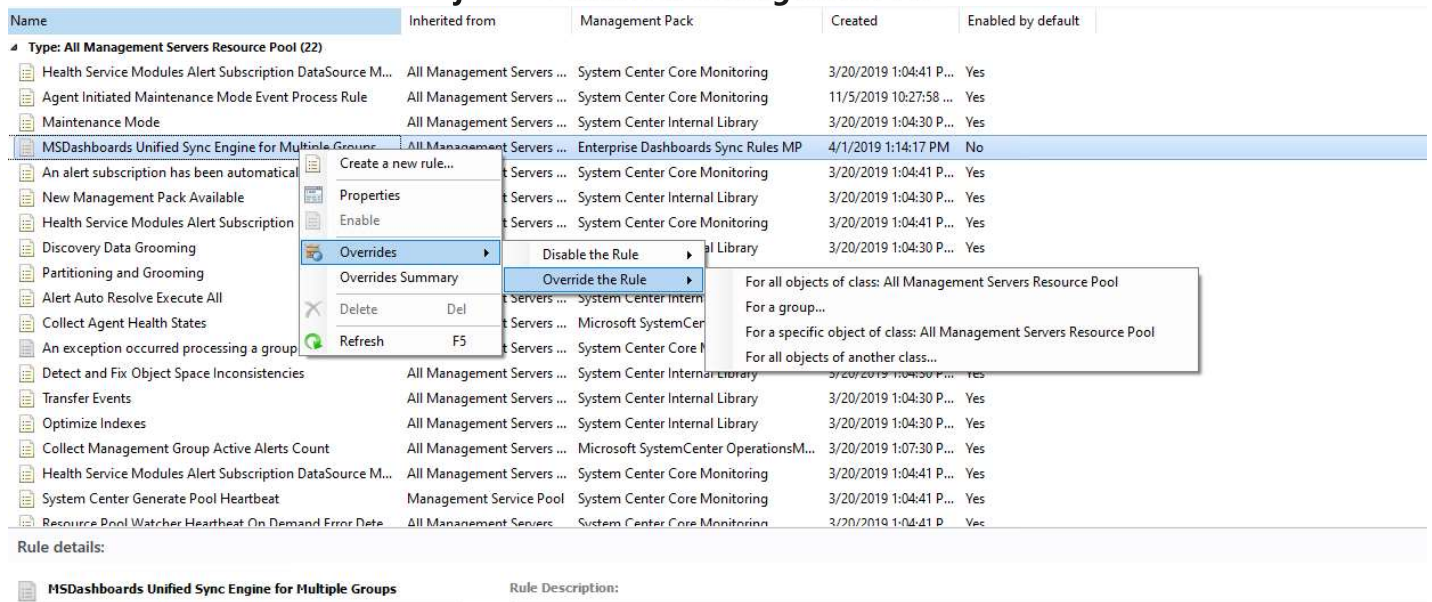
Maintenance Mode

Rule Description: System rule that updates maintenance mode data.

2. Change Scope to be **All Management Servers Resource Pool** and then click **Ok**



3. Right click on **MSDashboards Unified Sync Engine for Multiple Groups** and select **Overrides** --> **Override the Rule** --> **For All objects of class: All Management Servers Resource Pool**



4. In Override Rule properties, Ensure the following overrides enabled:

- Enabled** = True
- GroupList** includes "AD Dashboard Group"

c. **SQLServer** = <SQL Instance hosting EnterpriseDashboards Database>

Override Properties

Rule name:MSDashboards Unified Sync Engine for Multiple Groups

Category:Custom

Overrides target:Class: All Management Servers Resource Pool

Show Rule Properties...

Override-controlled parameters:

	Override	Parameter Name	Parameter Type	Default Value	Override Value	Effective Value	Change Status	Enforced
▶	<input checked="" type="checkbox"/>	Enabled	Boolean	False	True	True	[No change]	<input type="checkbox"/>
	<input type="checkbox"/>	GetAlerts	Boolean	True	True	True	[No change]	<input type="checkbox"/>
	<input type="checkbox"/>	GetMonitorTree	Boolean	False	False	False	[No change]	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	GroupList	String	Group 1;Gro...	Windows Dashboard Group AD Dashboard Group;OpsMgr Dashboard Gr...	Windows Das...	[No change]	<input type="checkbox"/>
	<input type="checkbox"/>	Interval Seconds	Integer	300	300	300	[No change]	<input type="checkbox"/>
	<input type="checkbox"/>	Logging	Boolean	False	False	False	[No change]	<input type="checkbox"/>
	<input type="checkbox"/>	Mode	String	Rule	Rule	Rule	[No change]	<input type="checkbox"/>
	<input type="checkbox"/>	SQLDBName	String	EnterpriseD...	EnterpriseDashboards	EnterpriseDas...	[No change]	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	SQL Server	String		DamatiSQL\SQMOM	DamatiSQL\S...	[No change]	<input type="checkbox"/>

Details:

Enabled

The custom override for this parameter is defined in 'Enterprise Dashboards - Overrides'.

The effective value is set:
- as a preferred value
- on the current target
- by the custom override in 'Enterprise Dashboards - Overrides'
Last modified at: 11/5/2016 4:15:22 AM

Description

Edit...

Management pack

Select destination management pack:
<Select Management Pack>

New...

Help

OKApplyCancel

5. Click on **Ok**

Step 3: Confirm Group populates information to EnterpriseDashboard Database

1. Using SQL Management Studio, Open EnterpriseDashboard Database and exand Tables.
2. Check if ADDashboardGroup_Statedata table is created.

3. Right click on the table and click on Select Top 1000 Rows. confirm results.

Object Explorer

connect

SQL Server 13.0.5292.0 - DAMATIMAN\omAdmin

Databases

System Databases

Database Snapshots

Enterprise Dashboards

Database Diagrams

Tables

System Tables

FileTables

External Tables

dbo.ADDashboardGroup_Alerts

dbo.ADDashboardGroup_Monitordata

dbo.ADDashboardGroup_Statedata

dbo.OpsMgrDashboardGroup_Alerts

dbo.OpsMgrDashboardGroup_Monitordata

dbo.OpsMgrDashboardGroup_Statedata

dbo.PKIDashboardGroup_Alerts

dbo.PKIDashboardGroup_Monitordata

dbo.PKIDashboardGroup_Statedata

dbo.SQLDashboardGroup_Alerts

dbo.SQLDashboardGroup_Monitordata

dbo.SQLDashboardGroup_Statedata

dbo.WindowsDashboardGroup_Alerts

dbo.WindowsDashboardGroup_Statedata

Views

External Resources

Synonyms

Programmability

Service Broker

Storage

Security

OperationsManager

OperationsManagerAC

OperationsManagerDW

ReportServer_PBI

ReportServer_PBIReport

ReportServer_PBIReportTempDB

ReportServer_PBITempDB

ReportServer_SCED

ReportServer_SCEDTempDB

SQLQuery2.sql - D:\MAN\omAdmin (2211)

SQLQuery1.sql - ...MAN\omAdmin (56)

***** Script for SelectTopNRows command from SSMS *****

SELECT TOP (1000) [ID]
 ,[Name]
 ,[Path]
 ,[Fullname]
 ,[Classname]
 ,[FinalClassname]
 ,[HealthState]
 ,[AvailabilityLastModified]
 ,[synctime]
FROM [EnterpriseDashboards].[dbo].[ADDashboardGroup_Statedata]

100 %

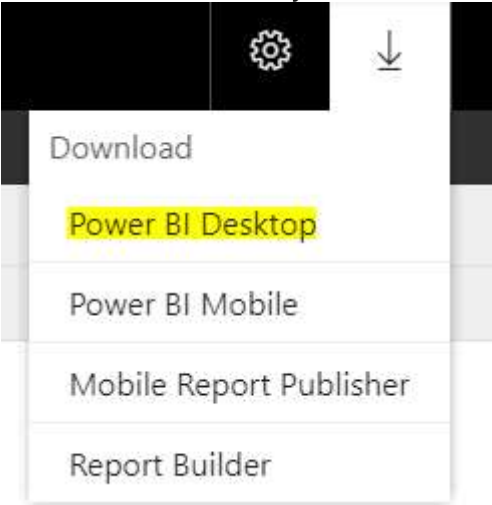
Results

Messages

ID	Name	Path	Fullname
1	f4d00824-bac6-e9e4-6f0c-15401aa14393	Microsoft.Windows.Server.10.0.AD.DomainControll...	DamatiAD2.DamatiMan.com:DAMATIAD2
2	498146b0-c7f2-a11d-6abf-17ace57064bb	DAMATIMAN\Damati-Azure-AD	DamatiMan.com
3	f3860ac7-8f24-731f-a894-292971098df8	Microsoft.Windows.Server.10.0.AD.DomainControll...	DamatiAD.DamatiMan.com:DAMATIAD
4	85fb640b-878e-6a6d-4cad-36c71ce22606	DAMATIMAN\DamatiAD	DamatiMan.com
5	53924e98-cd13-acbc-3385-3ab35dd13565	Microsoft.Windows.Server.10.0.AD.DomainControll...	DamatiAD.DamatiMan.com:DAMATIAD
6	b533e742-8a6c-5e25-661a-56765b71d393	Microsoft.Windows.Server.10.0.AD.DomainControll...	DamatiAD2.DamatiMan.com:DAMATIAD2
7	cd92acd-c2ee341a0-7584-73b04f9c90	Default-First-Site-Name	damatiman.com
8	6e6cddf1-b1e6-3763-96b1-947703ac047	damatiman.com	damatiman.com
9	2e99e65e-ba92-05b6-88a2-858831aad96d	Active Directory Topology Root	Active Directory Topology Root
10	9a7ad94b-af9f-c177-ebd6-8919e53ae543	damatiman.com	damatiman.com
11	9b68833b-0f9b-e757-a5d4-b7dc717e75cc	DAMATIAD	DamatiAD.DamatiMan.com
12	d226e6e6-8a35-8cf2-bc7e-be484e98b724	DEFAULTSITELINK	damatiman.com
13	a0858d40-6ad0-2624-871f-c40383e94d65	DAMATIMAN\DamatiAD2	DamatiMan.com
14	0bca54cf-3e26-7f1b-c75c-62c65bd296	DAMATIAD2	DamatiAD2.DamatiMan.com

Step 4: Import Dashboard Template File

Following steps need to be applied on your desktop or Report server. make sure you have Power BI desktop installed (RS Version). you can download it from Power BI Report Server if you have required permissions.



1. Download Active Directory Dashboard Power BI Template [Active Directory Domain Services.zip](#)
2. Open Template file

3. Insert required parameters then click Loadnotes

×

Windows Servers Dashboard

System Center Enterprise Dashbaords - Windows Server Core OS

SCED_Server ⓘ

SCED_DB ⓘ

OMDW_Server ⓘ

OMDW_DB ⓘ

Language

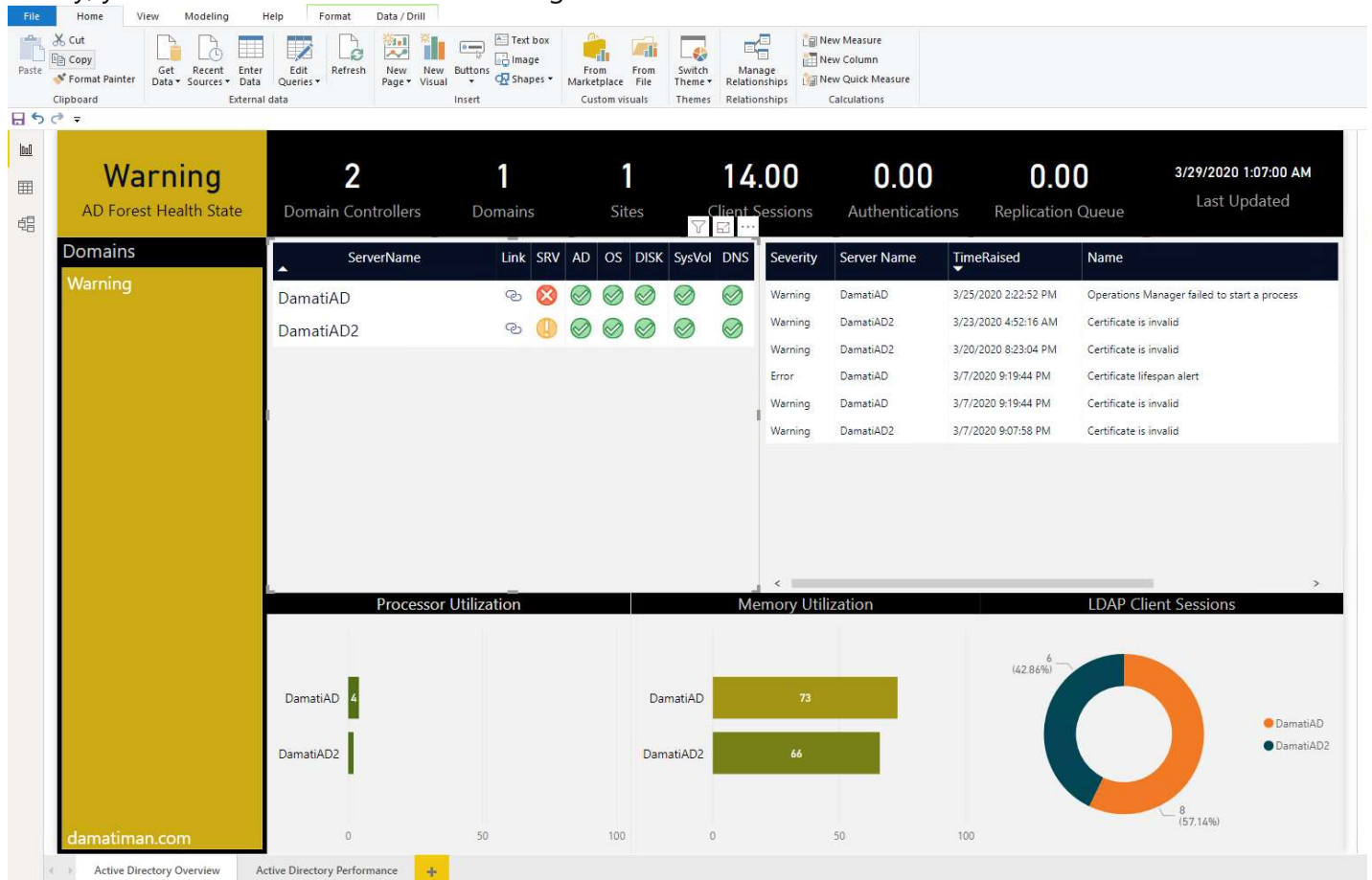
SCOM_WebConsole ⓘ

Load ▾

Cancel

4. Dashboard will start connecting to Operations Manager Databases and load required information to build visulizations

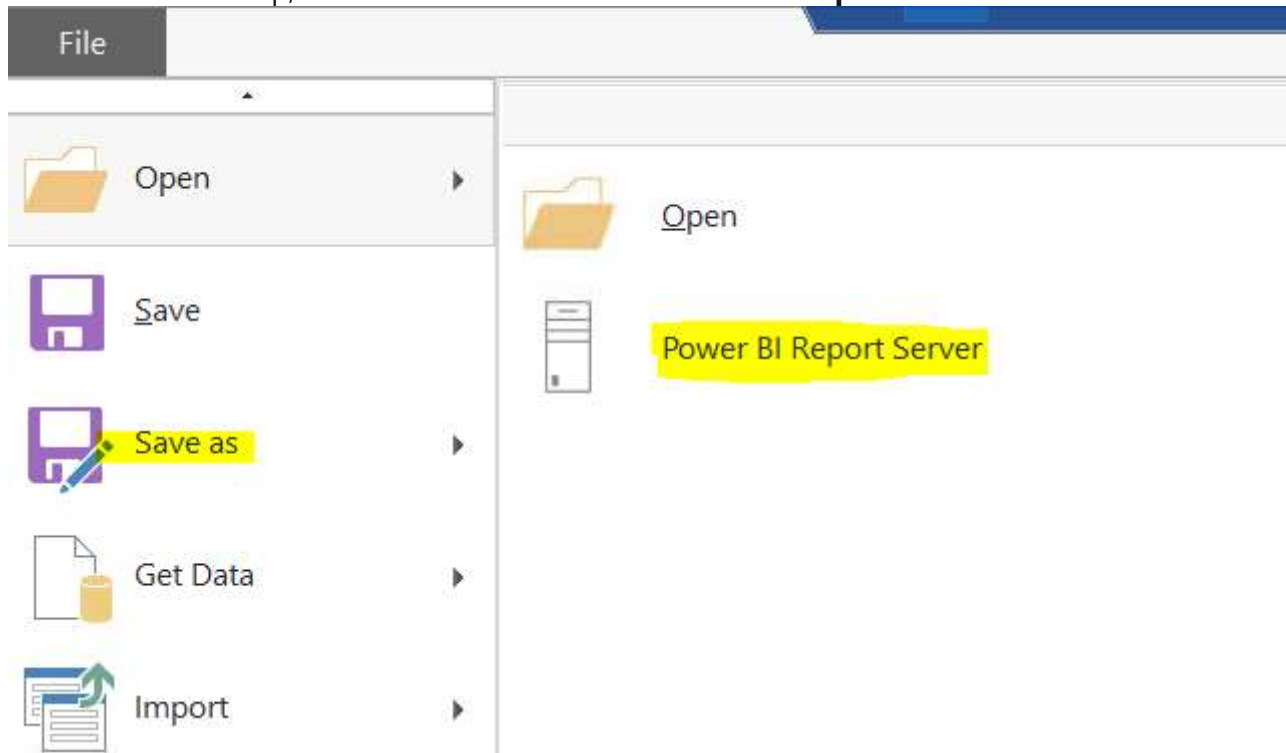
5. Finally, you will have the dashboard running



Step 5: Save Dashboard to Power BI Report Server

Once the dashboard is ready to be published, follow below steps.

1. On Power BI Desktop, select **File --> Save As --> Power BI Report Server**



2. Select or Type in Power BI Report Server Name and click **Ok**

×

Power BI Report Server Selection

Choose the report server you would like to open your report from. You can select from the recent report server list or enter a new report server address.

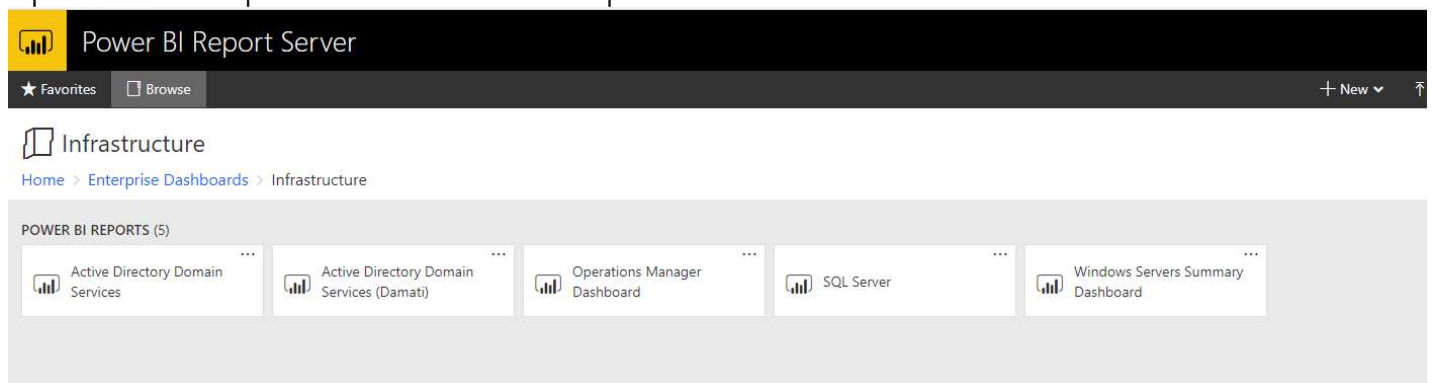
Recent report servers

New report server address (Example: http://reportserver/reports or https://reportserver/reports)

OK

Cancel

3. Open Power BI Report Server URL and Select published Dashboard

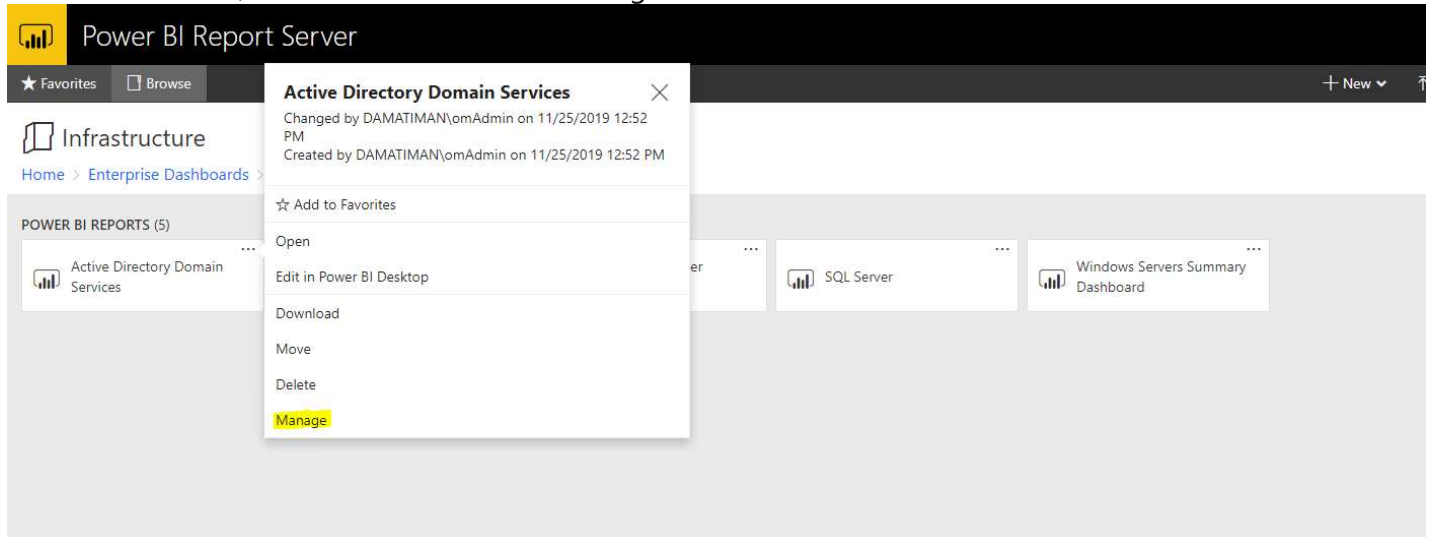


Step 6: Configure Data Source Settings

Data Sources does not have the real time information as it need to be configured after we published the dashboards. to do that, follow below steps:

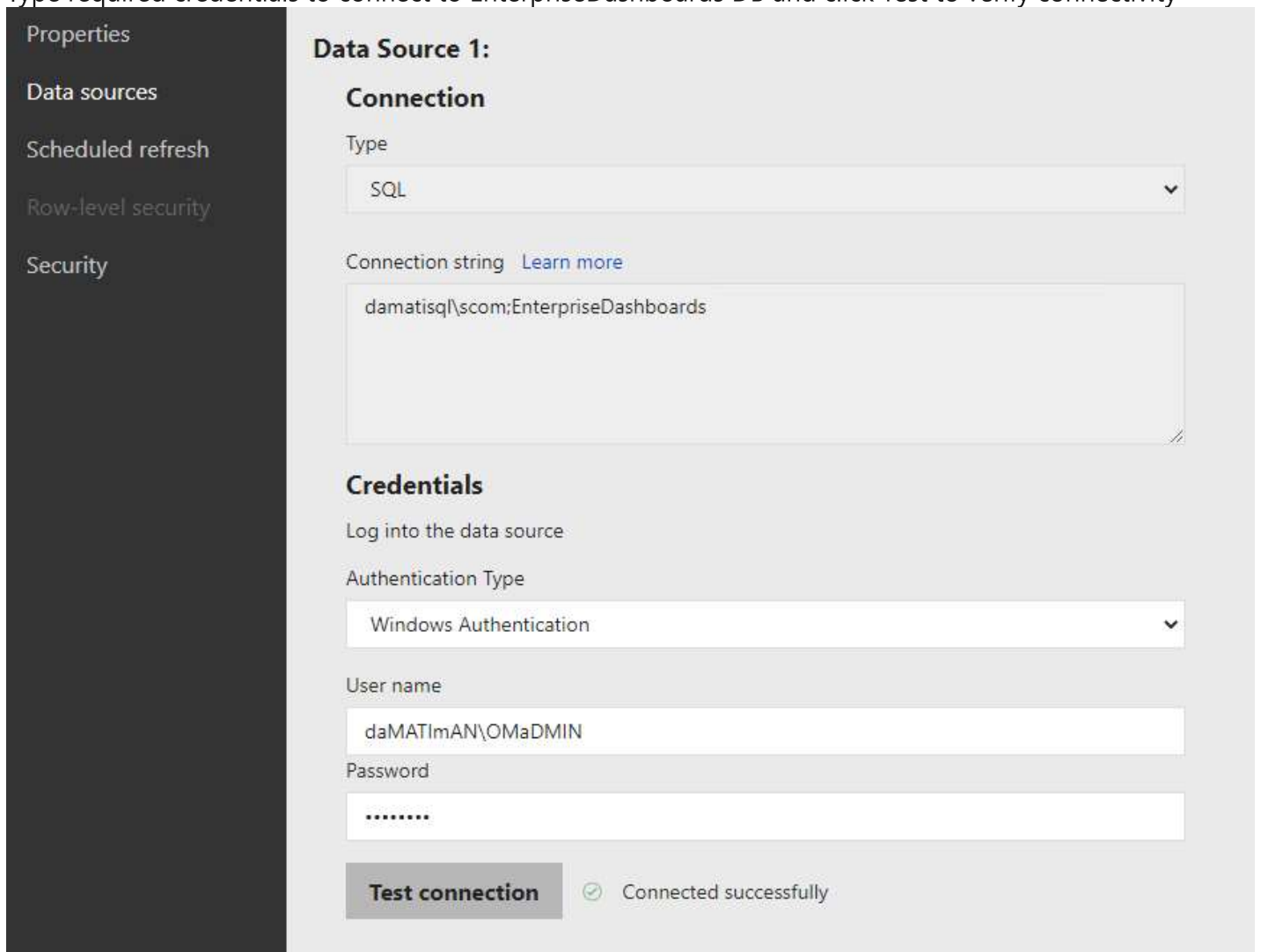
1. On Power BI Report Server Web URL, Browse to Dashboard file location [DON'T OPEN IT].

2. On the file corner, click on "... " and select Manage



3. In Manage Tab, Select Data Sources

4. Type required credentials to connect to EnterpriseDashboards DB and click Test to verify connectivity



5. scroll down and do the same for OperationsManagerDW Database.

Data Source 2:

Connection

Type: SQL

Connection string: [Learn more](#)
damatisql\scom;OperationsManagerDW

Credentials

Log into the data source

Authentication Type: Windows Authentication

User name: daMATImAN\OMaDMIN

Password:

Test connection Connected successfully

Save **Cancel**

6. Confirm Test Connection is successful and click **Save**