Enterprise Vault 12 Whitepaper

Best Practices for Enhanced Accelerator Reporting

This whitepaper describes the Enterprise Vault 12 and 12.1 Enhanced Reporting features and shows customers, partners, and service providers how to create their own Discovery Accelerator and Compliance Accelerator custom reports and dashboards.

If you have any feedback or questions about this document please email them to ii-tfe@veritas.com stating the document title.

Document Control

Contributors

Who	Contribution
Walter Wintermute	Author

Revision History

Version	Date	Changes
1.0	June 2018	

Related Documents

Document Title	Version / Date

Table of Contents

Terminology

Term	Description
OData	Open Data Protocol
XML	eXtensible Markup Language
JSON	Java Script Object Notation
SSRS	SQL Server Reporting Services
Power Query	Excel Add-in used for accessing data from different sources, including OData
CA	Compliance Accelerator
DA	Discovery Accelerator
Dataset	A collection of data, normally associated with the contents of a database table
FINRA	Financial Industry Regulatory Authority, Inc.
SEC	Securities and Exchange Commission

Introduction

The Enterprise Vault 12 Enhanced Reporting feature allows Discovery Accelerator and Compliance Accelerator administrators the ability to create custom reports easily. Reporting requirements tend to vary widely, depending on the legal and compliance regulations. Enhanced Reporting addresses this need, allowing administrators to create their own custom reports using the OData (Open Data) protocol that exposes information from Discovery Accelerator and Compliance Accelerator datasets.

Discovery Accelerator (DA) is an electronic discovery and review system that integrates with Enterprise Vault and allows authorized users the ability to search, retrieve, preserve, review, mark, and export emails, and other electronic items in a cost-effective manner. Compliance Accelerator (CA) allows organizations to perform cost-effective supervisory review of their employees' communications to ensure compliance with regulatory bodies, such as FINRA and the SEC. Many Enterprise Vault customers may own one or both of these applications, depending on their legal and compliance requirements.

OData is an open data access protocol for the web that provides a uniform way to structure, query, and manipulate data. With OData, you access datasets by simply typing in a URL path. OData supports both XML and JSON (Java Script Object Notation) formats for storing and exchanging data. Although the OData protocol permits create, read, update and delete operations, Enhanced Reporting just allows the ability to read information from DA and CA datasets.

OData provides a simple way to allow any OData client to access information exposed by any OData data source. This whitepaper will show how to create custom reports using two OData clients, Excel Power Query and Microsoft SQL Reporting Services.

Benefits of Enhanced Reporting

- Prior versions of the Accelerator reporting framework used Microsoft SQL Server Reporting Services (SSRS). It was difficult to customize reports using this framework because details of the underlying Enterprise Vault database schema were unpublished and often changed from one release to another.
- Enhanced reporting addresses this limitation by exposing reporting data as an OData service, which allows administrators to create customized reports and dashboards easily.
- Enhanced reporting exposes CA and DA datasets and allows interoperability from any OData compatible reporting tool.

Architecture Overview

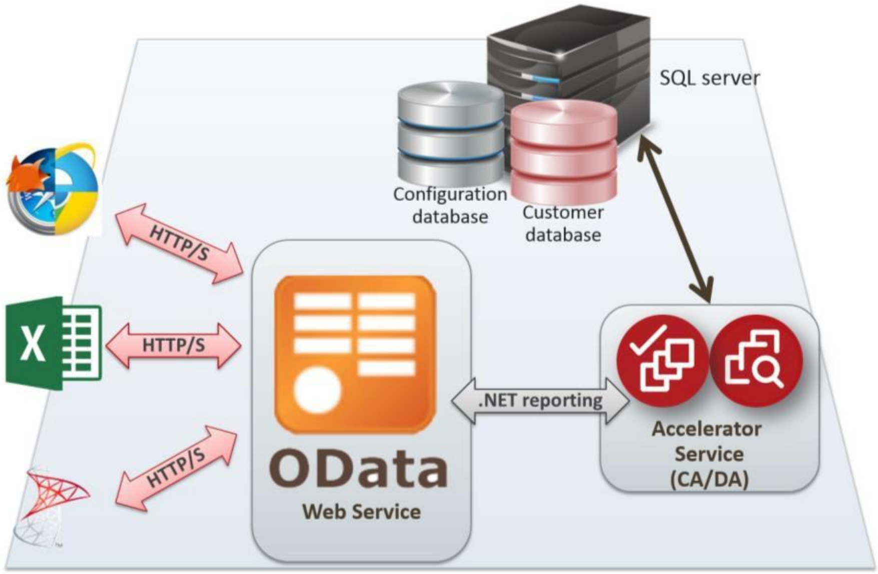


Figure 1 – Enhanced Reporting Architecture

Enterprise Vault 12 Enhanced Reporting includes the following components.

An OData client: This can be any OData aware client, including:

- Web browser
- Excel Power Query
- SSRS client.

The OData client communicates over http(s) protocol to perform the OData queries.

An OData web service: Internet Information Server (IIS) hosts the OData web service under the default, DA and CA web site. The web service runs under an Application pool identity. The OData web service uses .net remoting for communication with the Accelerator service. It performs the following functions:

Exposes and allows retrieval of information from specific datasets.

- Validates input parameters
- Compiles information received from the Accelerator service in the form of Data Tables.
- Performs error handling and propagates the appropriate messages to the OData client.

Installation and Configuration

The installation of Discovery Accelerator or Compliance Accelerator includes a Reporting web service. Uninstalling DA or CA will remove the CAReporting and DAReporting web server from IIS and the corresponding folders and files.

Install Path	
CA	<AcceleratorInstallPath>\CAReporting
DA	<AcceleratorInstallPath>\DAReporting

Table 1 – Installation Location Folder

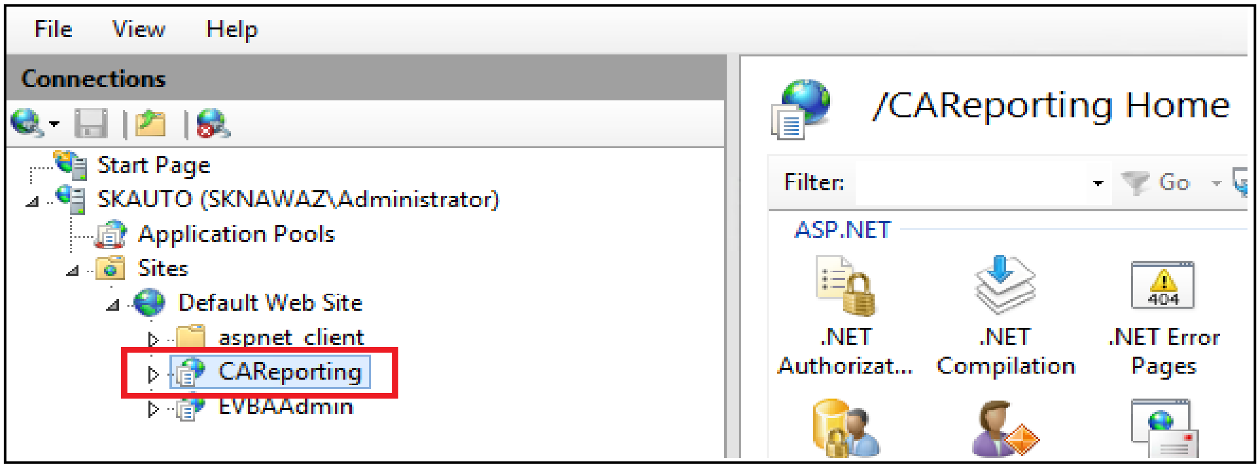


Figure 2 – CAReporting Website in IIS

Configuring SSL for the DA and CA Web Reporting Service

To configure https for the CAReporting and DAReporting web service URL, you need to configure SSL on IIS.

Steps to configure:

1. Create an SSL certificate with a hostname or Fully Qualified Domain Name (FQDN) of the CA or DA server. (For details, see How to create and install an SSL certificate: https://support.microsoft.com/en-us/kb/228991
2. Import the SSL certificate through MMC (refer to the article above for details)
3. Install and bind the SSL certificate to the webserver.

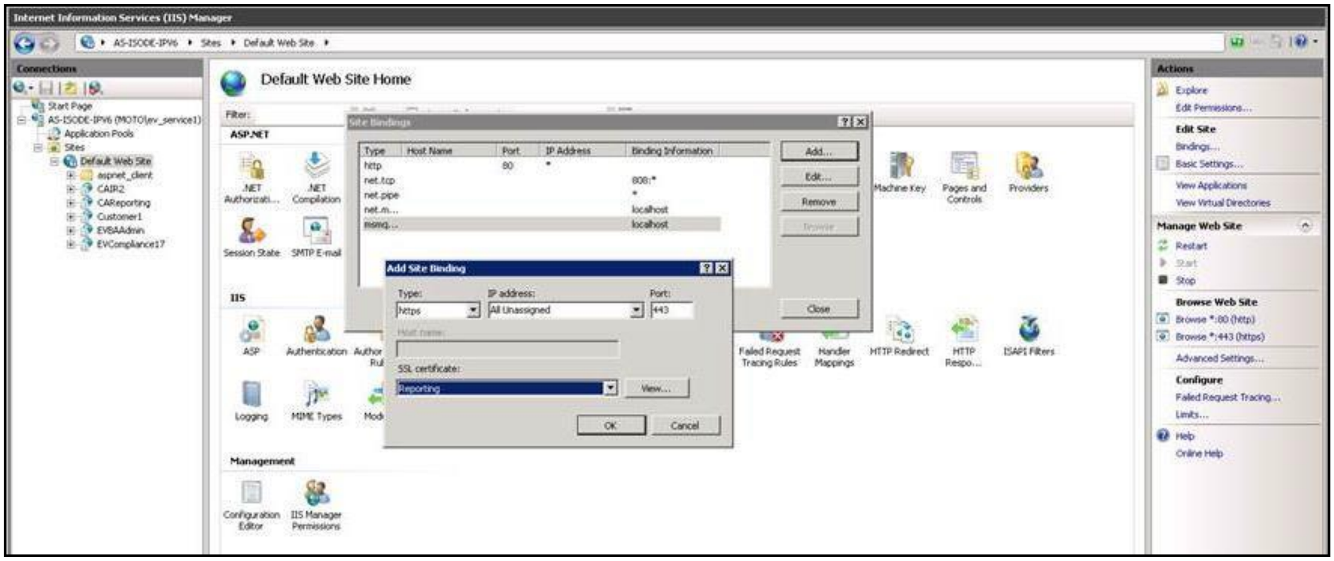


Figure 3 - Install and bind SSL certificate

Set SSL setting at CA or DA Reporting web directory.

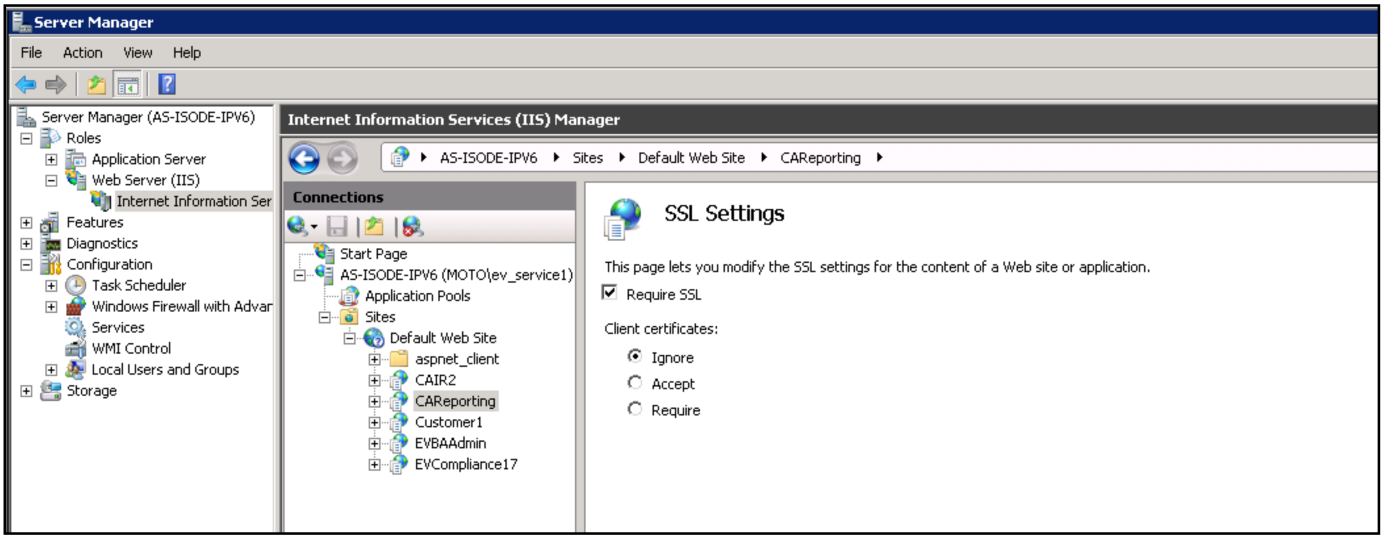


Figure 4 - SSL setting

Permissions

In order to fetch or query information from the datasets, the “View Reports” permission is required on a DA Case or a CA Department. The DA Case Owner and the CA Department Owner have this permission assigned by default.

Creating a Role to View Reports

To create a Case or Department role with View Reports permission in either CA or DA, perform the following steps:

1. Select the **Application** tab and then click **Role**
2. Select **New Role.** Provide a Role Name e.g. "**Reporting**"
3. Select Permission "**View Reports**" and click "**Save**"

Note: The process for creating a new role in CA and DA is identical. The only difference is within CA, the Scope field would indicate Department, instead of Case.

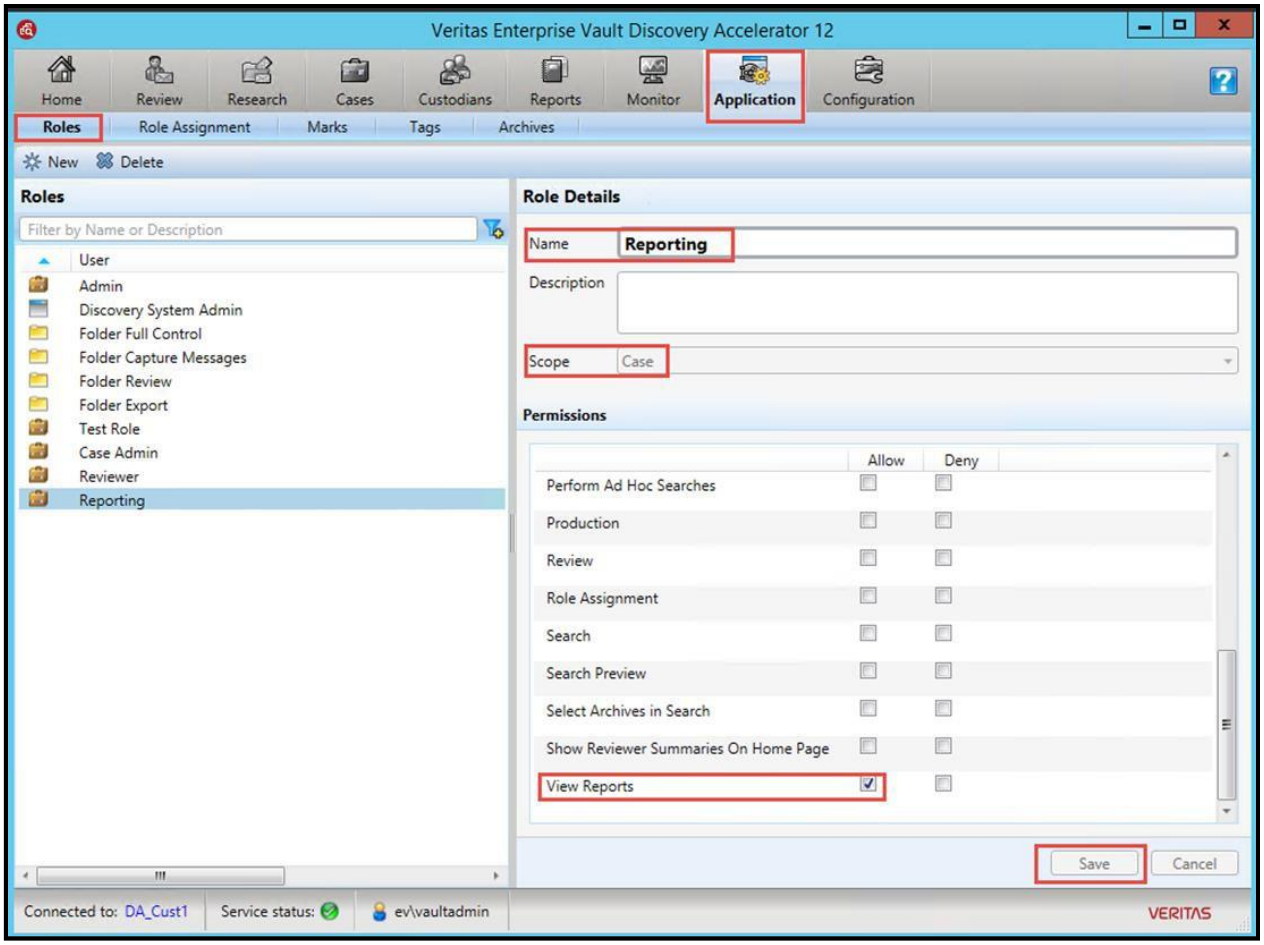


Figure 5 – Creating a Role with View Reports Permissions

Assigning a Role in DA

To assign the Reporting Role to a User within DA, perform the following steps:

1. Select **Cases**
2. Select a specific Case and click "**Role Assignment**"
3. Click **Add User** to select the user and click **OK**.
4. Select the "**Reporting**" role you previously created and click **OK.**
5. Click **Save**

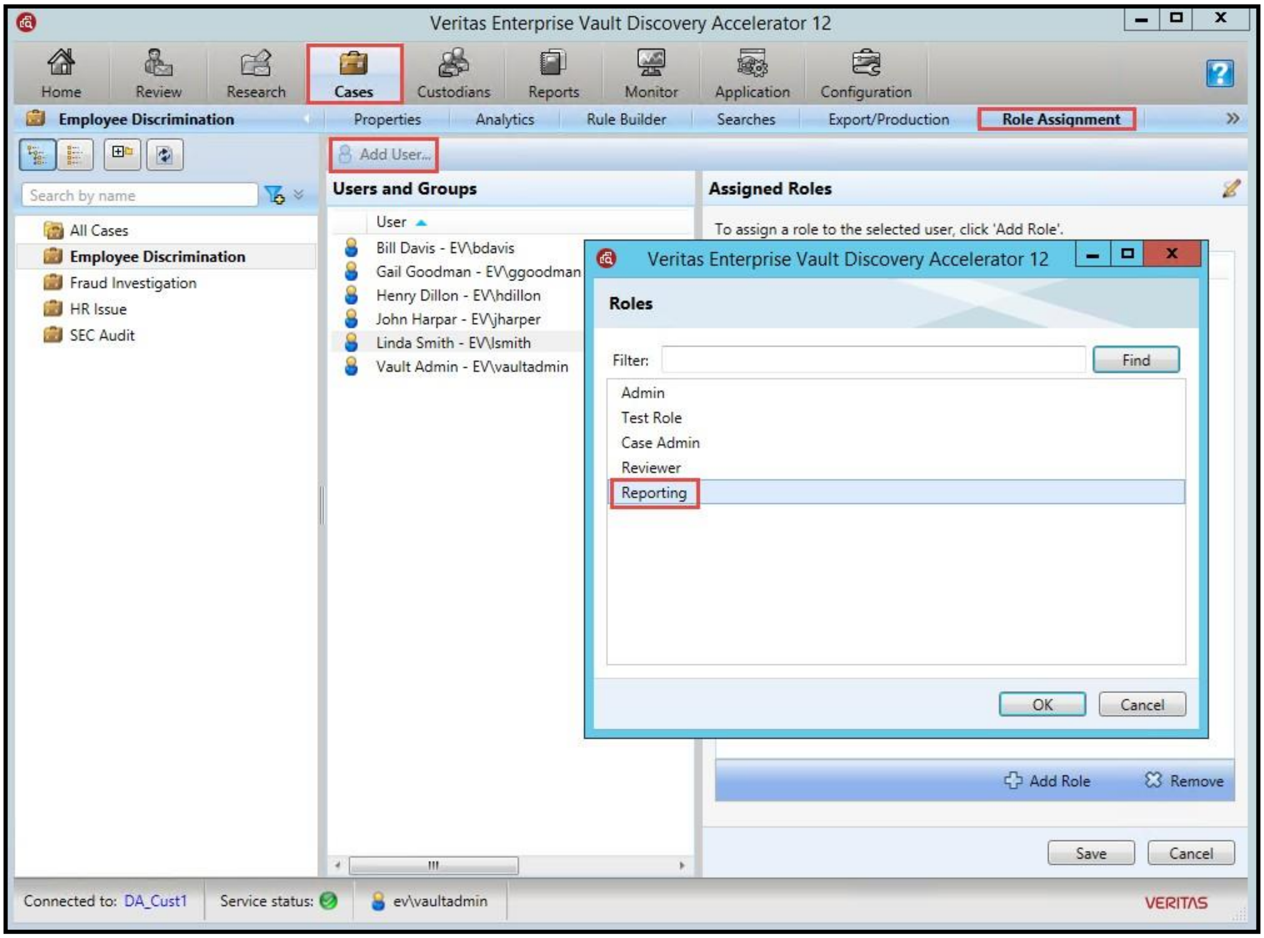


Figure 6 – Assigning the Reporting role to a DA User

Assigning a Role in CA

To assign the Reporting Role to a User within CA, perform the following steps:

6. Select **Departments**
7. Select a specific Department and click "**Role Assignment**"
8. Click **Add User** to select the user and click **OK**.
9. Select the "**Reporting**" role you previously created and click **OK**.
10. Click **Save**

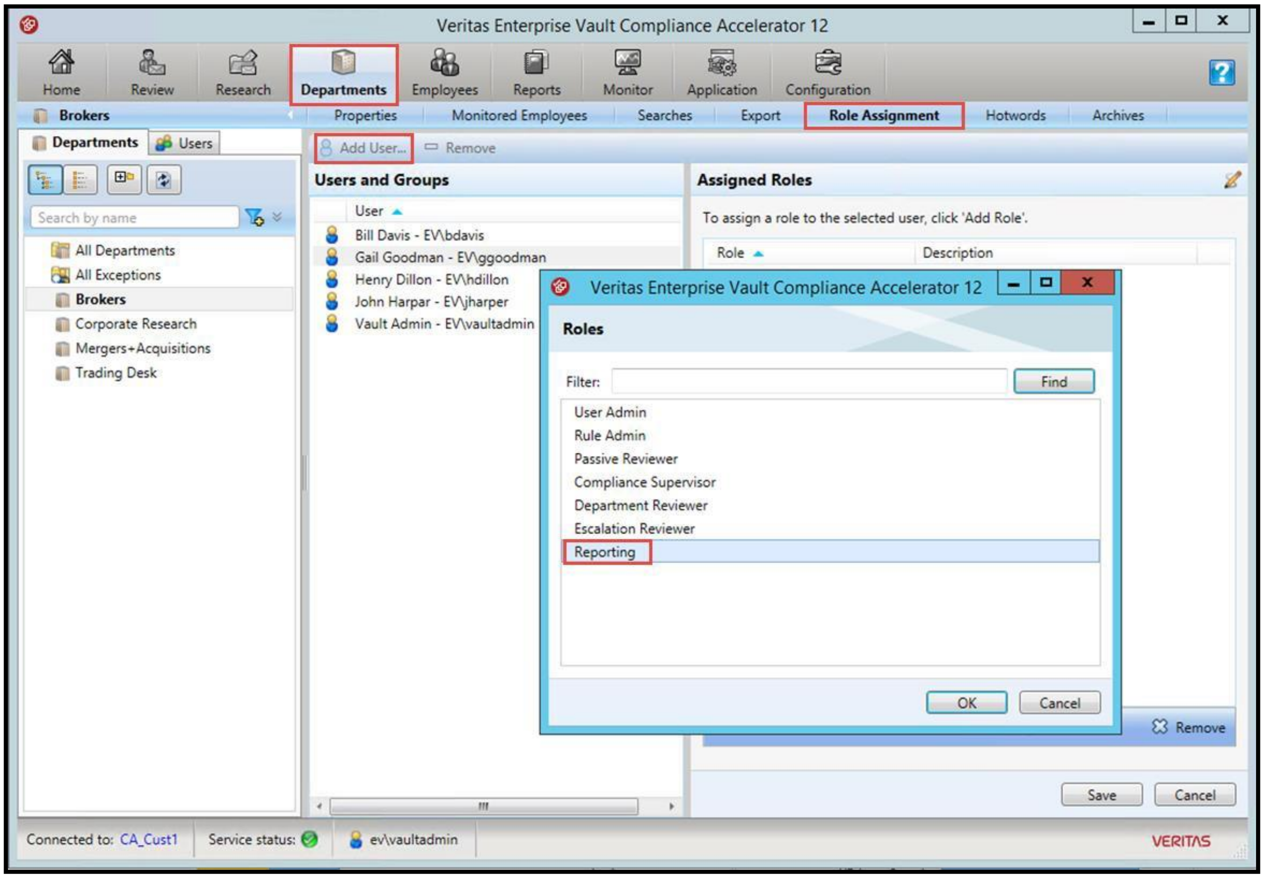


Figure 7 – Assigning the Reporting role to a CA User

Discovery Accelerator and Compliance Accelerator Datasets

Listed below are the 32 DA and CA datasets. Enterprise Vault 12.1 adds five new datasets. These are identified at the bottom of the table with an ***** beside their name. To learn more about the new datasets in EV12.1, please refer to the section in this white paper entitled, [Understanding the 12.1 CA and DA Datasets] and [Appendix B: 12.1 Datasets]. EV12.1 also introduced a **totalCount** parameter. This parameter provides a count of all records within the dataset and allows consumers of OData reports to adequately provision for the data requested. We recommend limiting a dataset request to about 100,000 records. Datasets supporting the **totalCount** parameter have a # beside their name in **Table 2**.

Discovery Accelerator	Compliance Accelerator
Cases	ActionStatusDetail
CaseHistory	Customers
Customers	Departments
ExportRunDuplicates #	EscalationHistory
LegalHoldArchives	ReviewerActivityByDepartment
LegalHolds	ReviewerActivityDetail
LegalHoldSearches	ReviewActivitySummary
SearchDetails	ReviewerActivityItemDetailed #
Searches	ReviewerActivityByReviewer
ProductionRun #	ReviewerActivityByDepartmentDetailed #
ProductionRunDuplicates #	DifferentialSamplingSummaryByDepartment
Productions	ReviewerNotes
UserRolesAndPermissions	QuestionedItemsByDepartment #
SearchCriteria *	ItemAgingByDepartment
ItemDetails # *	SamplingSummary *
	GuaranteedSamplingSummary *
	StatisticalSamplingSummary *

Table 2 – DA and CA Datasets - * = additional 12.1 datasets. # = datasets supporting the totalCount parameter

Figure 8 shows the total count for the ItemDetails dataset using the totalCount=true parameter. The syntax is

http://DAServername/DAReporting/OData/ItemDetails(customerID=1,totalCount=true)


```
{
  "odata.metadata":"http://serv2/DAReporting/OData/$metadata#ItemDetails/EnterpriseVault.Reporting.DiscoveryAccelerator.ItemCount","value":[
    {
      "odata.type":"EnterpriseVault.Reporting.DiscoveryAccelerator.ItemCount","TotalCount":"2406","TimeStamp":"2016-09-23T17:27:44.853"
    }
  ]
}
```


Figure 8 – ItemsDetails dataset with the totalCount=true parameter

NextLink

There is also enhanced support for pagination with the EV 12.1 CA and DA datasets. Business Intelligence tools can now return the entire dataset, as opposed to having to use the startFrom and recordsPerFetch parameters, which were required, prior to EV12.1, and required manually constructing the URL to fetch the next set of data.

Viewing the Datasets

To view the Discovery Accelerator or Compliance Accelerator dataset names from a web browser, simply type in the following URLs:

http://*DAservername*/DAReporting/OData

http://*CAservername*/CAReporting/OData.

If prompted, click **Open** and select a web browser, (e.g. Internet Explorer) to view the file.

```
<?xml version="1.0" encoding="utf-8"?>
<service xml:base="http://da/DAReporting/OData" xmlns="http://www.w3.org/2007/app"
  <workspace>
    <atom:title type="text">Default</atom:title>
    <collection href="CaseHistory">
      <atom:title type="text">CaseHistory</atom:title>
    </collection>
    <collection href="Cases">
      <atom:title type="text">Cases</atom:title>
    </collection>
    <collection href="Customers">
      <atom:title type="text">Customers</atom:title>
    </collection>
```

Figure 9 – A partial view the DA Datasets from a Web Browser

Dataset Fields

It is helpful to review and become familiar with the dataset fields within each dataset. This will help you determine what fields and datasets you would like to include within a specific report. A description of each dataset field is included in Appendix A and Appendix B of this document. To see the associated fields for each DA or CA Dataset enter the following:

http://*DAservername*/DAReporting/OData/$metadata

http://*CAservername*/CAReporting/OData/$metadata.

```
  <?xml version="1.0" encoding="UTF-8"?>
- <edmx:Edmx xmlns:edmx="http://schemas.microsoft.com/ado/2007/06/edmx" Version="1.0">
  - <edmx:DataServices xmlns:m="http://schemas.microsoft.com/ado/2007/08/dataservices/metadata"
    m:MaxDataServiceVersion="3.0" m:DataServiceVersion="3.0">
    - <Schema xmlns="http://schemas.microsoft.com/ado/2009/11/edm"
      Namespace="EnterpriseVault.Reporting.DiscoveryAccelerator">
      - <EntityType Name="CaseHistory">
          <Property Name="CustomerID" Nullable="false" Type="Edm.Int32"/>
          <Property Name="CaseID" Nullable="false" Type="Edm.Int32"/>
          <Property Name="CaseName" Type="Edm.String"/>
          <Property Name="TotalItemsInCase" Nullable="false" Type="Edm.Int32"/>
          <Property Name="ItemsProduced" Nullable="false" Type="Edm.Int32"/>
          <Property Name="CreatedDate" Nullable="false" Type="Edm.DateTime"/>
          <Property Name="LegalHoldStatus" Type="Edm.String"/>
          <Property Name="ItemsUnReviewed" Nullable="false" Type="Edm.Int32"/>
          <Property Name="ItemsReviewed" Nullable="false" Type="Edm.Int32"/>
          <Property Name="ItemsQuestioned" Nullable="false" Type="Edm.Int32"/>
          <Property Name="ItemsPending" Nullable="false" Type="Edm.Int32"/>
          <Property Name="ItemsAssigned" Nullable="false" Type="Edm.Int32"/>
          <Property Name="ItemsUnassigned" Nullable="false" Type="Edm.Int32"/>
        </EntityType>
```


Figure 10 – A partial view of the DA Dataset Fields

Accelerator Databases

Discovery Accelerator and Compliance Accelerator implementations include a configuration database and customer database(s). The configuration database contains information about the customer databases created. There is only one configuration database per DA/CA installation. However, DA and CA can contain one or more customer databases.

The Discovery Accelerator customer database(s) include details of cases, user roles, search results, and more. For Compliance Accelerator, the customer database(s) store details of departments, user roles, reviewer history, etc. In order to read the DA and CA datasets for information, a customerID is required.

Determining the customerID

If the customerID is unknown, the following commands for DA and CA provide a list of Customer Database Names and their corresponding customerID.

http://<*DAservername*>/DAReporting/OData/Customers

http://<*CAservername*>/CAReporting/OData/Customers

The table results below list two customer database names, DA_Cust1 and DA_Cust2. If we want to query the datasets for DA_Cust1, we would use a customerID value of 2. ***The customerID is mandatory and must be included, when querying the remaining datasets.***

CustomerID	CustomerName	DirectoryDNS	SQLServer	Database
2	DA_Cust1	evserver1	SQL-AA-EVGroupL	DA_Cust1
3	DA_Cust2	evserver1	SQL-AA-EVGroupL	DA_Cust2

Table 3 – Customers Dataset showing corresponding customerID

Accessing the datasets via OData

OData Syntax

The OData URL path consists of:

- The service root
- A resource path
- Query options

In **Table 4**, Departments refers to the dataset queried. The dataset is in a CA customer database with a customerID value of 1. The query option of **?$top=2** indicates that we will return the top 2 records within the Departments dataset. Appendix B of this document details additional query options.

Service Root	Resource Path	Query Options
http://<*CAServerName*>/CAReporting/OData	/Departments(customerID=1)	?$top=2

Table 4 – OData Path

OData Query Examples

Listed below are several OData Query examples.

Discovery Accelerator Examples	Description
http://*DAservername*/DAReporting/OData/CaseHistory (customerID=1,caseID=5)	Returns case history details of a case with an ID of 5, associated with a customer database ID of 1.
http://*DAservername*/DAReporting/OData/LegalHolds (customerID=1)	Returns a summary report of legal holds associated with a customer database ID of 1.
http://*DAservername*/DAReporting/OData/Searches (customerID=1,caseID=5)	Returns a summary of searches performed in case 5, within customer database 1.

Table 5 – DA OData Examples

Compliance Accelerator Examples	Description
http://CAservername/CAReporting/OData/Customers (customerID=2)	To retrieve information for the customer with an ID of 2
http://CAservername/CAReporting/OData/Departments (customerID=2,departmentId=5)	To retrieve values from department 5.
http://CAservername/CAReporting/OData /ReviewActivitySummary(customerID=2,departmentID=8 ,dateFrom=2015-01-01,dateTo=2015-12-25)	To report on reviewer activity during a specific time frame

Table 6 – CA OData Examples

startFrom and recordsPerFetch

The startFrom and recordsPerFetch parameters are optional, but return records in batches. The Default value is 100,000. If the size of the records is more than 100,000, the query will fail to fetch the additional records. Listed below is an example using the startFrom and recordsPerFetch parameters to return 350,000 records from a production run. To return all 350,000 records you will need to run multiple queries, similar to the example below:

http://DA*ServerName*/DAReporting/OData/ProductionRun(customerID=6,caseID=6)
The first query will return the first 100,000 records

http://DA*ServerName*/DAReporting/OData/ProductionRun(customerID=6,caseID=6,startFrom=100001,recordsPerFetch=100000)
This second query will return the records, 100,001-200,000
http://DA*ServerName*/DAReporting/OData/ProductionRun(customerID=6,caseID=6,startFrom=200001,recordsPerFetch=100000)
The third query will return the records, 200,001-300,000
http://DA*ServerName*/DAReporting/OData/ProductionRun(customerID=6,caseID=6,startFrom=300001,recordsPerFetch=100000)
The final query will return the records, 300,001-350,000

From the EV12.1 release, an Odata.nextLink property set in the result set will fetch the next batch of items, so that running multiple queries against a large record set will no longer be required.

For additional examples and use cases of OData Queries, please refer to the Discovery Accelerator and Compliance Accelerator product documentation and Appendix B of this document.

This white paper will now take you through several different examples of creating custom reports and dashboards using Microsoft Excel and Microsoft SQL Server Reporting Services.

Microsoft Excel Power Query

We will begin with examples using Microsoft Excel. Examples in this document use Microsoft Excel 2013. In order to access Enterprise Vault datasets using OData, you will need to install the free, Microsoft Power Query add-in. Power Query allows you to query and retrieve data across a number of different data sources, including OData, directly from within Excel. You can download the add-in from Microsoft via the following URL: https://www.microsoft.com/en-us/download/details.aspx?id=39379

Microsoft Excel Power Pivot

It is also useful to install the Microsoft PowerPivot Add-in for Excel.

To do so, follow the instructions below (the instructions assume that you are using Excel 2013):

1. Within Excel select the **File** tab and choose **Options**.
2. Choose **Add-ins**
3. In the **Manage** list, choose **COM add-ins** and select **Go**
4. Select **Microsoft Office PowerPivot for Excel 2013** and click **OK**.

Once you install the PowerQuery and PowerPivot add-ins, you will see these menu options within Excel.

Figure 11 – Add-ins

Prior to creating our custom reporting examples, open a blank workbook within Excel right-click and rename the **Sheet1** Worksheet you have open to **DA Dashboard**. Click the plus sign in the bottom, left-hand corner of the screen to create the **Sheet2** Worksheet. Right-click and rename to **CA Dashboard**. Click on the **DA Dashboard** Worksheet, as this is where we will begin.

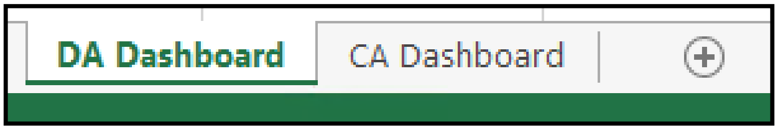


Figure 12 – Worksheets

Creating Enhanced Reports

Accessing OData Datasets from Excel

Highlight the **Power Query** tab**.** Select **From Other Sources/From OData Feed**

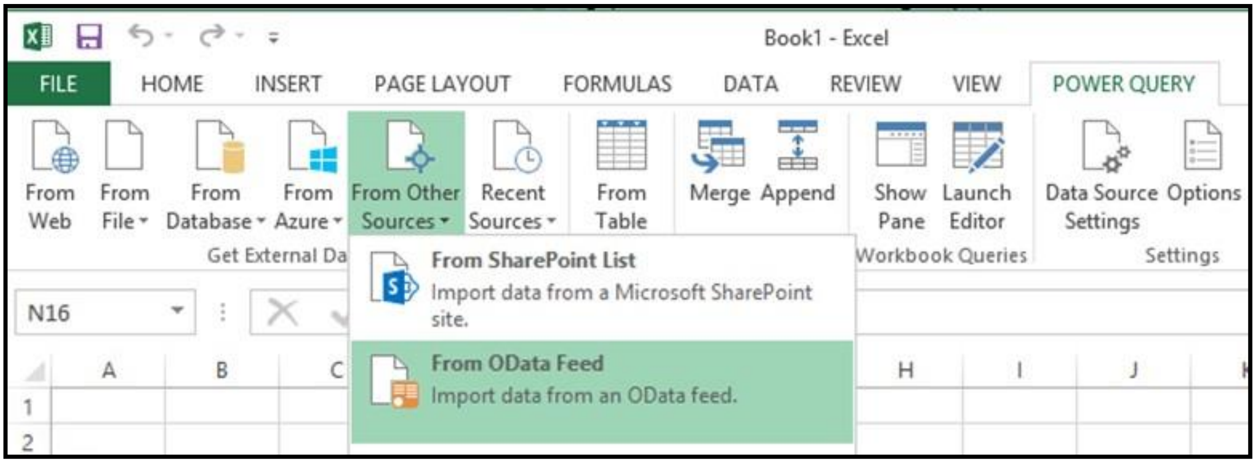


Figure 13 – OData Feed

Type in: http://*<DAservername>*/DAReporting/OData or http://*<CAservername>*/CAReporting/OData, depending on whether you want to access the DA or CA datasets. In this example, we will connect to DA.

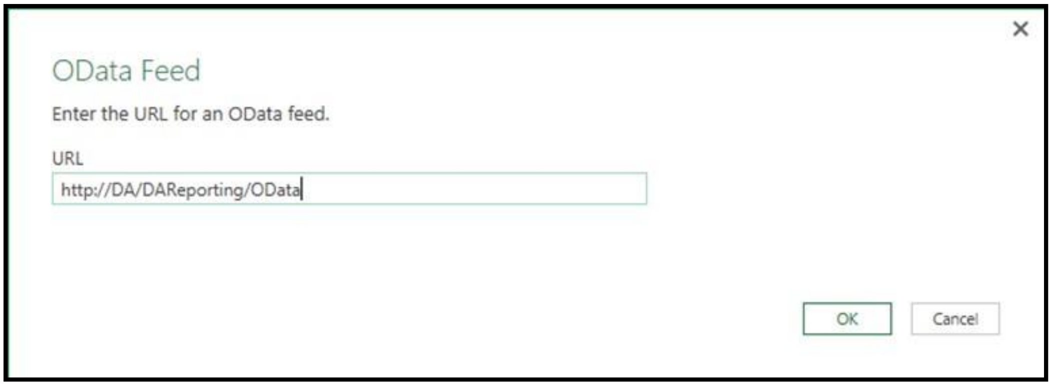


Figure 14 – OData URL

The first time you type in this command within Excel, you may see the following screen displayed.

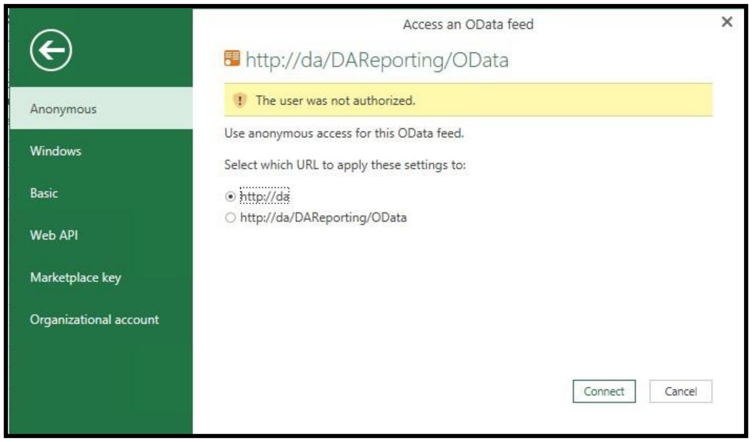


Figure 15 – Unauthorized User

Click **Windows** and select the credential options you would like to use (In this example, select **Use my current credentials**) and click **Connect**.

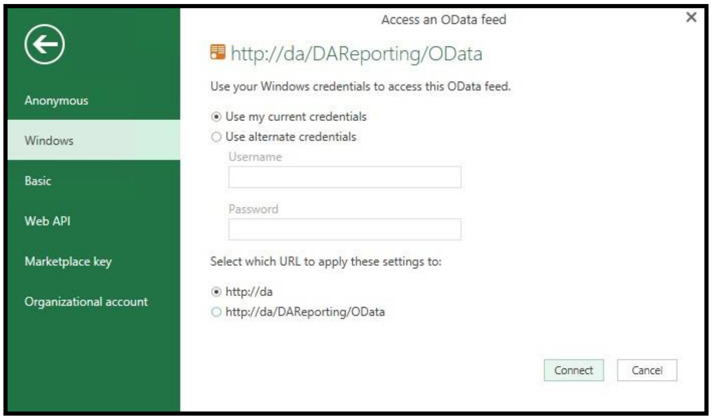


Figure 16 – Windows Credentials

Once you connect, you will see a listing of datasets. In this case, we have chosen to query Discovery Accelerator. If you highlight the **Customers** dataset, you will see a listing of the customer database names and corresponding customerID for each database.

The customerID is important, as it is a ***mandatory parameter*** for accessing the other datasets. In the illustration below, Customer Database **DA_Cust1** has a customerID value of **2**. We will use the customerID value of 2 when querying the datasets contained within the DA_Cust1 database.

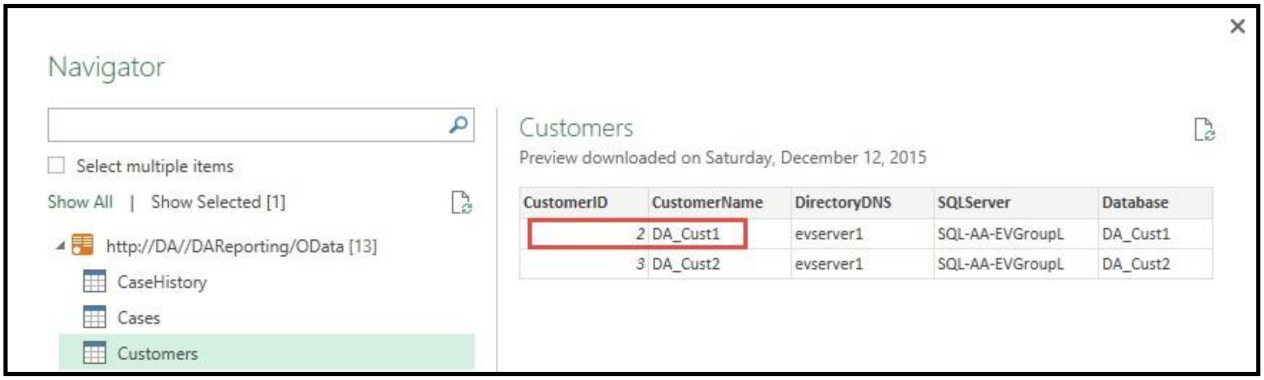


Figure 17 – Customers Dataset

If you select another dataset in this pane, you will receive a **(400) Bad Request (Invalid request format)** error. This is normal. It is because the remaining datasets require a customerID number in order to access the data within them.

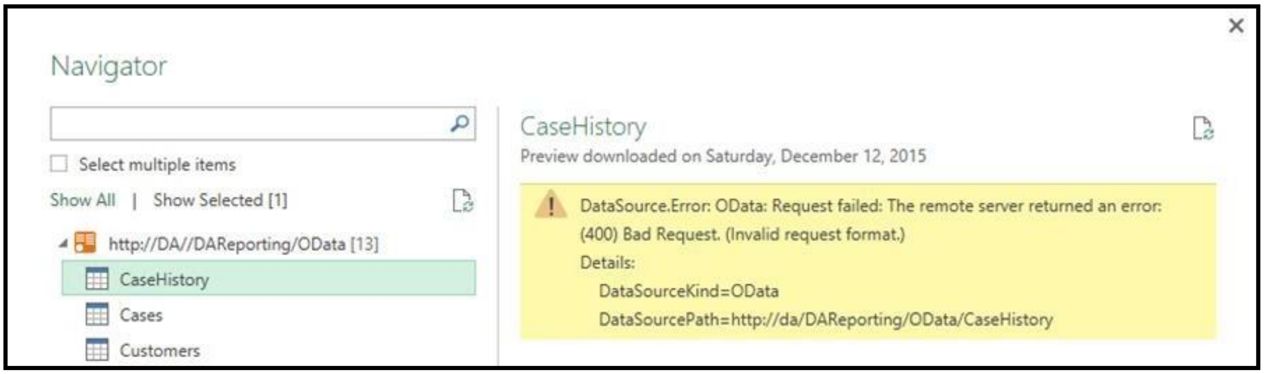


Figure 18 – (400) Bad Request Error

Now that we have the customerID number, click **Cancel** to exit out of this screen and perform a new query.

Creating a Discovery Accelerator Dashboard

Adding a CaseHistory PivotChart&PivotTable

Highlight the **Power Query** Tab. Select **From Other Sources/From OData Feed**.

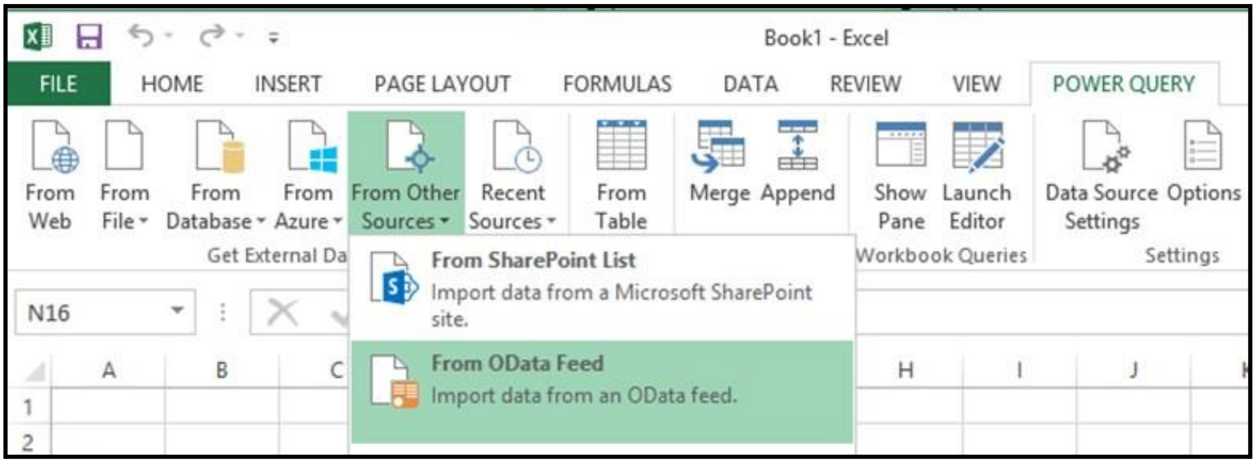


Figure 19 – OData Feed

In this example, type in the URL [http://*DAServername*/DAReporting/OData/CaseHistory(customerID=X)](http://DAServername/DAReporting/OData/CaseHistory(customerID=X)) to read the Discovery Accelerator CaseHistory dataset associated with the DA customer database. Replace **X** with your customerID. CaseHistory includes information such as the total number of items in a case, the total number of items assigned or not assigned, how many items reviewers have reviewed or not reviewed.

Figure 20 – URL

Click **OK**.

Rename the query under **Query Settings** from **Query1** to something a more descriptive (e.g. CaseHistory).

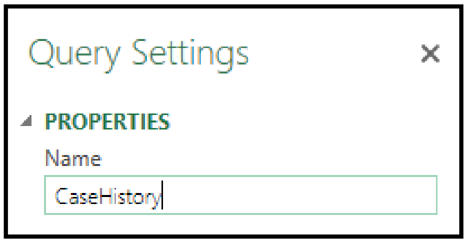


Figure 21 – Enter Query Name

Ctrl-Click to select columns that are not required for the custom report and select **Remove Columns/Remove Columns**.

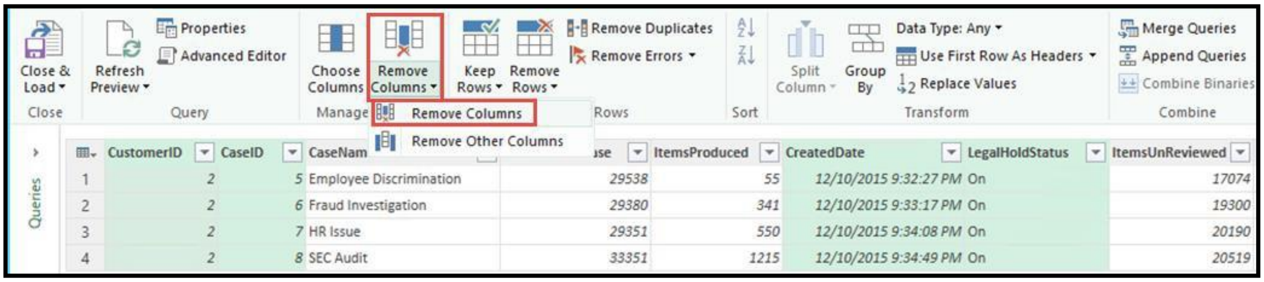


Figure 22 – Remove Columns

Highlight all the remaining columns that contain numeric values and select **Data Type/Whole Number**.

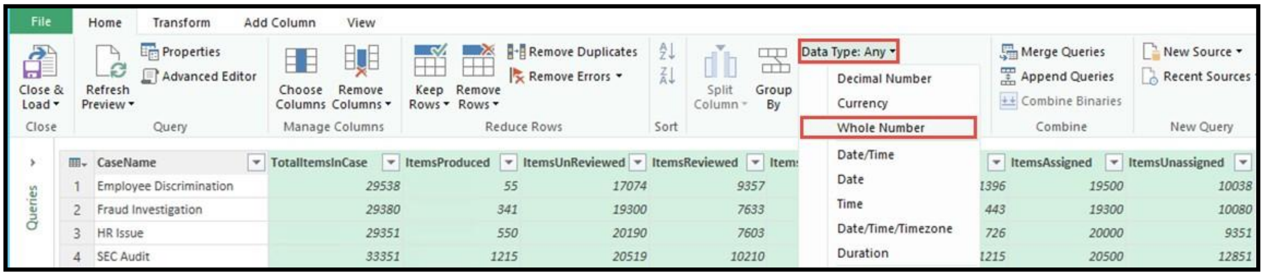


Figure 23 – Change the Data Type

Click Close & Load/Close & Load To…

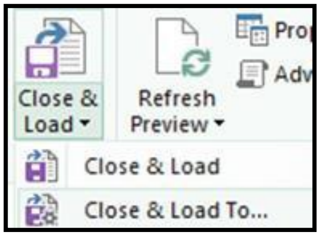


Figure 24 – Close & Load

Select **Only Create Connection**.

Check **Add this Data to the Data Model**.

Click **Load**.

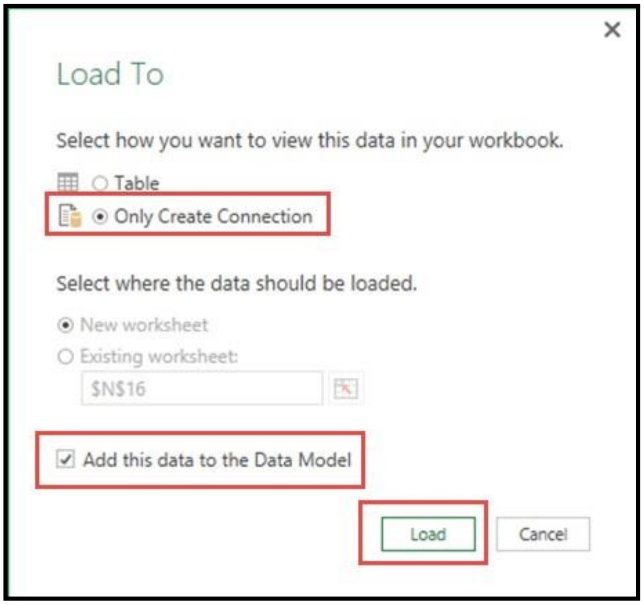


Figure 25 – Adding Query to Data Model

Under **Workbook Queries**, the **CaseHistory** query that we just created appears.

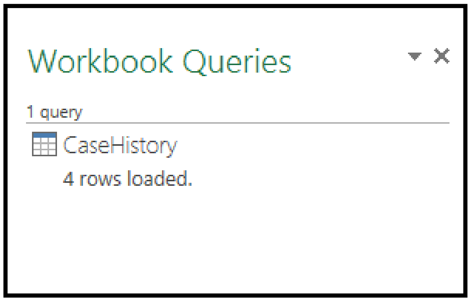


Figure 26 – Workbook Queries

Click **Insert/Pivot Chart/Pivot Chart & Pivot Table**.

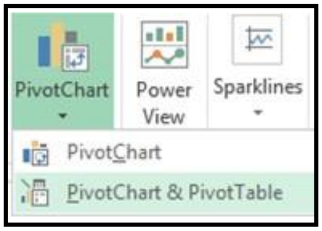


Figure 27 – PivotChart & PivotTable

Click **Use an External Data Source** and select **Choose Connection.**

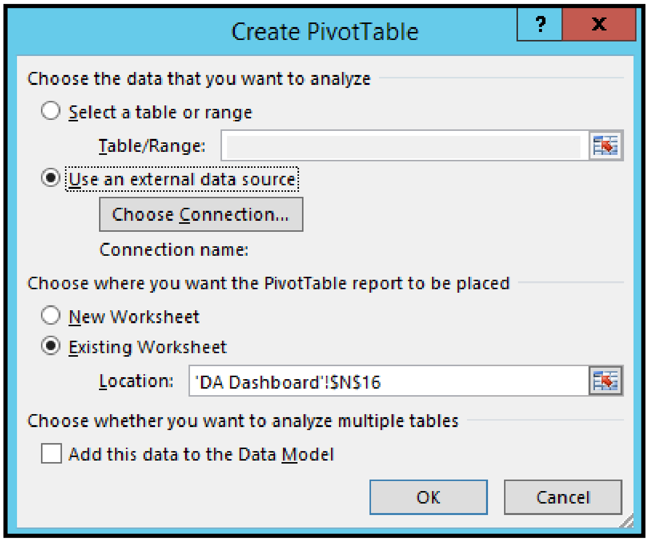


Figure 28 – Choose Connection

Select **Query - Case History** and click **Open**.

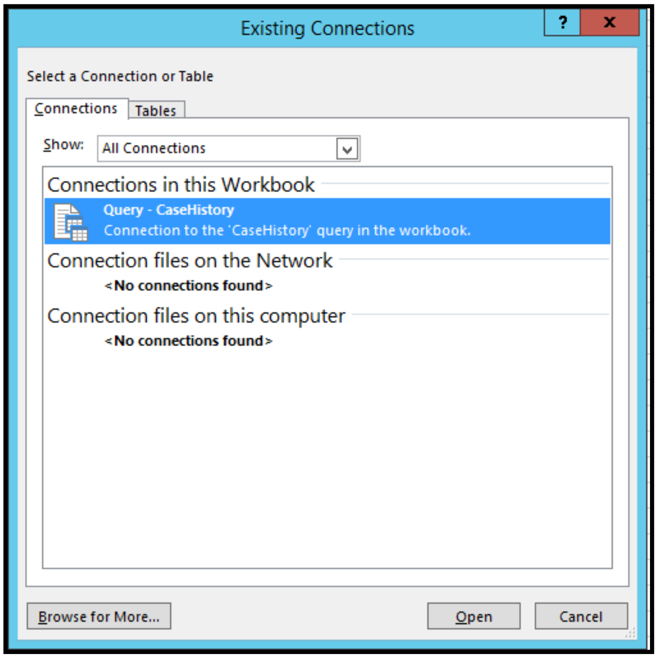


Figure 29 – Select Query

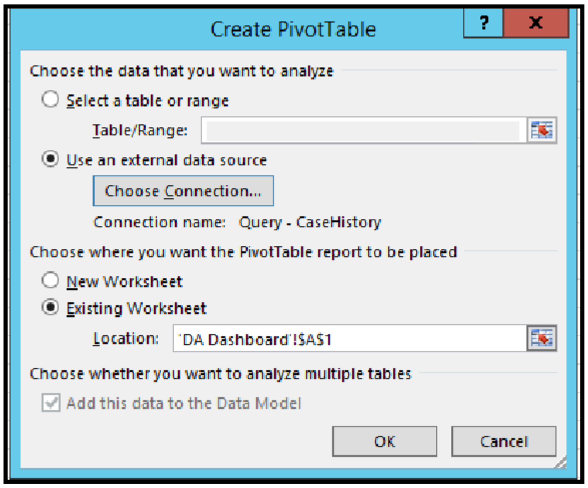


Figure 30 – Create PivotTable

Click **OK.**

Click on **Chart1**

On the far right of the screen under **PivotChart Fields** click **CaseName**.

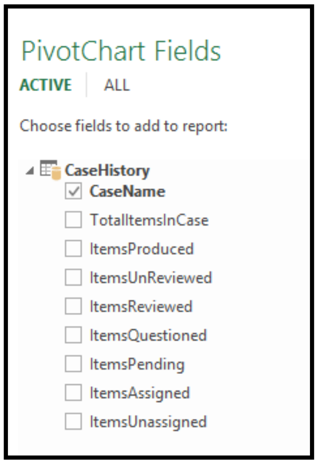


Figure 31 – PivotChart Fields

CaseName should now appear under **AXIS (Categories)**.

Figure 32 – AXIS (CATEGORIES)

Select the remaining **PivotChart Fields**.

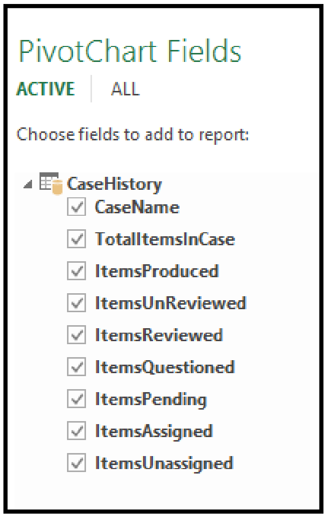


Figure 33 – PivotChart Fields

The remaining fields should now appear under the **Values**.

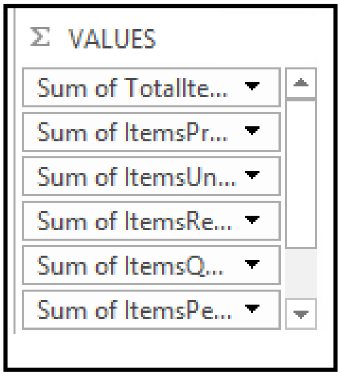


Figure 34 – Values

Adjust the size of the chart and columns leaving the first four lines of the spreadsheet blank.

Row Labels	Sum of TotalItemsInCase	Sum of ItemsProduced	Sum of ItemsUnReviewed	Sum of ItemsReviewed	Sum of ItemsQuestioned	Sum of ItemsPending	Sum of ItemsAssigned
Employee Discrimination	29538	55	17074	9357	1711	1396	19500
Fraud Investigation	29380	341	19300	7633	2004	443	19300
HR Issue	29351	550	20190	7603	832	726	20000
SEC Audit	33351	1215	20519	10210	1407	1215	20500
Grand Total	121620	2161	77083	34803	5954	3780	79300

Figure 35 – CaseHistory Table and Chart

Right-click on **CaseName** and select **Hide all field buttons in chart.**

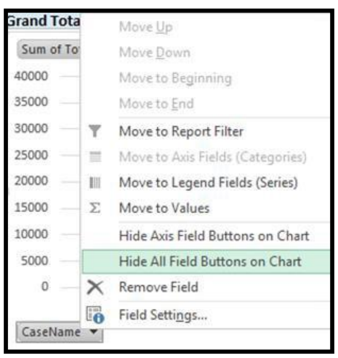
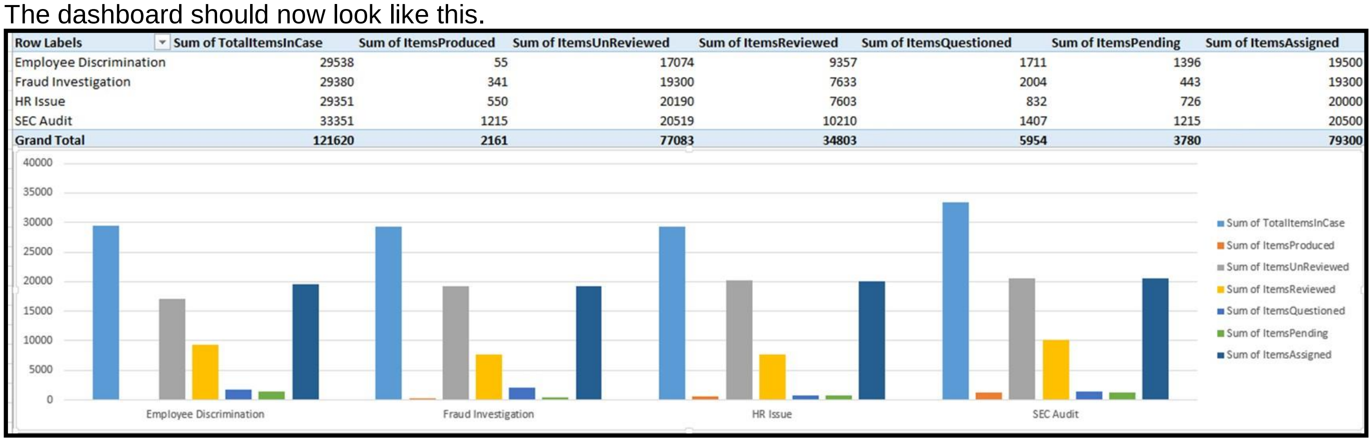


Figure 36 – Hide Field Buttons

The dashboard should now look like this.



Row Labels	Sum of TotalItemsInCase	Sum of ItemsProduced	Sum of ItemsUnReviewed	Sum of ItemsReviewed	Sum of ItemsQuestioned	Sum of ItemsPending	Sum of ItemsAssigned
Employee Discrimination	29538	55	17074	9357	1711	1396	19500
Fraud Investigation	29380	341	19300	7633	2004	443	19300
HR Issue	29351	550	20190	7603	832	726	20000
SEC Audit	33351	1215	20519	10210	1407	1215	20500
Grand Total	121620	2161	77083	34803	5954	3780	79300

Figure 37 – DA Dashboard

Adding a Legal Holds Chart

Now create another chart to add to this dashboard to show the number of Legal Holds per case.

Highlight the **Power Query** Tab. Select **From Other Sources/From OData Feed**

Enter [http://*DAservername*/DAReporting/OData/LegalHolds(customerID=X)](http://DAservername/DAReporting/OData/LegalHolds(customerID=X)) Replace **X** with your customerID**.**

Click **OK.**

Under **Query Settings**, rename the Query to **Legal Holds**.

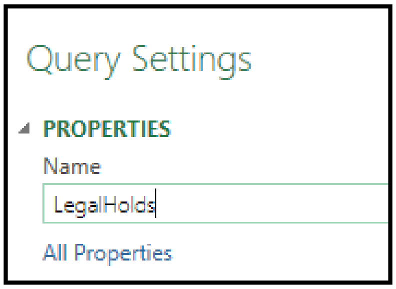


Figure 38 – Query Name

There is a lot of information in this dataset that you may want to include within your reports, but in this example, we will remove all columns except CaseName and TotalItemsHeld by highlighting the remaining columns and selecting **Remove Columns/Remove Columns**.

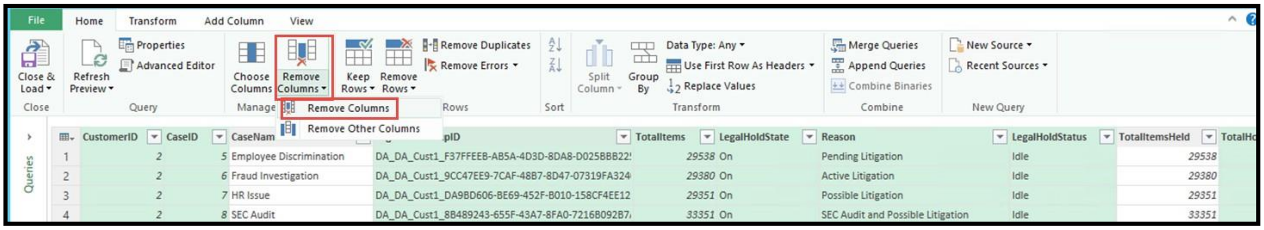


Figure 39 – Remove Columns

Highlight **TotalItemsHeld** and select **Data Type/Whole Number**.

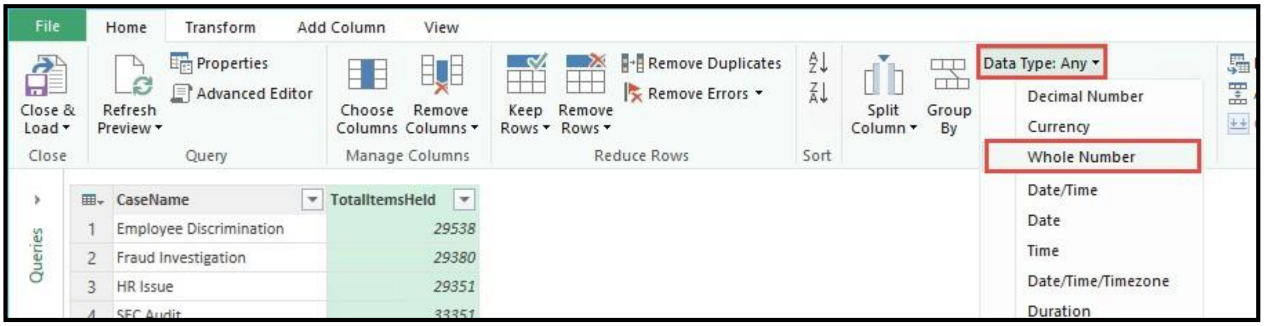


Figure 40 – Change Data Type

Select **Close & Load/Close & Load To ….**

In the Load To screen,

Select **Only Create Connection.**

Check **Add this data to the Data Model**

Click **Load.**

Select **Insert/Pivot Chart/Pivot Chart**

Select **Use an External Data Source**

Click **Choose a Connection.**

Click **Query - Legal Holds**

Click **Open**

Click **OK**

Move the chart to where you would like it to appear on the spreadsheet.

Highlight the new Pivot Chart and select **PIVOTCHART TOOLS\ANALYZE\Field List** if a list of Pivot Chart fields does not appear to the right.

Figure 41 – Field List

Check **CaseName** and **TotalItemsHeld** within the **PivotChart Fields.**

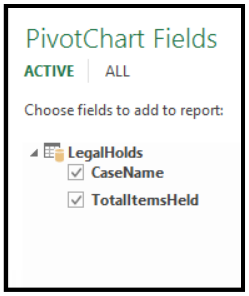


Figure 42 – PivotChartFields

Right-click on Chart and select **Change Chart Type.**

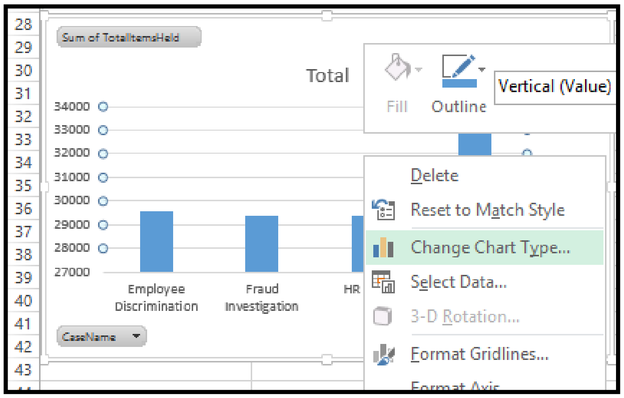


Figure 43 – Change Chart Type

Select the appropriate chart type and click **OK.**

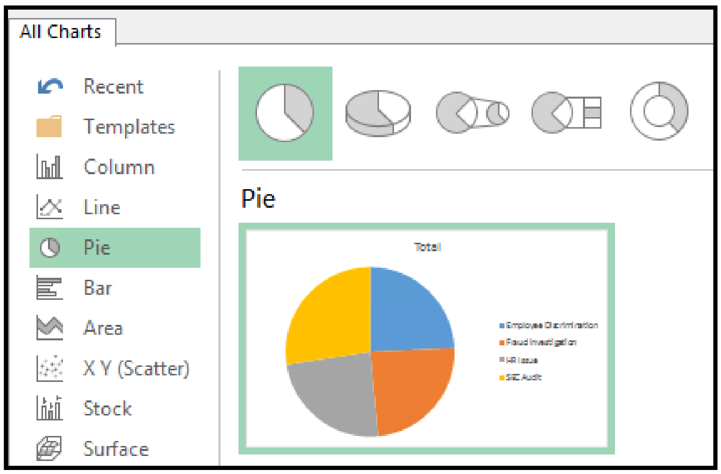


Figure 44 – Pie Chart

Right-click on **SumofTotalItemsHeld** and select **Hide all Field Buttons in Chart.**

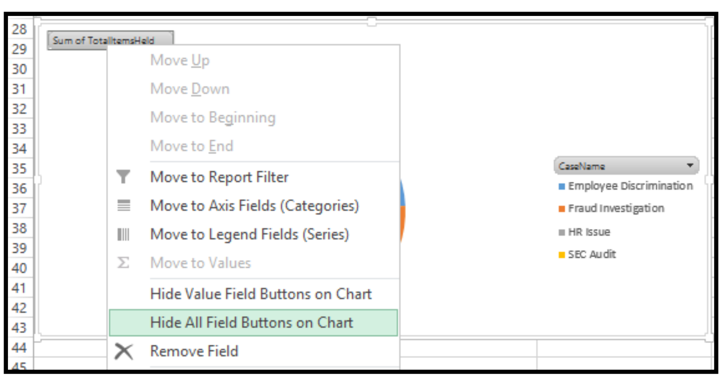


Figure 45 – Hide All Field Buttons

Right-click on the word **Total** and select **Edit Text.** Rename to **Total Legal Holds By Case.**

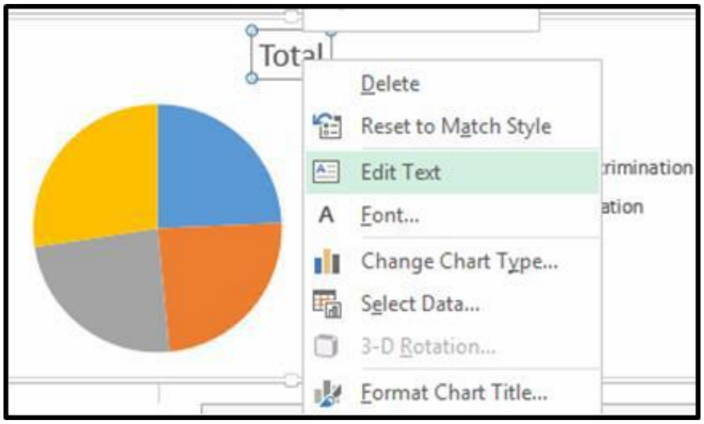
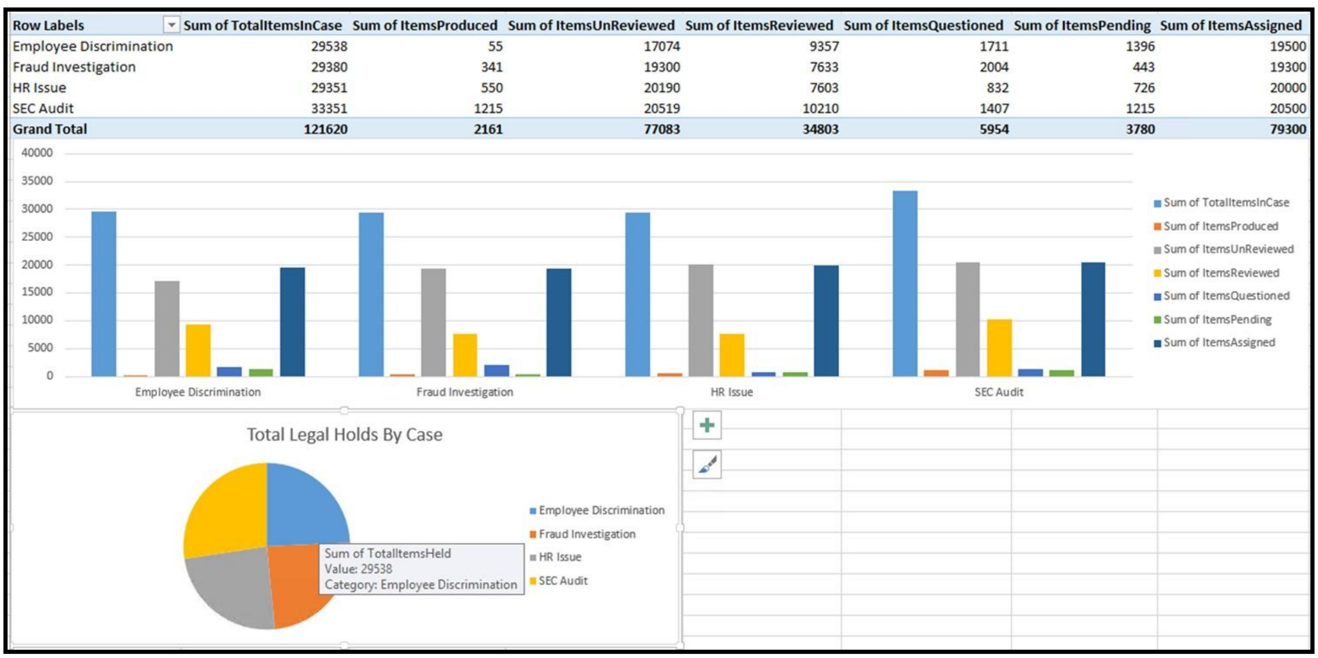


Figure 46 – Edit Text

Your Discovery Accelerator Dashboard should now look like the graphic below. Note that highlighting an area of the Pie Chart will indicate the total number of items on Legal Hold, per case.



Row Labels	Sum of TotalItemsInCase	Sum of ItemsProduced	Sum of ItemsUnReviewed	Sum of ItemsReviewed	Sum of ItemsQuestioned	Sum of ItemsPending	Sum of ItemsAssigned
Employee Discrimination	29538	55	17074	9357	1711	1396	19500
Fraud Investigation	29380	341	19300	7633	2004	443	19300
HR Issue	29351	550	20190	7603	832	726	20000
SEC Audit	33351	1215	20519	10210	1407	1215	20500
Grand Total	**121620**	**2161**	**77083**	**34803**	**5954**	**3780**	**79300**

Figure 47 – DA Dashboard

Adding a chart to display search results

Now create another chart to add to this report to show Search results.

Highlight the **Power Query** Tab. Select **From Other Sources/From OData Feed**

Enter http://DAservername/DAReporting/OData/Searches(customerID=X) Replace **X** with your customerID.

Click **OK**.

Under Query Settings, rename the Query to **Searches**

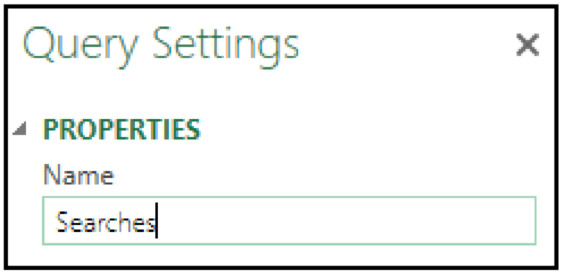


Figure 48 – Enter URL

There is a lot of information in this dataset, but we will remove all columns except SearchName and NumberOfHits by highlighting the other columns with **Ctrl-Shift** and selecting **Remove Columns/Remove Columns**.

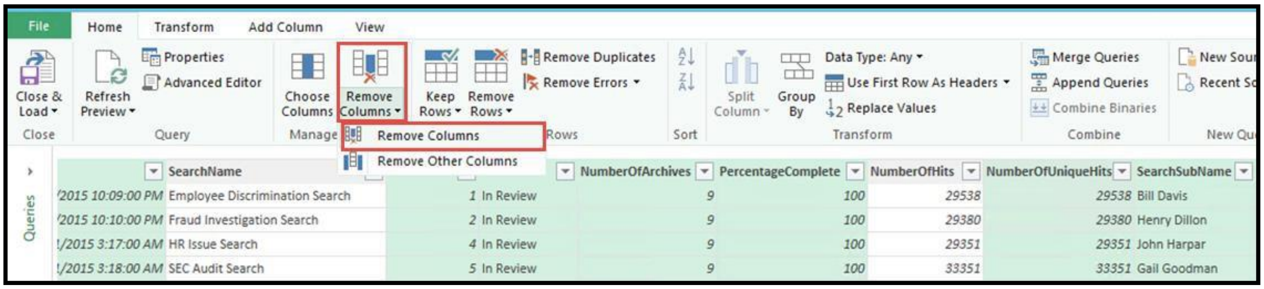


Figure 49 – Remove Columns

Select **NumberOfHits** and select **Data Type/Whole Number.**

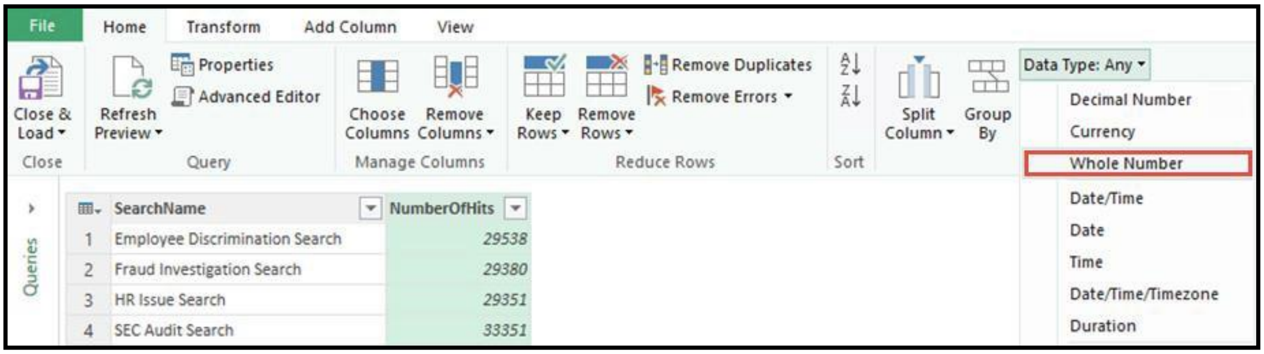


Figure 50 – Select Data Type

Select **Close & Load/Close & Load To ….**

In the Load To screen, select **Only Create Connection.**

Check **Add this data to the Data Model**

Click **Load.**

Select **Insert/Pivot Chart/Pivot Chart**

Select **Use an External Data Source**

Click **Choose a Connection.**

Click **Query - Searches**

Click **Open**

Click **OK**

Move the chart to where you would like it to appear on the spreadsheet.

Highlight the new Pivot Chart and select **PIVOTCHART TOOLS\ANALYZE\Field List** if a list of Pivot Chart fields does not appear to the right.

Figure 51 – Field List

Check both **SearchName** and **NumberOfHits** within the PivotChart Fields.

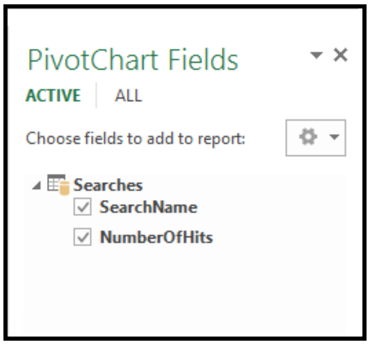


Figure 52 – PivotChart Fields

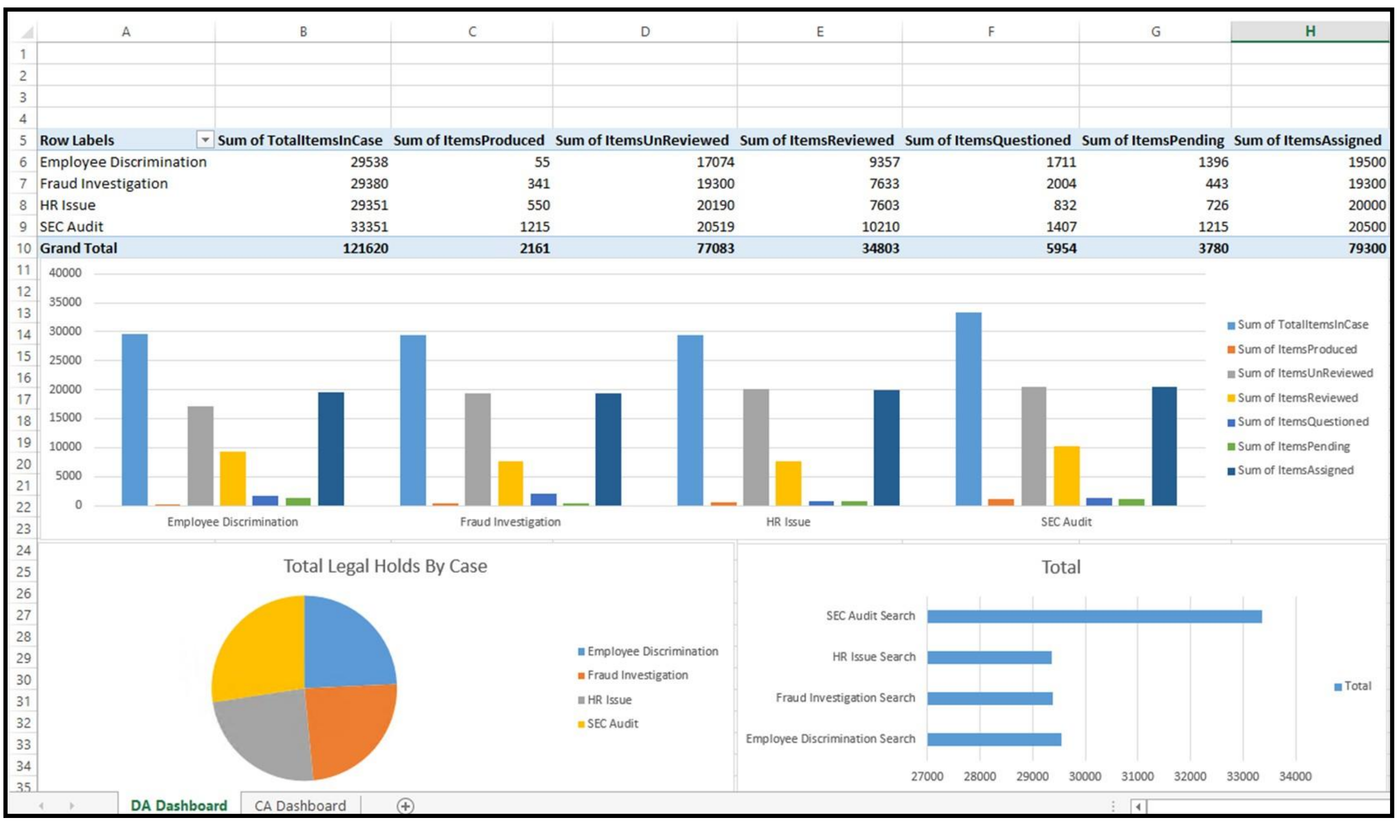
Right-click on the chart and select **Change Chart Type**.

Select the Chart Type of your choice and Click **OK**.

Figure 53 – Select Chart

Right click on **SumofNumberofHits** and select **Hide all Field Buttons on Chart**.

Your Discovery Accelerator Dashboard should now look like the **i**llustration below.



Row Labels	Sum of TotalItemsInCase	Sum of ItemsProduced	Sum of ItemsUnReviewed	Sum of ItemsReviewed	Sum of ItemsQuestioned	Sum of ItemsPending	Sum of ItemsAssigned
Employee Discrimination	29538	55	17074	9357	1711	1396	19500
Fraud Investigation	29380	341	19300	7633	2004	443	19300
HR Issue	29351	550	20190	7603	832	726	20000
SEC Audit	33351	1215	20519	10210	1407	1215	20500
Grand Total	**121620**	**2161**	**77083**	**34803**	**5954**	**3780**	**79300**

Figure 54 – DA Dashboard

Add a header to the dashboard.

Select **Insert/Shapes** and choose **Rectangle.** Click and drag to fill the top four rows. Leave the rows of the last two columns blank, as we will insert another object there.

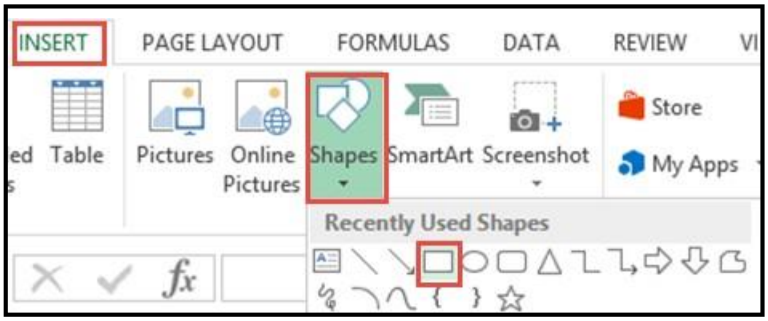


Figure 55 – Insert Shapes

Right click on the rectangle area and select **Edit Text**

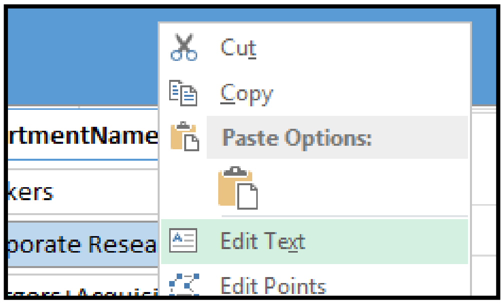


Figure 56 – Edit Text

Type **Discovery Accelerator Dashboard**. Center the text and adjust the font.

Your dashboard should look like the illustration below.

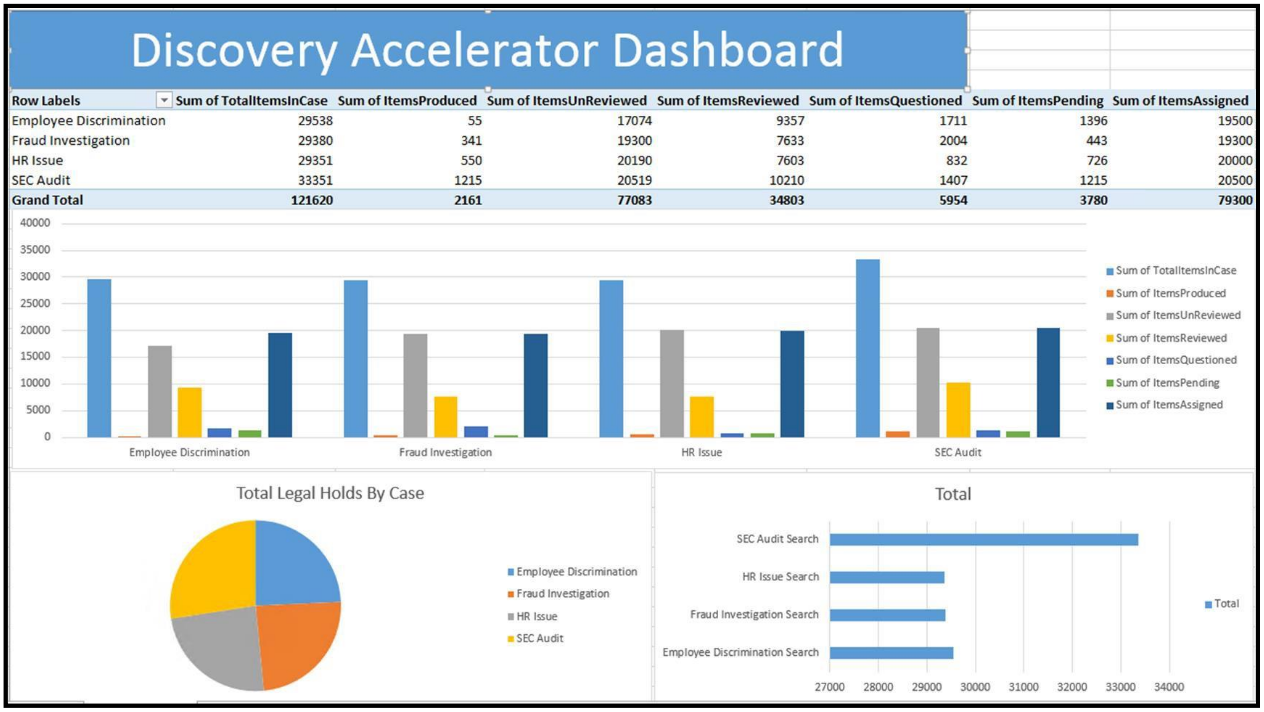


Figure 57 – DA Dashboard

As a final step, create a tab on the top, right-hand corner of the dashboard, which will allow us to link to the Compliance Accelerator Dashboard we will create next.

Select **Insert/Shapes** and **Choose Rectangle** to fill the final two columns of the top four rows of our dashboard.

Right-click on the new rectangle and select **Edit Text.**

Type **Compliance Accelerator Dashboard**. Center the text and adjust the font.

Right click and select **Hyperlink**.

Select **Place in this Document/CA Dashboard**.

Click **OK**

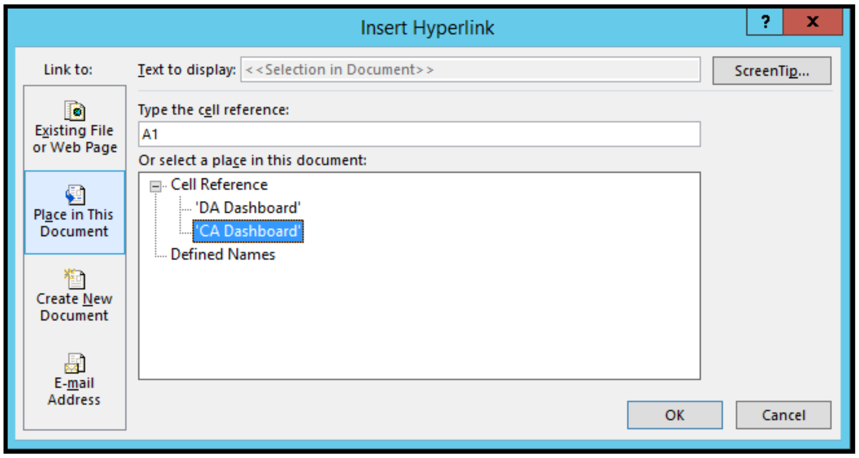


Figure 58 – Place in this Document

Your dashboard should now look like the illustration below.

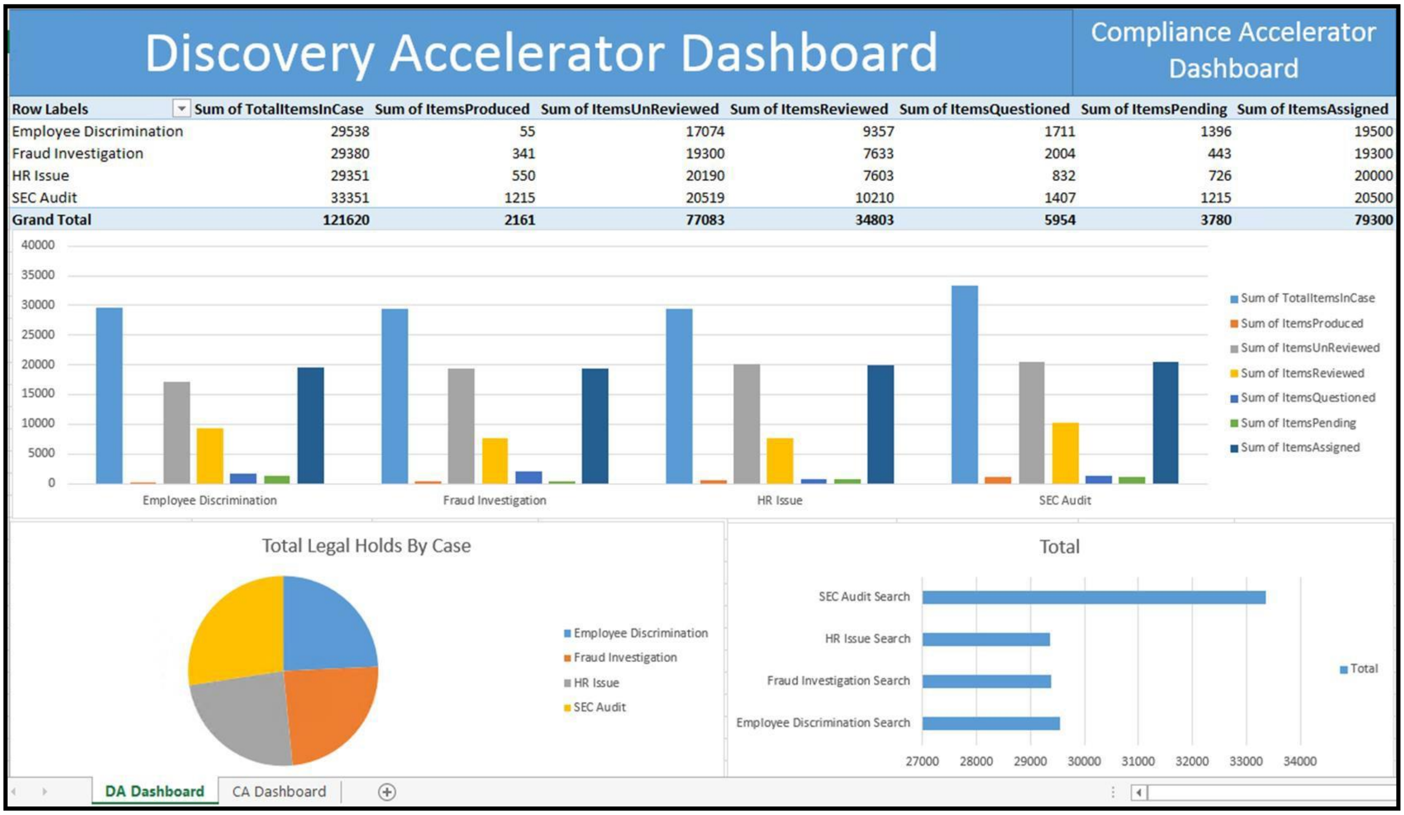


Figure 59 – DA Dashboard

Creating a Compliance Accelerator Dashboard

Now click on the **Compliance Accelerator Dashboard tab** you just created, to move to the CA Dashboard worksheet. We will create and work with the Compliance Accelerator datasets listed below:

- **Departments**
- **ReviewerActivityByReviewer**
- **ReviewActivitySummary**

In this example, you will load all of the dataset queries into the Data Model, prior to creating the dashboard charts. You will also merge datasets together.

Performing a Departments Dataset Query

Select **PowerQuery/From Other Sources/From OData Feed**

Enter: **http://CAservername/CAReporting/OData/Departments(customerID=X)**

Replace **x** with your customerID number.

Click **OK.**

If you receive a **User was not authorized** error, click **Windows.**

Select **Use my current credentials**.

Click **Connect**.

Change the **Query Name** from **Query 1** to **Departments**.

Select **Close & Load\Close & Load To….**

Select **Only Create Connection**

Click **Add this data to the Data Model.**

Click **Load.**

Under **Workbook Queries**, you will see the **Departments** query added.

Now we will add a second dataset.

Performing a ReviewerActivityByReviewer Dataset Query

Select **PowerQuery/From Other Sources/From OData Feed** and enter:

http://*CAServerName*/CAReporting/OData/ReviewerActivityByReviewer(customerID=X) Replace **X** with your customerID.

Click **OK**.

Under **Query Settings**, rename query to **ReviewerActivityByReviewer.**

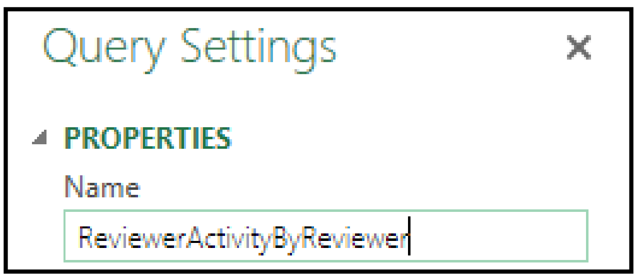


Figure 60 – Enter URL

The dataset we have selected lists the DepartmentID, but there is no corresponding Department Name. To resolve this, we will merge the **Departments** and the **ReviewerActivityByReviewer** datasets together.

Click on a **blank area** of the query table to save the query name.

Merging Queries together

Select **Merge Queries**.

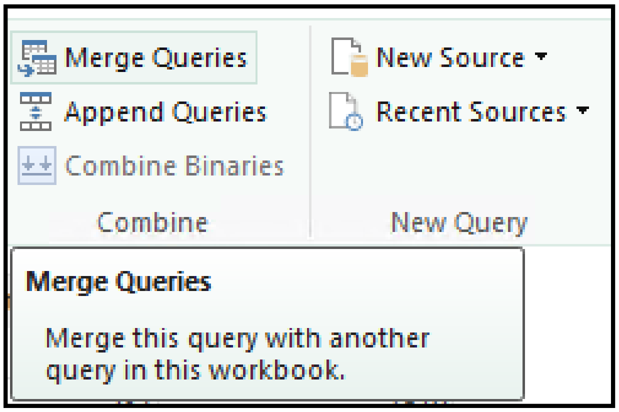


Figure 61 – Merge Queries

Select the **Down Arrow** in the middle of the Merge screen and select the **Departments Query**.

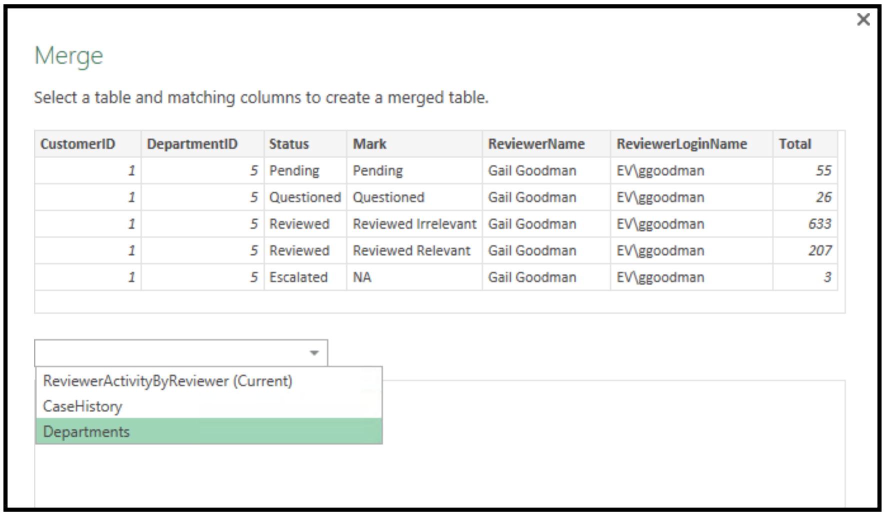


Figure 62 – Select Query to Merge

Holding down the **Ctrl** key, highlight the columns you would like to merge the tables together with and click **OK**.

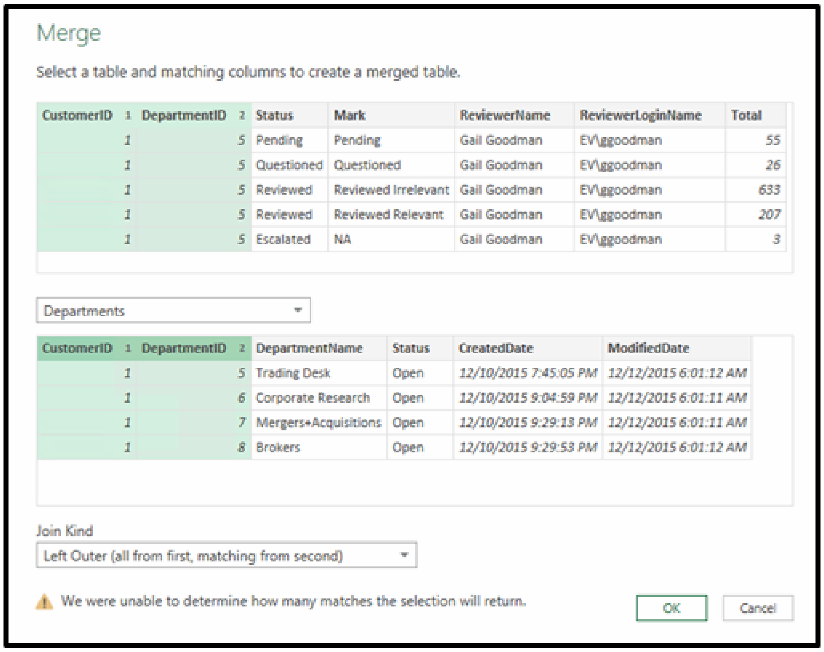


Figure 63 – Select columns to merge tables

Select the Data Privacy Level you desire and click **Save**.

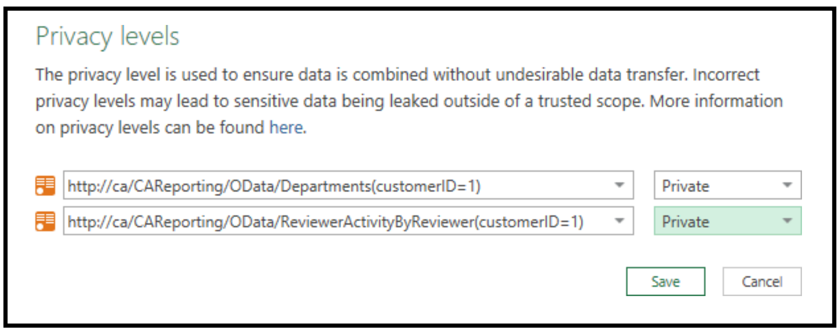


Figure 64 – Privacy Levels

Click **OK.**

The Merged Table appears. Click the **opposing arrows** in the top, right hand corner beside **New Column**. The Departments dataset appears with the associated columns. Deselect **All Columns** and select **DepartmentName**.

Click **OK**.

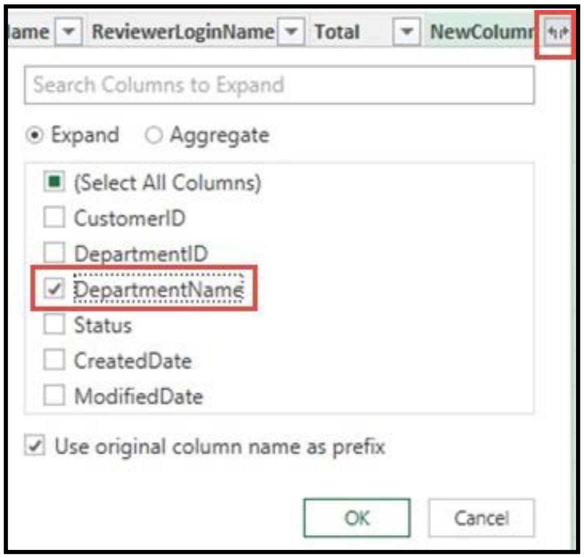


Figure 65 – Select Column

Right-click on **NewColumn.DepartmentName.**

Select **Rename** to rename the column to **DepartmentName**.

Ctrl-Click to highlight the **CustomerID, DepartmentID, Status** and **ReviewerLoginName** columns and select **Remove Columns/Remove Columns.**

.

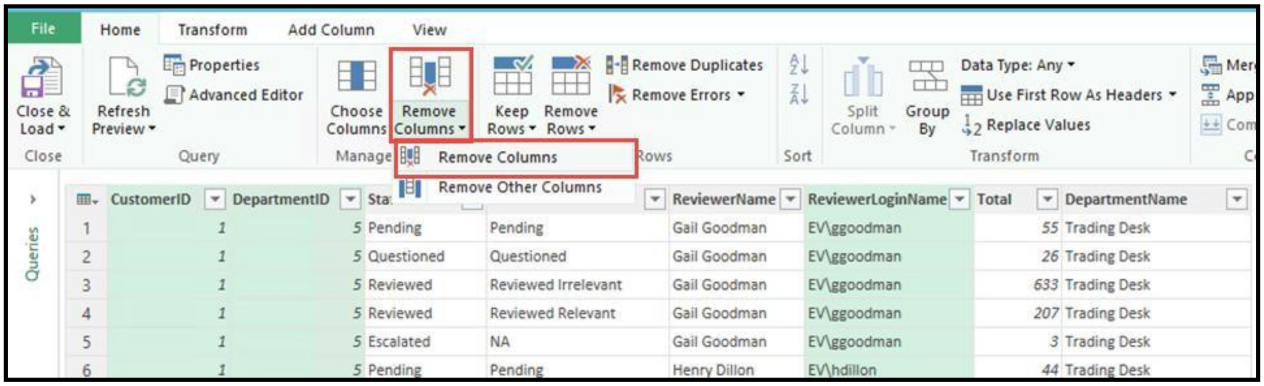


Figure 66 – Remove Columns

Highlight the **Total** column and change **Data Type** to **Whole Number**.

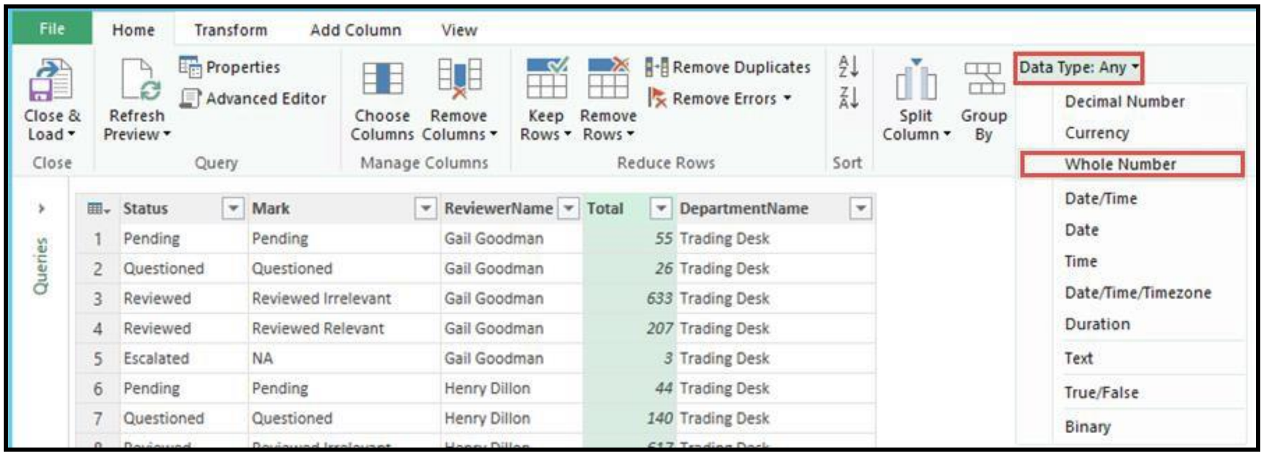


Figure 67 – Change Data Type

Select **Close & Load\Close & Load To….**

Select **Only Create Connection**

Check **Add this data to the Data Model.**

Click **Load.**

Under **Workbook Queries**, you will see the **ReviewerActivityByReviewer** query added.

We will now add our final dataset.

Performing a ReviewActivitySummary Dataset Query

Select **PowerQuery/From Other Sources/From OData Feed.**

Enter: http://*CAservername*/CAReporting/OData/ReviewActivitySummary(customerID=x)

Replace **x** with your customerID number.

Click **OK**

Under **Query Settings**, Rename the query to **ReviewActivitySummary.**

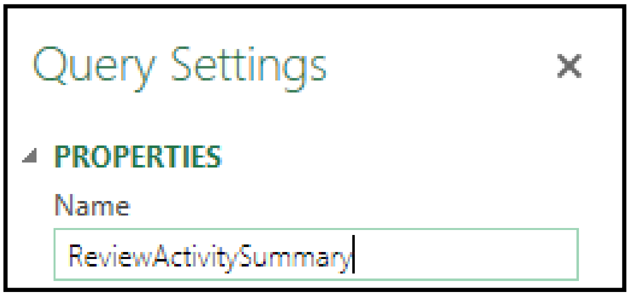


Figure 68 – Add Query Name

Click on a **blank area** of the query table to save the query name.

Select **Merge Queries**

Select the **Down Arrow** in the middle of the Merge screen and select the **Departments** query.

Holding down the **Ctrl** key, highlight the columns you would like to merge the tables together with and click **OK**.

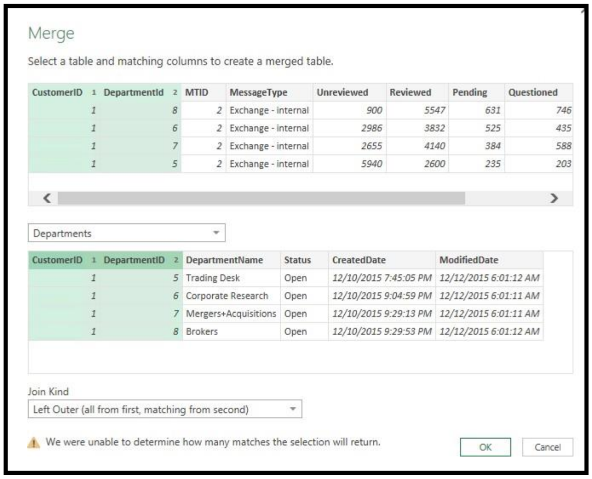


Figure 69 – Select columns to merge tables

Select the Data Privacy Level you wish and click **Save**.

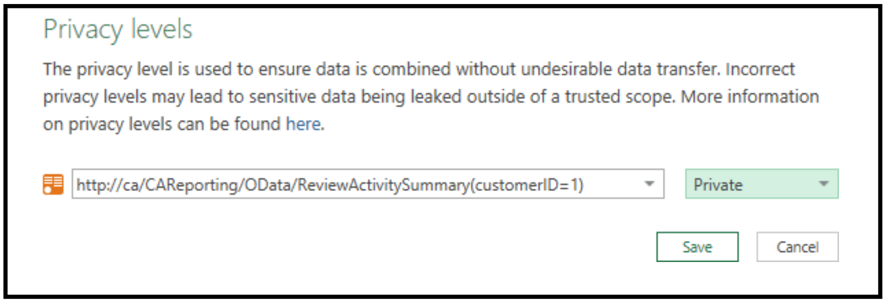


Figure 70 – Privacy Levels

Click **OK.**

The Merged Table appears. In this example, we will select the **opposing arrows** in the top, right hand corner, beside **New Column**.

The Departments data entity appears with the associated columns. Deselect **All Columns** and select only the **DepartmentName** column from the Departments entity.

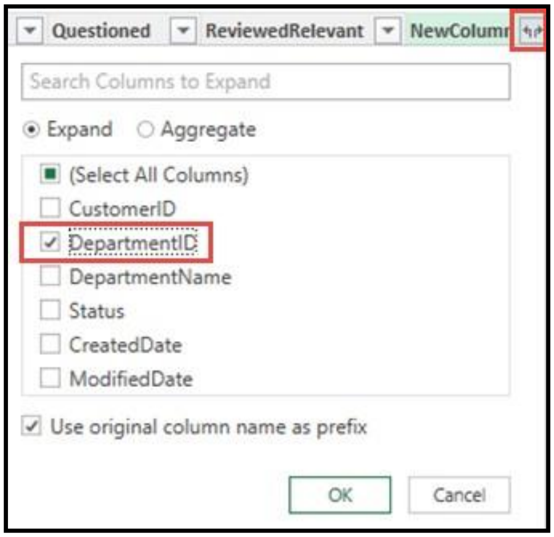


Figure 71 – Select Column

Click **OK**.

Right-click on **NewColumn.DepartmentName** and rename the column to **DepartmentName**.

Highlight the columns you wish to remove and select **Remove Columns/Remove Columns**.

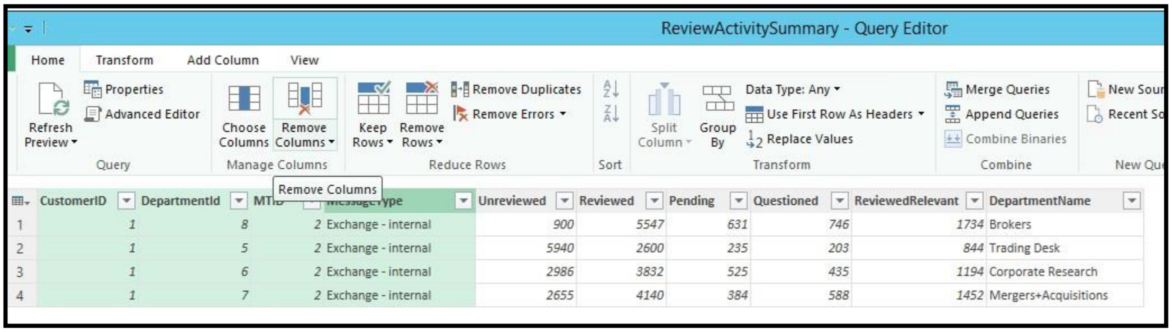


Figure 72 – Remove Columns

Holding down the **Ctrl** key, highlight the columns with numeric values and change **Data Type** to **Whole Number**.

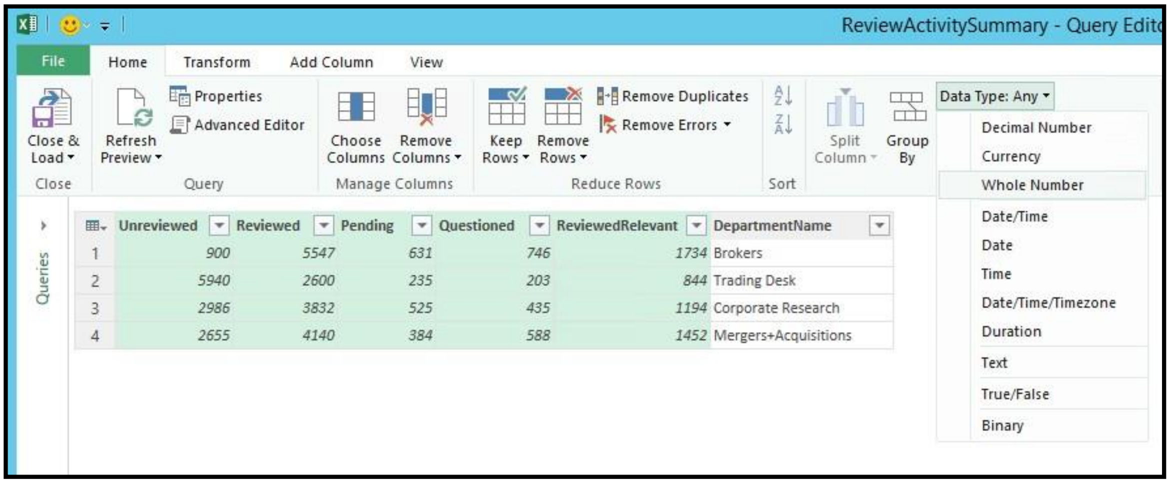


Figure 73 – Change Data Type

Select **Close & Load/Close & Load To…**

Select **Only Create Connection.**

Check **Add this data to the Data Model.**

Click **Load.**

Under Workbook Queries, the **Departments**, **ReviewerActivityByReviewer**, and **ReviewActivitySummary** dataset queries are loaded into our data model.

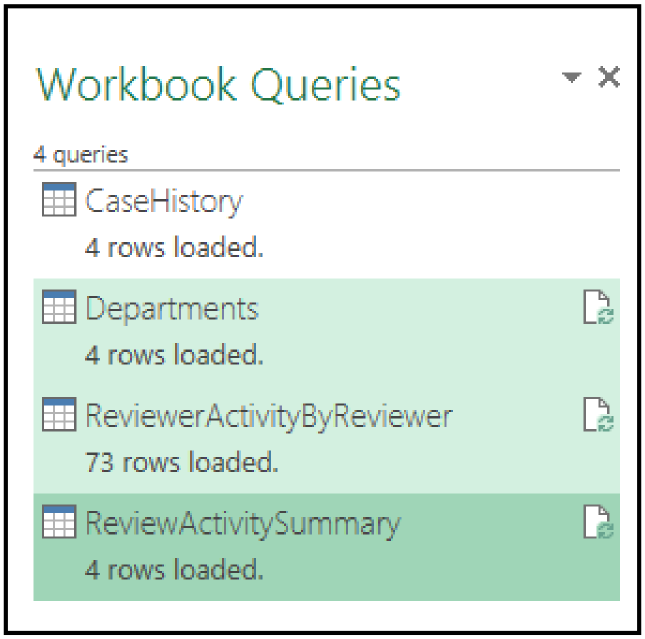


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Figure 74 – Dataset Queries Loaded

Now we are ready to build our Compliance Accelerator Dashboard.

Select **Insert/Pivot Chart/Pivot Chart.**

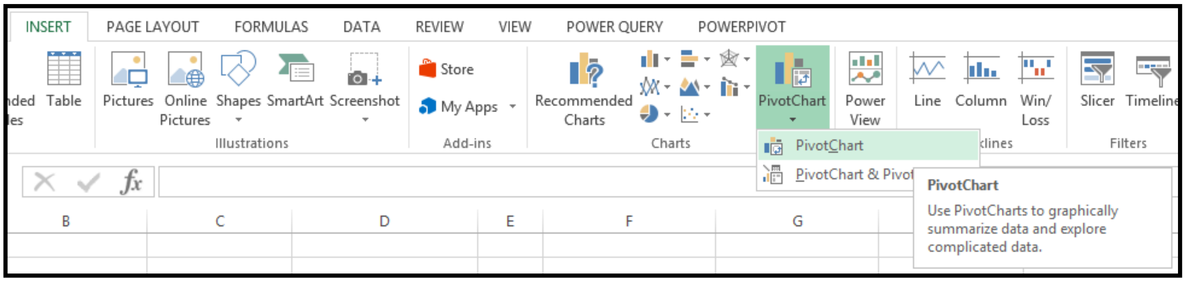


Figure 75 – Insert PivotChart

Select **Use an external data source.**

Select **Choose Connection.**

Select **Query – ReviewerActivityByReviewer.**

Click **Open.**

Click **OK.**

Click on an area of the chart.

Select **PIVOTCHART TOOLS\ANALYZE\Field List** if a list of Pivot Chart fields does not appear to the right**.**

Figure 76 – Select Field List

Check all **PivotChart Fields** except **Mark.**

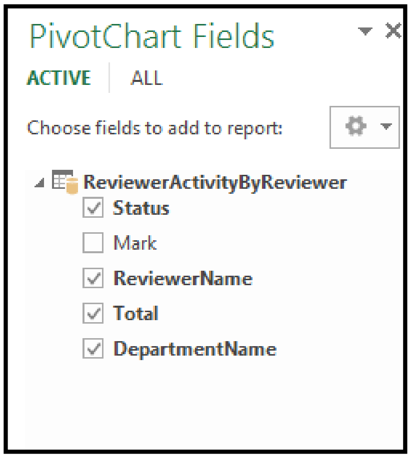


Figure 77 – PivotChart Fields

Adjust the chart size to fit the spreadsheet, leaving the four top rows and the first few columns blank.

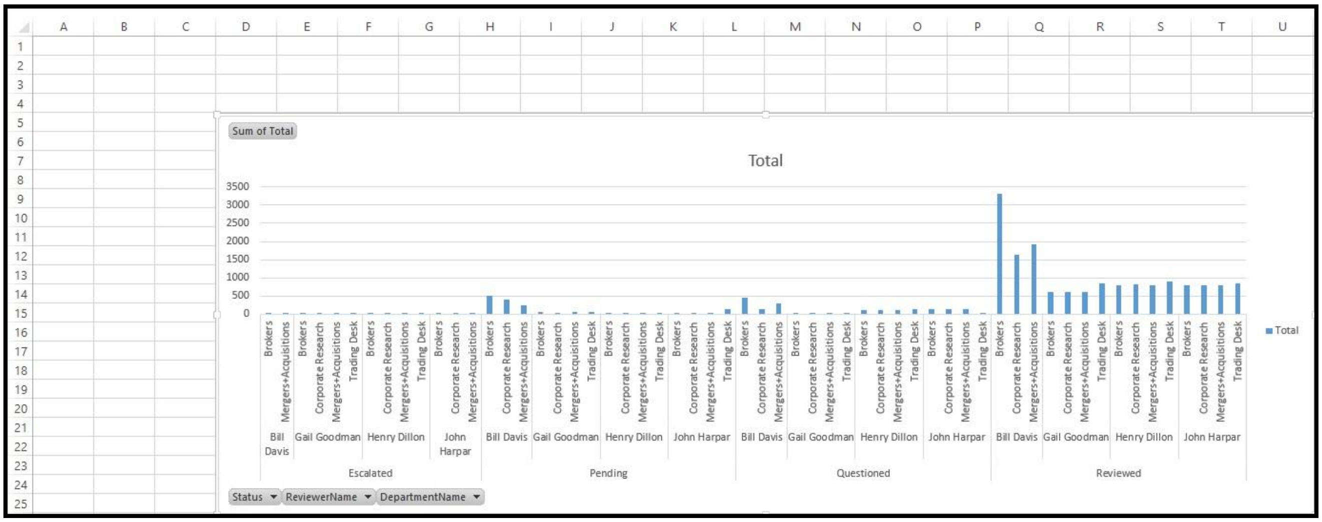


Figure 78 – Adjust Chart Size

Right-click on **Sum of Total** and select **Hide All Field Buttons on Chart.**

Select **Insert/Slicer**

Figure 79 – Slicer

Check **Department Name** and **Reviewer Name** for the Slicers.

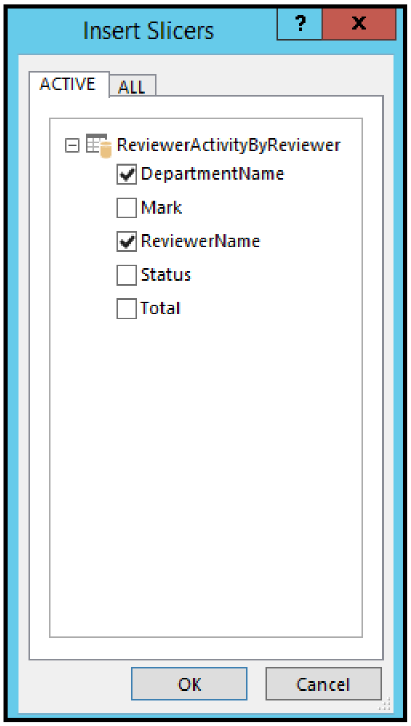


Figure 80 – Select Column Names

Click **OK.**

Reposition the slicers to as illustrated below.

By inserting slicers, we can narrow our view of the content reviewed down to a specific Compliance Accelerator Department and Reviewer.

Right-click on **Total** and select **Edit Text**. Rename the Chart Title to **Reviewer Activity.**

Adjust the font size to your preference.

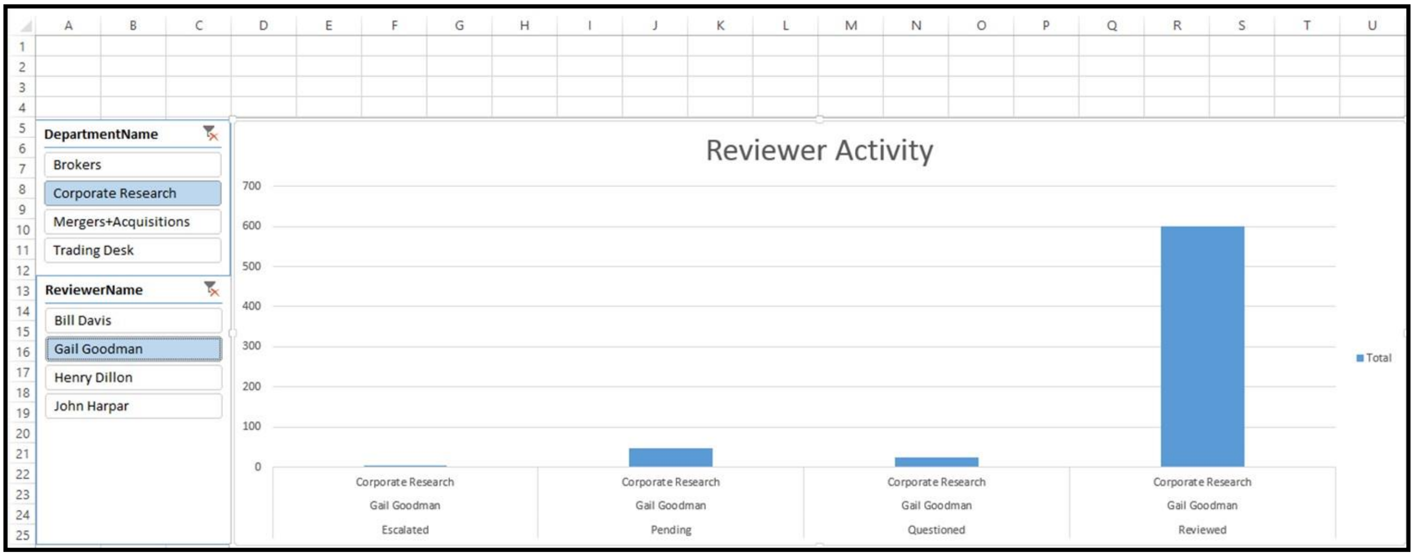


Figure 81 – Report with Slicers

Now we will add a second chart to the dashboard.

Select **Insert/Pivot Chart/Pivot Chart.**

Select **Use an external data source.**

Select **Choose Connection.**

Select **Query – ReviewActivitySummary**

Click **Open.**

Click **OK.**

Click on the new chart.

Click on the **PIVOTCHART TOOLS\ANALYZE\Field List** if the PivotChart Fields do not automatically appear.

Check all the **PivotChart Fields.**

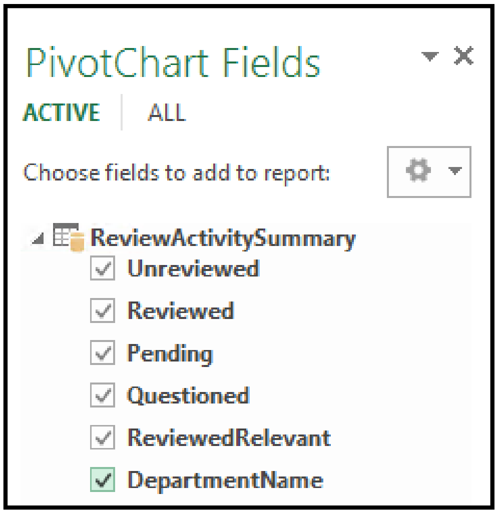


Figure 82 – PivotChart Fields

Adjust the new chart to fit the spreadsheet.

Right-click on the grey, **DepartmentName** box and select **Hide All Field Buttons on Chart.**

You dashboard should now look like the illustration below.

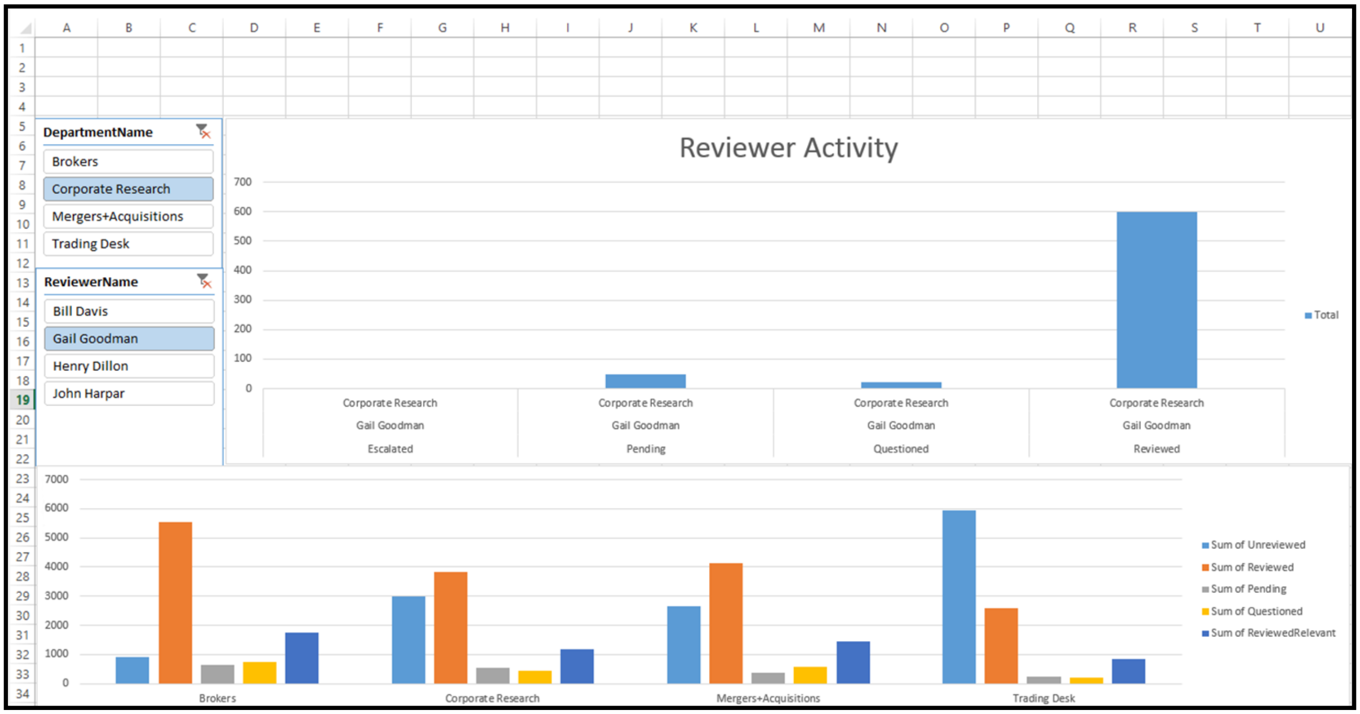


Figure 83 – CA Dashboard

Select **Insert\Shapes** and select the **Rectangle** to create a header for the dashboard. Click and drag the over the top four rows, leaving two/three columns on the right blank. We will add another object later. Right click on the rectangle area that you created for the dashboard header and select **Edit Text.** Provide a name for your dashboard. Adjust the font size and center the text.

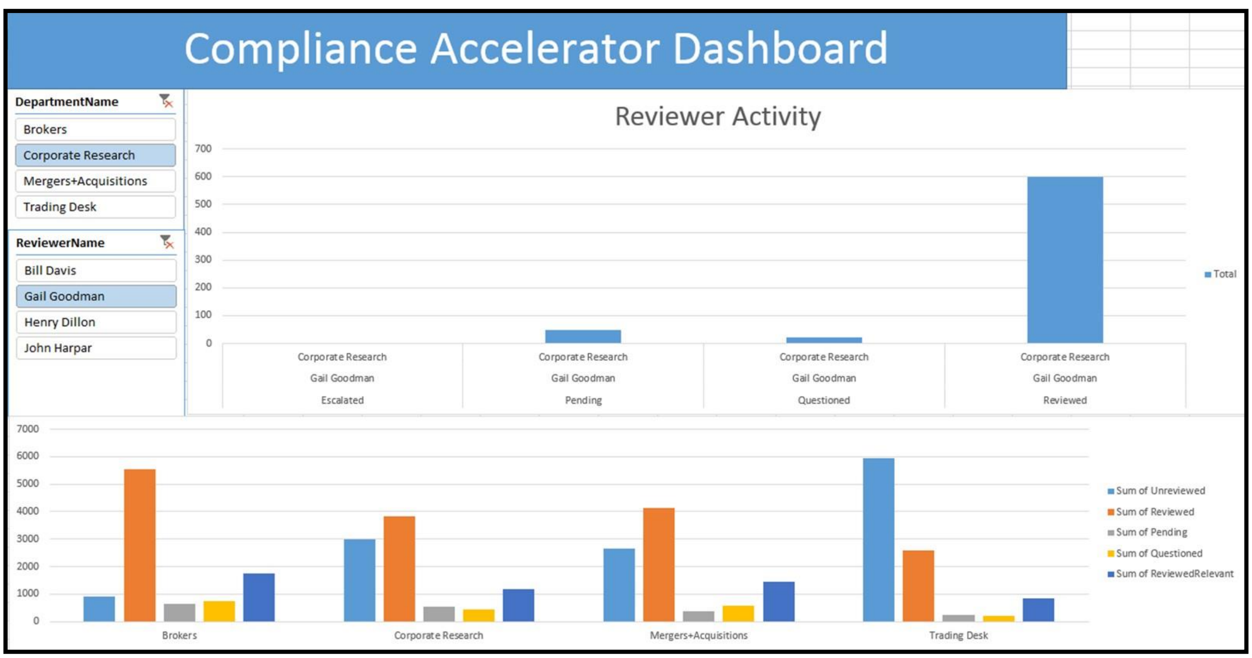


Figure 84 – CA Dashboard

Select **Insert/Shapes** and select another **Rectangle**.

Position it over the two or three columns on the far right that remain blank.

This time we will create a tab that links to the DA Dashboard from the CA Dashboard.

Right-click and select **Edit Text**

Right-click and select **Hyperlink.**

Select **Place in this document/DA Dashboard**

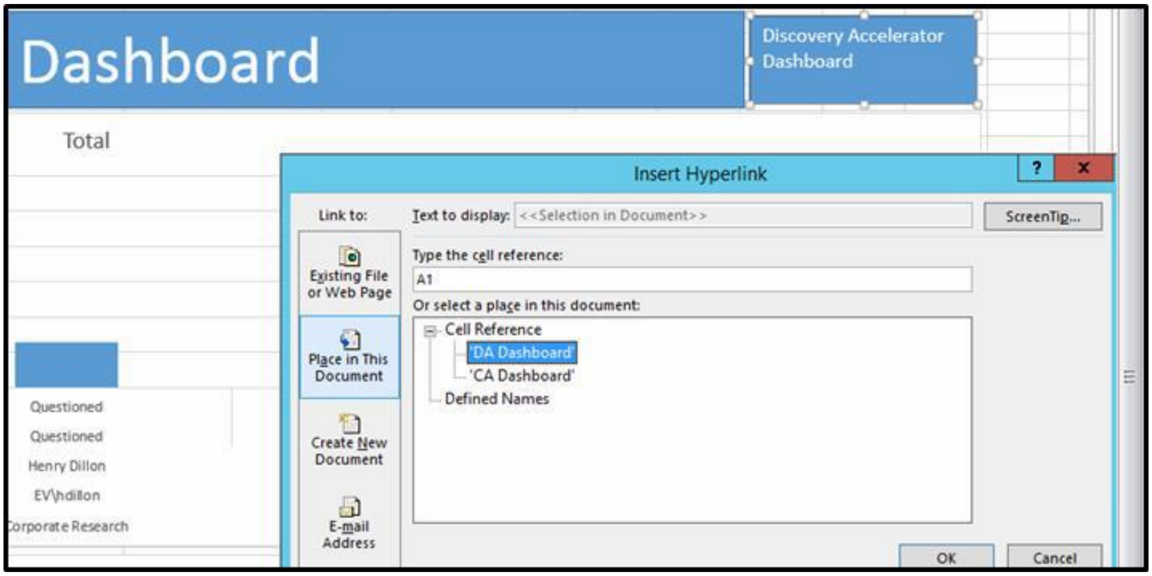


Figure 85 – Create Hyperlink

Click **OK.**

Completed CA and DA Dashboards

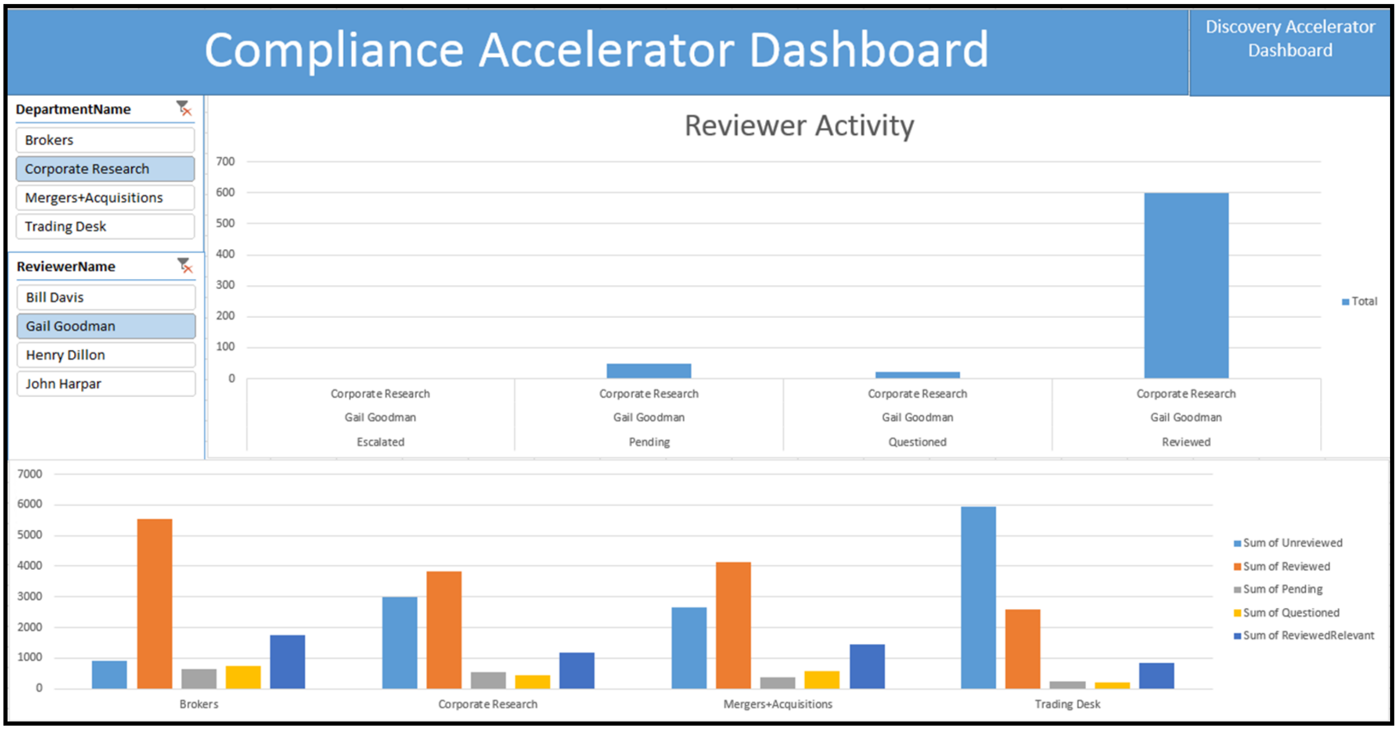
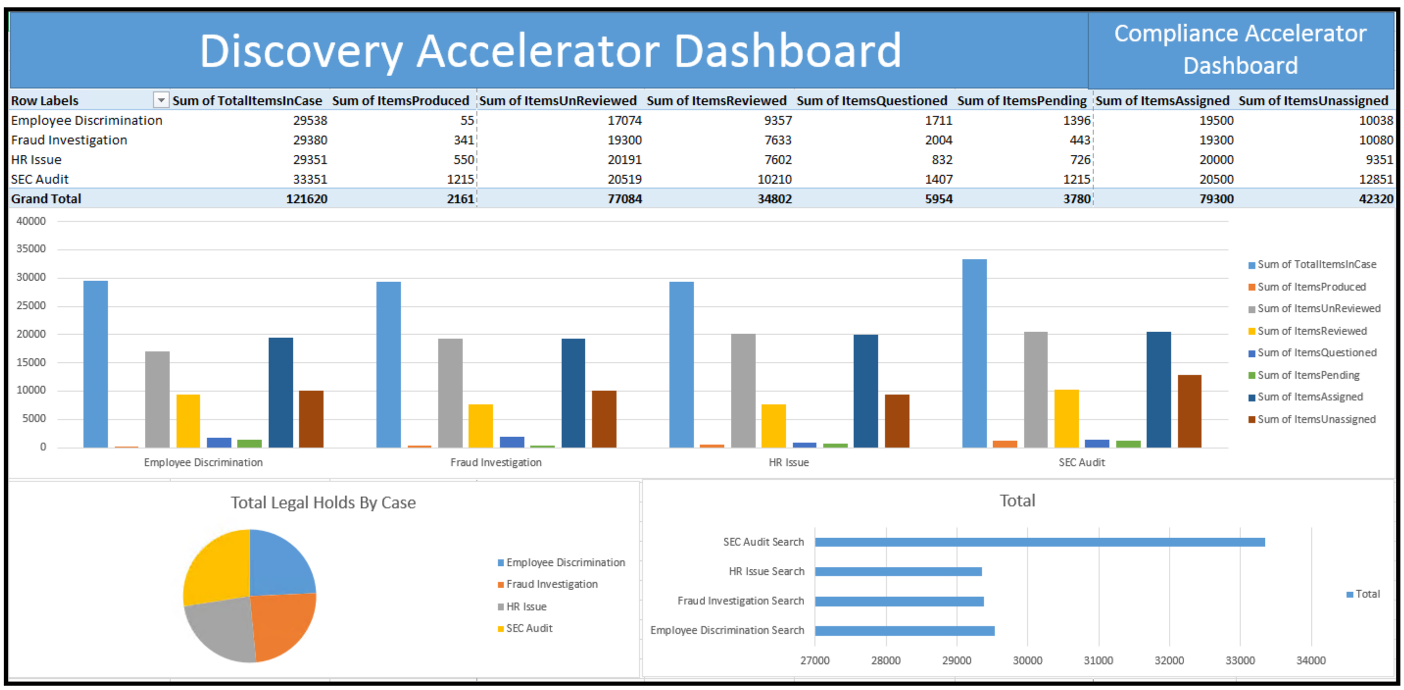


Figure 86 – CA Dashboard



Row Labels	Sum of TotalItemsInCase	Sum of ItemsProduced	Sum of ItemsUnReviewed	Sum of ItemsReviewed	Sum of ItemsQuestioned	Sum of ItemsPending	Sum of ItemsAssigned	Sum of ItemsUnassigned
Employee Discrimination	29538	55	17074	9357	1711	1396	19500	10038
Fraud Investigation	29380	341	19300	7633	2004	443	19300	10080
HR Issue	29351	550	20191	7602	832	726	20000	9351
SEC Audit	33351	1215	20519	10210	1407	1215	20500	12851
Grand Total	**121620**	**2161**	**77084**	**34802**	**5954**	**3780**	**79300**	**42320**

Figure 87 – DA Dashboard

Understanding the 12.1 CA and DA Datasets

12.1 CA Comparative Reporting Datasets

New CA datasets allow administrators to create comparative reports which detail the end-to-end results from Enterprise Vault into CA of Randomly Sampled archived data. Customers need reporting to ensure that the number of items sampled by Enterprise Vault and targeted for ingestion into CA, correlates with the number of items that CA actually ingests for review.

The Enterprise Vault Classification Engine can discard or exclude messages from CA review based upon classification policies. For example, perhaps the Classification Engine excludes or discards certain emails considered Spam from a particular external recipient from CA review. This is beneficial for the reviewers, as they do not have to wade through emails that are irrelevant to the review process. This can also affect the number of items we ingest into CA for review. An administrator must show an auditor not only the number of items ingested into CA but also the number of items discarded or excluded from review, based upon Classification policies applied or duplicate items. The table below lists the three new CA Datasets. Appendix B provides a detailed description of each field within the new datasets.

Dataset	Dataset Description
SamplingSummary	Provides compliance sampling statistics data from Enterprise Vault.
GuaranteedSamplingSummary	Provides compliance guaranteed sampling statistics data from Enterprise Vault CA.
StatisticalSamplingSummary	Provides compliance statistical sampling statistics data from Enterprise Vault CA.

Table 7 – EV12.1 CA Datasets for Comparative Review

CA Comparative Reporting compares the **SamplingSummary** dataset (which shows compliance sampling statistics from an EV perspective) against the **GuaranteedSamplingSummary** or the **StatisticalSamplingSummary** (which shows compliance sampling from a CA perspective). Customers use the **GuaranteedSamplingSummary** or **StatisticalSamplingSummary** dataset, depending on which CA sampling mode they configure. Guaranteed Sampling is the default, sampling mode. To change the sampling mode, go to **Configuration/Settings**, expand **Random Capture** and select **Sampling Mode**. A value of 1 = Guaranteed Sampling and a value of 0 = Statistical Sampling.

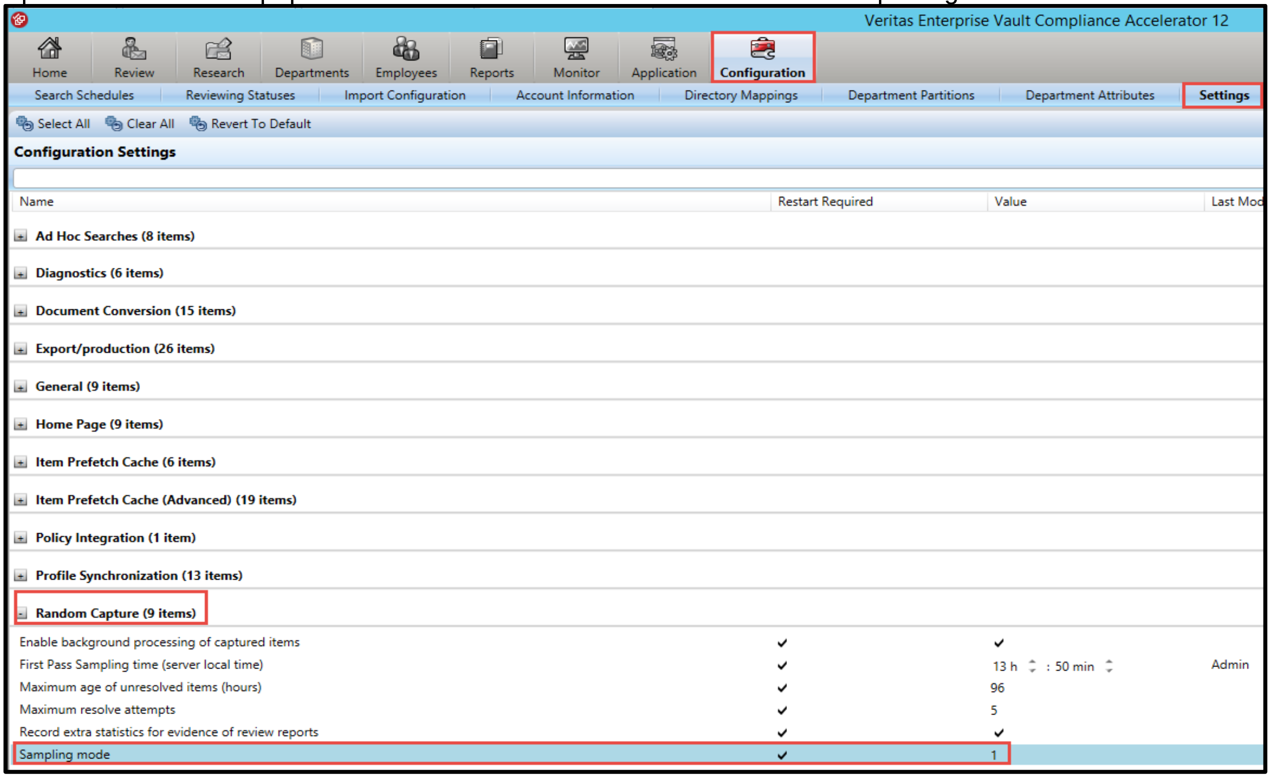


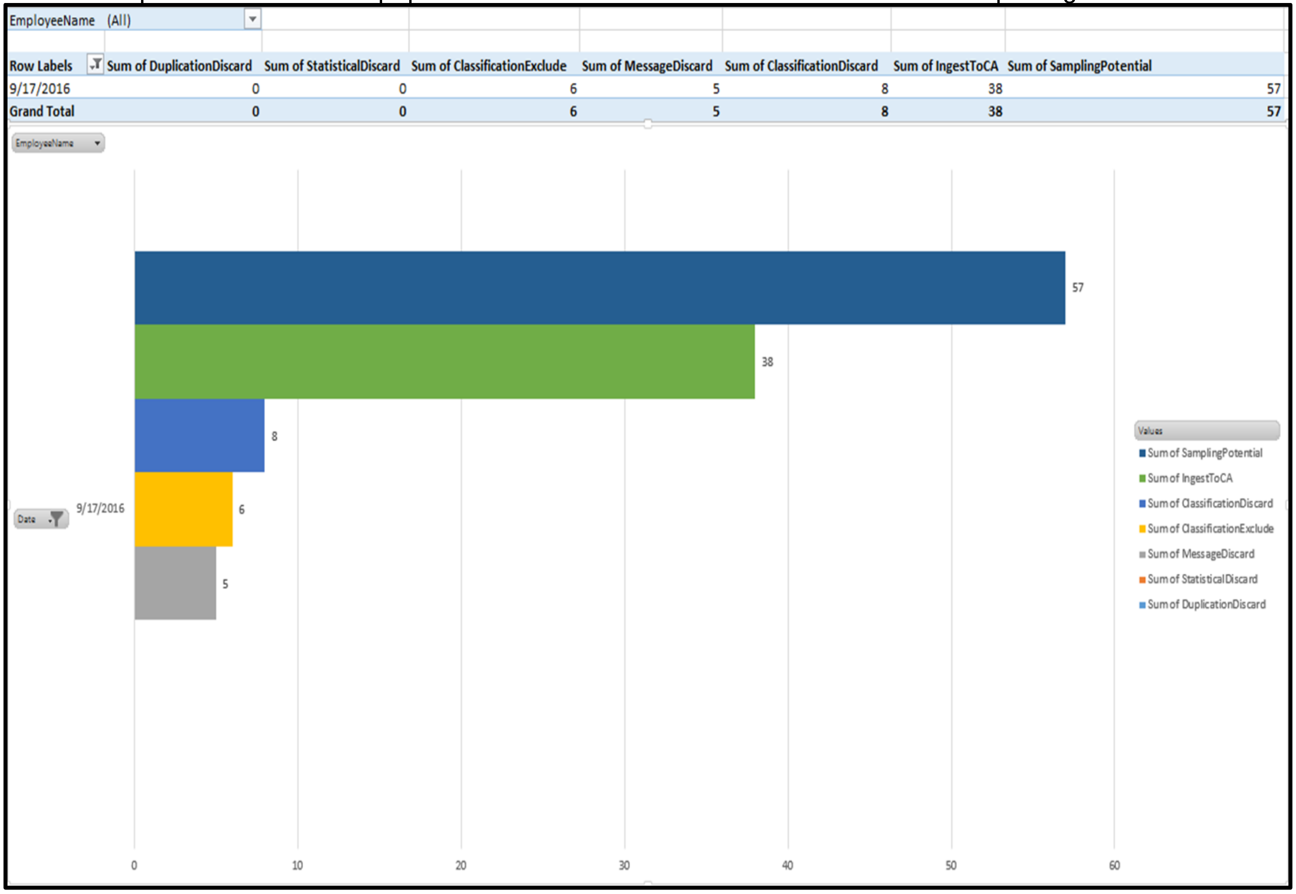
Figure 88 –Configuring Sampling Mode

Guaranteed Sampling captures all items for each monitored employee throughout the day. It picks a random sample for each employee's items and adds them to the review set.

Statistical Sampling takes a random sample of items captured during the previous 24-hour period and adds them to the review set. Customers can also enable capping with Statistical Sampling. Capping can set a limit on the number of randomly sampled items that CA captures and adds to a department review set.

Sampling Summary

Listed below is output from the **SamplingSummary** dataset in the form of a PivotChart.



EmployeeName (All)

Row Labels	Sum of DuplicationDiscard	Sum of StatisticalDiscard	Sum of ClassificationExclude	Sum of MessageDiscard	Sum of ClassificationDiscard	Sum of IngestToCA	Sum of SamplingPotential
9/17/2016	0	0	6	5	8	38	57
Grand Total	0	0	6	5	8	38	57

Figure 89 –Sampling Summary Pivot Chart

The **SamplingPotential** is 57 items but the sum of items to **IngestToCA** is only 38. There is a difference of 19 items between **SamplingPotential** and number of items to **IngestToCA**. The reason for the difference is that Enterprise Vault and the Classification Engine discarded or excluded 19 items from review.

The Classification Engine identified eight messages for **ClassificationDiscard.** In this example, the Classification Engine tagged certain email addresses from social media sites with the **evaction.discard** property.

Figure 90 – Classification Discard Policy

Six items Enterprise Vault tagged with the **evtag.exclusion** property and did not send to CA for Sampling.

The **ClassificationExclude** bar graph lists these six items excluded from review. In this example, emails tagged within Outlook as **Low importance** receive an **evtag.exclusion.**

Figure 91 – Classification Exclude Policy

MessageDiscard lists five discarded items. **MessageDiscard** increments when we encounter Exchange items Enterprise Vault does not include for sampling. These include **delivery reports, read receipts, out-of-office replies, quota warnings,** and **system messages**.

Two remaining fields within the chart, **StatisticalDiscard** and **DuplicationDiscard,** contain zero items. **StatisticalDiscard** is the total number of items that Enterprise Vault did not include for statistical sampling. This number is 0 if you chose guaranteed sampling. **DuplicationDiscard** is the number of items that were not sampled because they were duplicates of other items.

The 57 items listed in **SamplingPotential**, minus the 19 items discarded and excluded from review, results in 38 items remaining to **IngestToCA**. Note: If a customer deploys Compliance Accelerator 12.1 with EV 12.0, then the **SamplingSummary** dataset will not provide data for **DuplicationDiscard, StatisticalDiscard, ClassificationDiscard** and **MessageDiscard**. To see these property values,CA 12.1 must be installed with EV12.1.

Upon analyzing **SamplingSummary** (the view within EV), it is important to compare against **StatisticalSamplingSummary** or **GuranteedSamplingSummary** (the views within CA). The 38 items to **IngestToCA** is consistent across both datasets. The **GuaranteedSamplingSummary** pivot chart displayed in **Figure 92** breaks down the sum of 38 items to include 26 item**s RandomSampled** and 12 items **PolicySampled**.

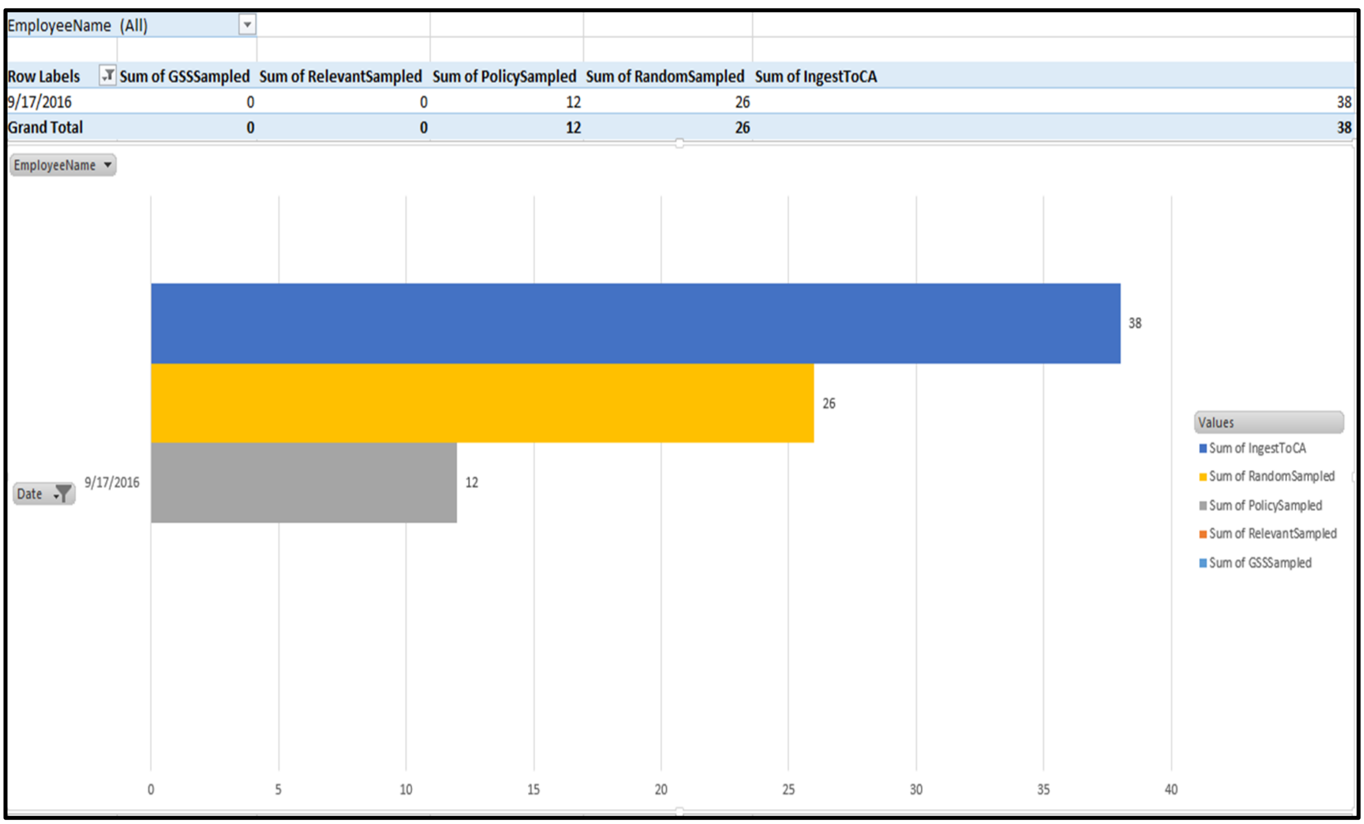


Figure 92 – Guaranteed Sampling Summary

In this case, a number of emails containing financial phrases such as **adjusted gross margin** and **earnings per share** were **PolicySampled** and automatically, explicitly included for review, due to the **evtag.inclusion** custom property.

Figure 93 – Classification Inclusion Policy

Two remaining fields within the chart, **RelevantSampled** and **GSSSampled,** contain zero items.

RelevantSampled applies if customers enable Intelligent Review in a department. When reviewers mark items as relevant or irrelevant, Compliance Accelerator can learn from the past reviewer actions. When a new batch of Unreviewed items is ready for review, the system can categorize these items as **Unreviewed\Relevant** or **Unreviewed\Irrelevant** based upon the marks of previous reviewers. This speeds up the review process for reviewers, who can spend more time focusing on the **Unreviewed\Relevant** items.

Figure 94 – Intelligent Review

RelevantSampled would be the number of items placed under the **Unreviewed/Relevant** filter of the CA Review pane. **GSSSampled** are the number of items sampled and captured based upon a guaranteed sample search.

Statistical Sampling Summary

Listed below is an example of comparative reporting between the **SamplingSummary** and **StatisticalSamplingSummary** reports.

The **SamplingSummary** pivot chart (**Figure 95**) shows that there is a **SamplingPotential** of 74 items. The number of items to **IngestToCA** is 54. The reason for the difference is that the Classification Engine discarded 12 items, as indicated by **ClassificationDiscard**, discarded six messages as indicated by **MessageDiscard** and excluded two items from review as indicated by **ClassificationExclude**. There were zero messages, for **StatisticalDiscard** and **DuplicationDiscard**.

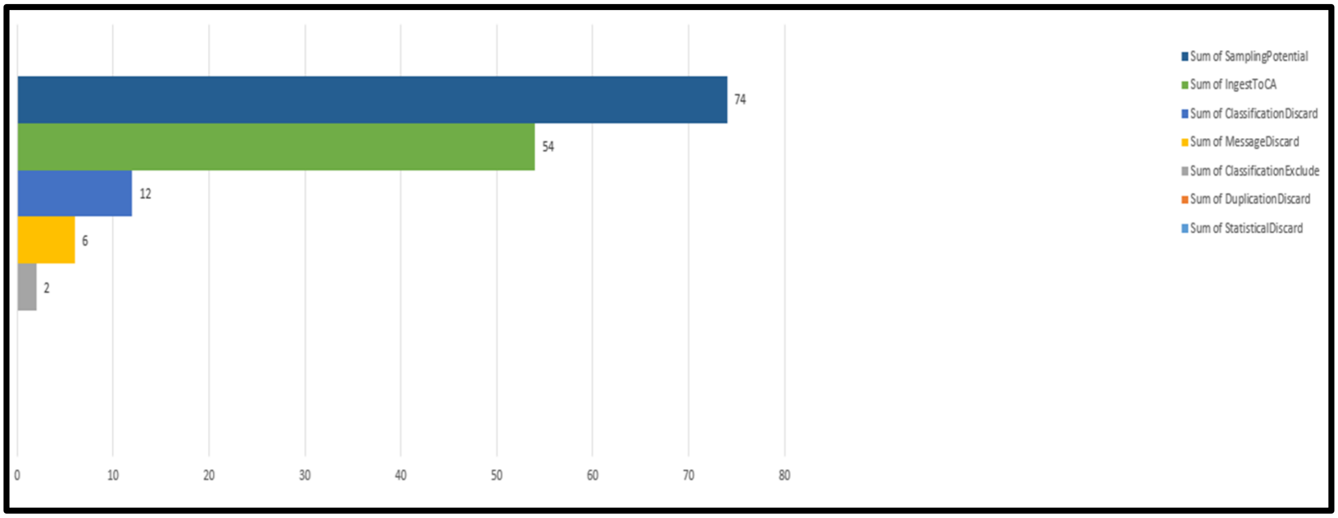


Figure 95 – Sampling Summary

Comparing the **SamplingSummary** report with the **StatisticalSamplingSummary** report (**Figure 96**), the number of items to **IngestToCA** is 54 items, the same in both reports. The number of **RandomSampled** items is 46 and the number of items included in the review set based on the **PolicySampled** is eight. These items the Classification engine marked with an **evtag.inclusion** property to ensure to include within the review set.

The number of **RelevantSampled** items is four. RelevantSampled applies if customers enable Intelligent Review in a department. When reviewers mark items as relevant or irrelevant, Compliance Accelerator can learn from their past actions. When a new batch of Unreviewed items is ready for review, the system can categorize these items as **Unreviewed\Relevant** or **Unreviewed\Irrelevant** based upon previous review actions. **RelevantSampled** would be the number of items placed under the **Unreviewed/Relevant** filter of the CA Review pane.

In this example, **CappingDiscard** is zero. By applying a cap, you can restrict the number of items included in the review set. In this instance, capping was not set.

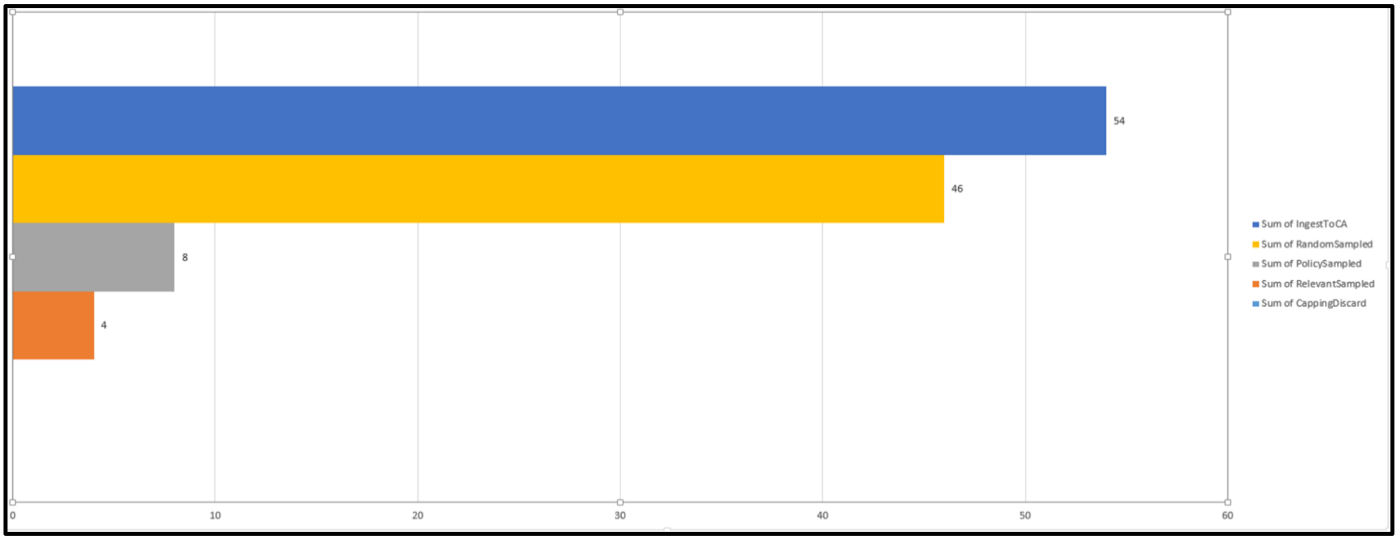


Figure 96 – Statistical Sampling Summary

Important: If guaranteed sampling or statistical sampling does not execute for some days, but Enterprise Vault continues adding data to CA, you may see some unexpected results. For example, with guaranteed sampling, the number of relevant captured items may exceed the sampling potential or the number of items to ingest to CA. To get a proper summary when sampling does not execute daily, fetch the report from last run sampling date to latest run sampling date

Comparative Reporting Workflow

The comparative reporting workflow moves through several stages.

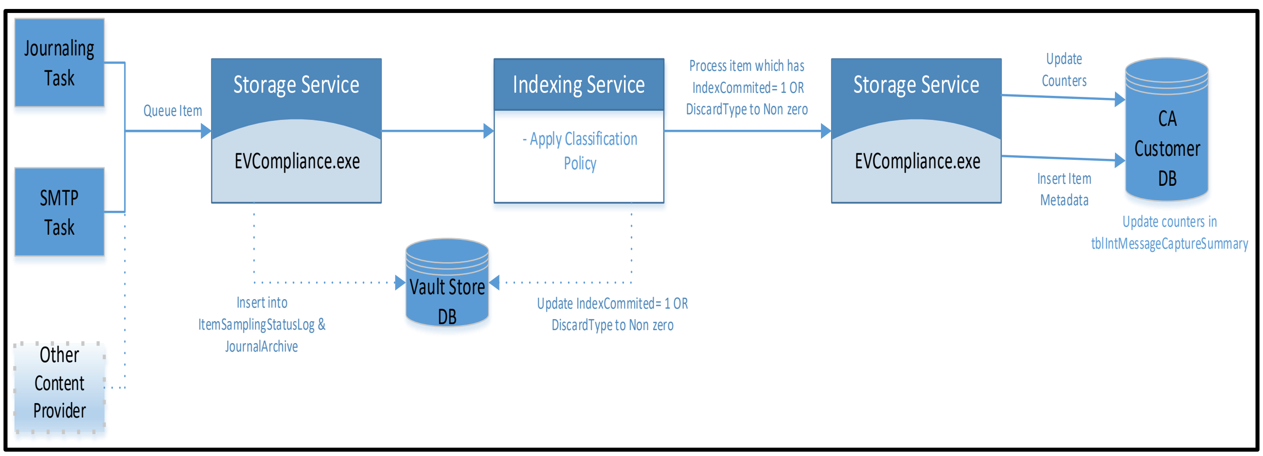


Figure 97 – Comparative Reporting Workflow

Journaling

The Exchange, Domino or SMTP Journaling Task will first archive the item and place it into the Storage queue.

Storage Service

The storage service will:

- Spawn **EVCompliance.exe** if the customer is running CA. **EVCompliance.exe** stamps the item with a CA indexable property and then waits until items are completely indexed and classified before proceeding.
- Store items in the **ItemSamplingStatusLog** table from EV vault store database.
- Add items to the **ItemSamplingStatusLog** table with a **DiscardType** value of **3**, if items are unsupported for sampling. Enterprise Vault does not include for sampling Exchange items such as **delivery reports, read receipts, out-of-office replies, quota warnings,** and **system messages**. These are identified in the reports as **MessageTypeDiscard** items.

Indexing Service

The Indexing service will:

- Index items and apply classification policies, if applicable.
- Set the **IndexCommited** column value to 1 in the **JournalArchive** table.
- If items have a **Classification Discard** policy, then items are marked with a **DiscardType** value of **2** in the **ItemSamplingStatusLog** table.
- If items are duplicates then items are marked with a **DiscardType** of **1** in the **ItemSamplingStatusLog** table.

Storage Service (EVCompliance.exe)

Once an item is indexed with IndexCommited = 1 or DiscardType <> 0, EVCompliance.exe will process items from the ItemSamplingStatusLog table in the following way, based upon the **DiscardType** and **CAPolicyAction** column values, and increment the following dataset counters.

DiscardType	CAPolicyAction	Counter Incremented
1		DuplicateDiscard
2		ClassificationDiscard
3		MessageTypeDiscard
	522	ClassificationExclude

Table 8 – ItemSamplingStatusLog

Note: Statistically discarding an item (only available in Statistical Sampling mode) increments the **StatisticalDiscard** counter.

12.1 DA Datasets

Enterprise Vault 12.1 introduces two new DA Datasets. The table below describes the new datasets. Appendix B provides a detailed listing of each new Dataset field.

Dataset	Description
SearchCriteria	Gives details of search criteria used in a particular search.
ItemDetails	Provides information on all the items in one or all of the cases that are associated with the specified customer database.

Table 9 – DA Datasets

Search Criteria

The SearchCriteria Dataset provides information such as the Date Range and search terms used within a search.

Item Details

The **ItemDetails** Dataset provides detailed information on each individual item, including the name of the archive where the item resides, the **MailDate** (the date the item was sent or received), **Author**, **Recipients**,

Subject, the **LatestMark** and the **LatestComment** a reviewer assigned to the item. Also included in the ItemDetails Dataset (just not displayed in the table below) is the **Customer** and **Case ID**, the item's **DAID** (a unique number associated with the item within DA), the **SaveSetID** and **ArchiveID** associated with the item.

ArchiveName	MailDate	Author	Recipients	Subject	LatestMark	LatestComment
Journal	10/26/2001 14:45	Dana Davis	Jim Meyn;Mark Davis	RE: Full Requirements - Due Dilligence Items	Relevant	possible violation
Journal	7/17/2005 11:03	Dennis Jobs	Bob@OtherCompany.Com.external;Joe User	ACME Corp Results	No Mark	
Journal	7/17/2005 11:08	AdminSupport@EnterpriseVault.com	Joe User	Re: Searching inside attachments	No Mark	
Journal	1/3/2002 14:12	Michael Scott	Vault Administrator	Public Folder slide show	No Mark	
Journal	7/17/2005 11:08	AdminSupport@EnterpriseVault.com	Joe User	Re: Searching inside attachments	No Mark	
Journal	7/17/2005 11:08	Bob@OtherCompany.Com.external	Dennis Jobs;Joe User	Re: ACME Corp Results	No Mark	

Figure 98 – ItemDetails Dataset

Microsoft SQL Server Reporting Services

You can also create custom reports using OData, accessing the DA and CA datasets from Microsoft SQL Server Reporting Services.

Go to the **SQL Server Reporting Services** home page and select **Report Builder**.

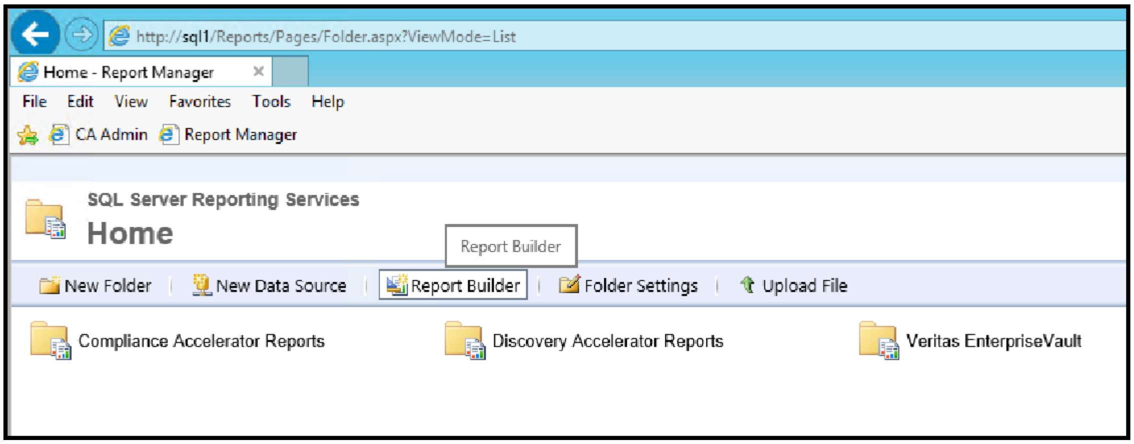


Figure 99 – Select Report Builder

If you receive the Getting Started Wizard, check **Don't show this dialog box at startup**, and click the red **X** at the top, right corner of the screen to exit out of the wizard.

Right-click on **Data Sources** and select **Add Data Source**.

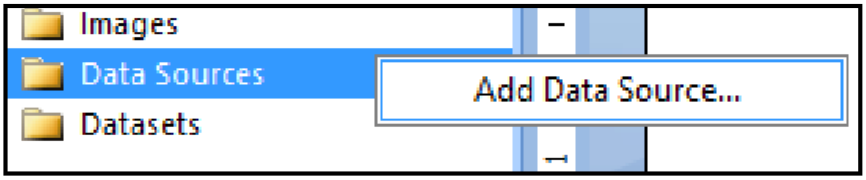


Figure 100 - Add Data Source

Type a description of the report under the **Name** field (e.g. **LegalHoldsDataSource**).

Select **Use a connection embedded in my request**

Under **Select connection type,** choose **XML**

In the **Connection string** box, enter the following:

http://*DAservername*/DAReporting/oData/LegalHolds(customerID=x)?$format=application/atom+xml

Replace **DAservername** with the name of your DA server. Replace the **x** after customerID=, with your customerID.

Note: Since Microsoft SSRS requires data in XML format, it is **mandatory** that every connection string you enter includes **?$format=application/atom+xml.**

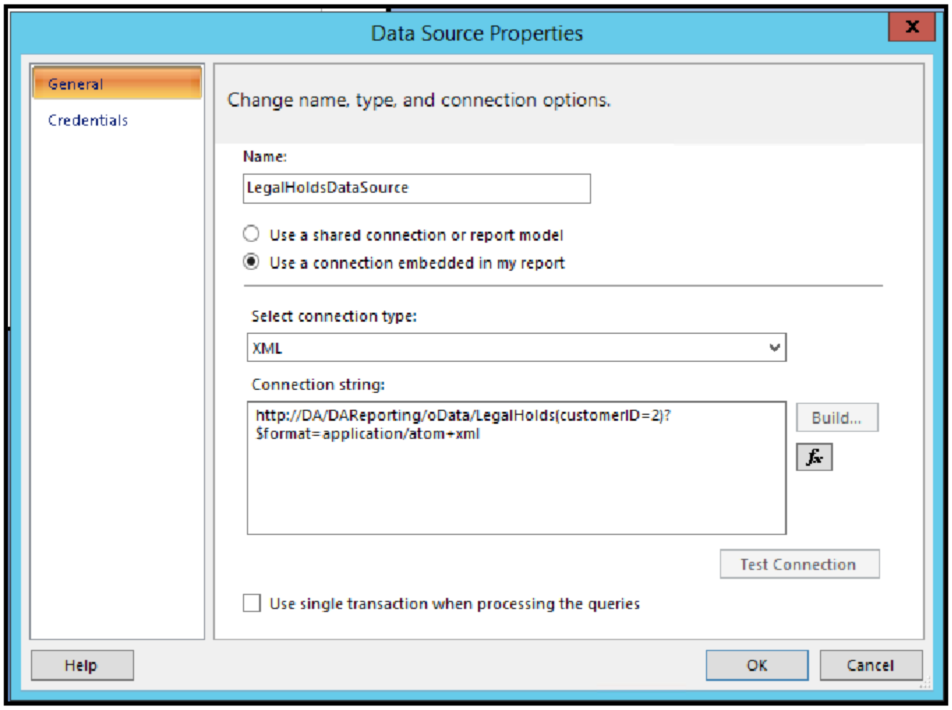


Figure 101 – Data Source Properties

Select **Credentials**

Select **Use this user name and password** and enter the account name and password with the appropriate permissions.

Check **Use as Windows Credentials**

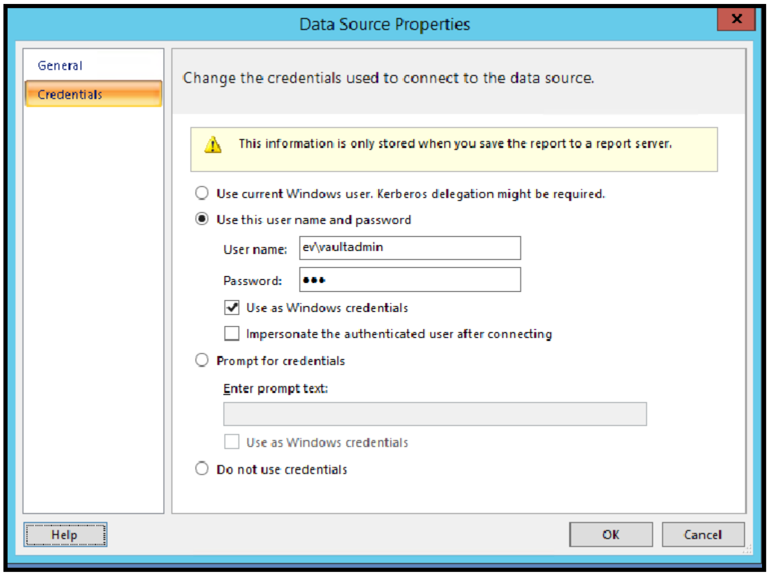


Figure 102 – Data Source Properties

Click **OK**.

Right-click **Datasets/Add Dataset**

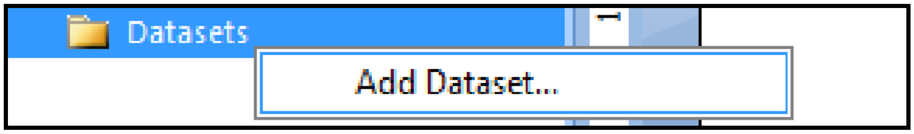


Figure 103 – Add Dataset

Add a description under the **Name** field for the newly created dataset (e.g. **LegalHoldsDataSet**).

Select **Use a dataset embedded in my report.**

Select the **Data source** created earlier (e.g. **LegalHoldsDataSource**).

Under query, enter the following:

<Query>

<ElementPath IgnoreNamespaces="true">

feed{}/entry{}/content{}/properties

</ElementPath>

</Query>

Click **OK.**

The properties under the newly created DataSet should now appear.

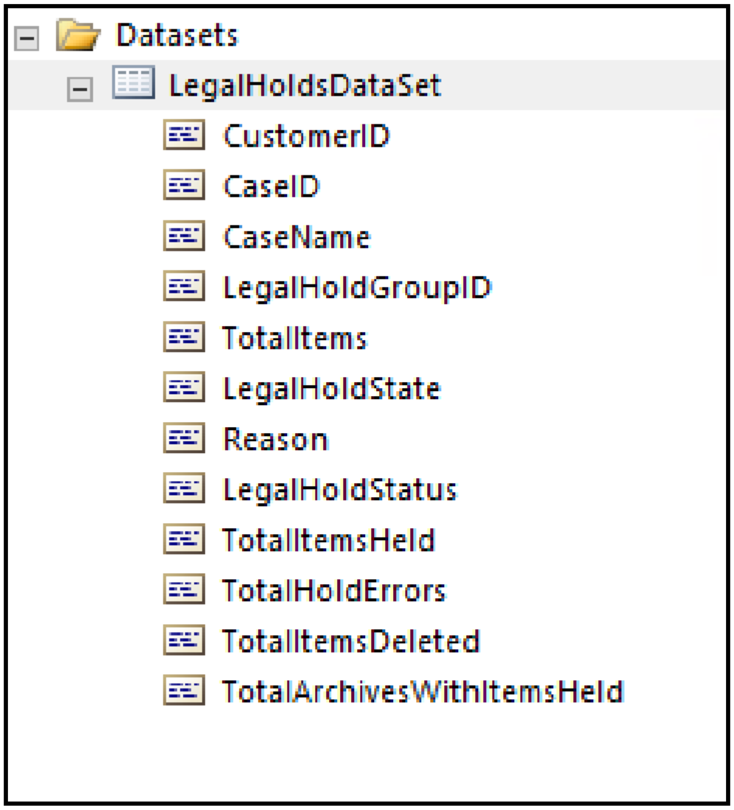


Figure 104 – Dataset Properties

Select **Insert/Chart/Chart Wizard.**

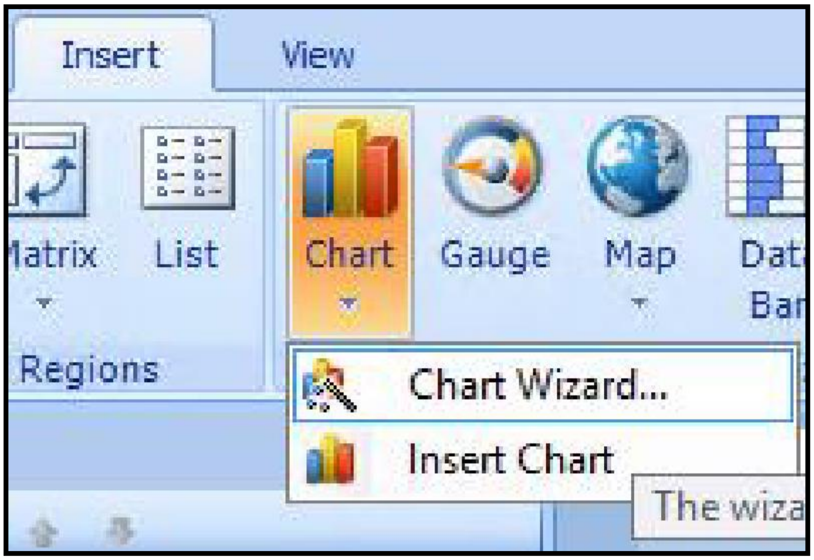


Figure 105 – Dataset Wizard

Highlight the newly created Dataset and click **Next.**

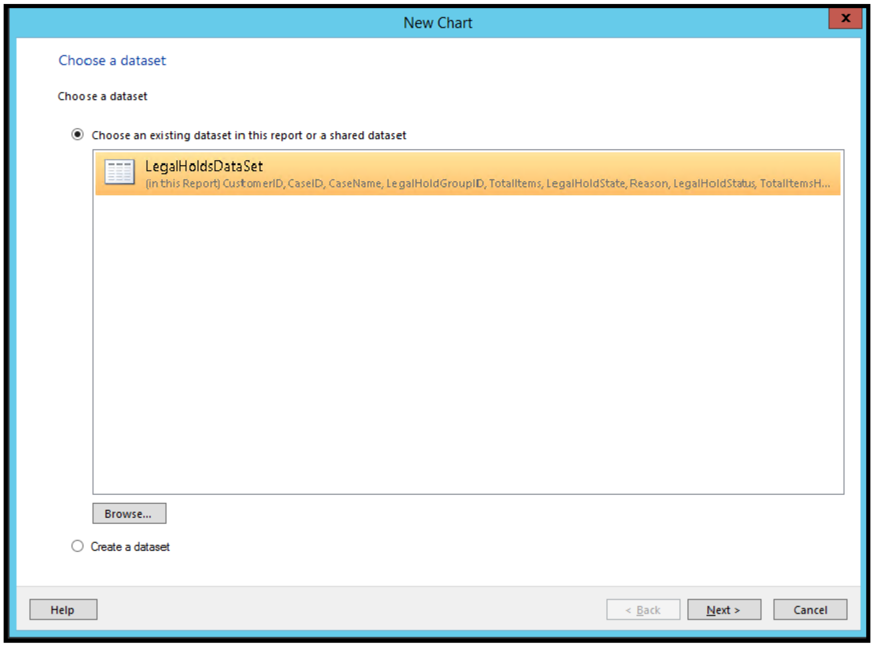


Figure 106 – Select the Dataset

Choose the appropriate chart type and select **Next.**

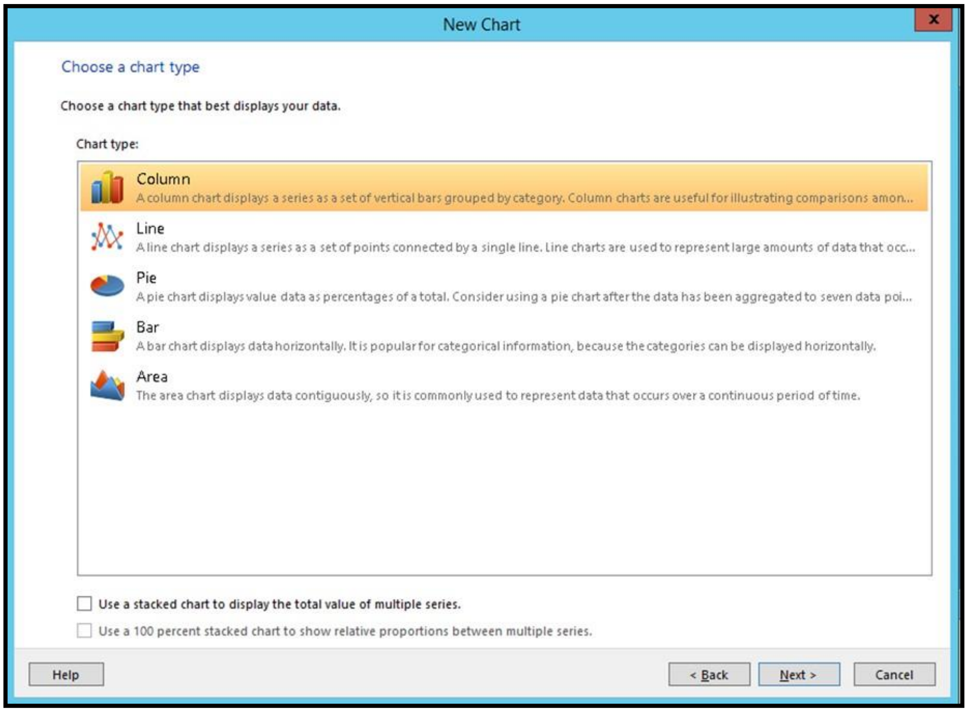


Figure 107 – Choose Chart Type

Drag the data fields under the appropriate boxes **Categories, Values,** and **Series** and click **Next**.

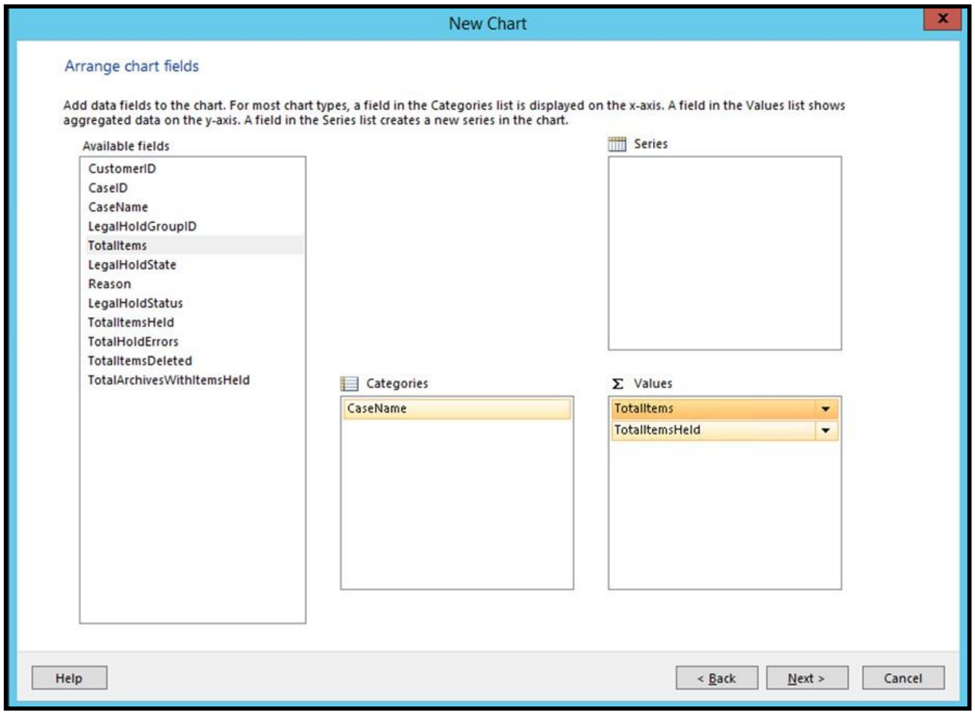


Figure 108 – Define the Chart

Right-click on the down arrows beside each value and add the appropriate aggregate functions and click **Next**.

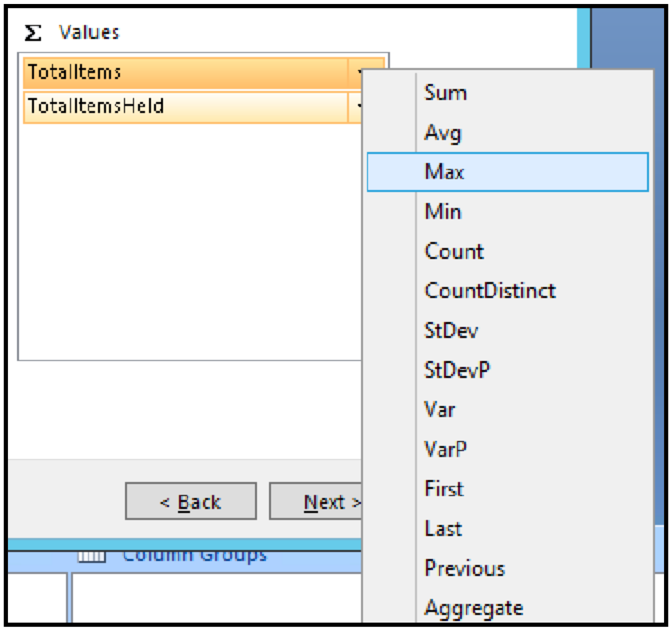


Figure 109 – Select Values

Choose the style for the Chart and click **Finish.**

Adjust the size of the chart and rename the chart appropriately.

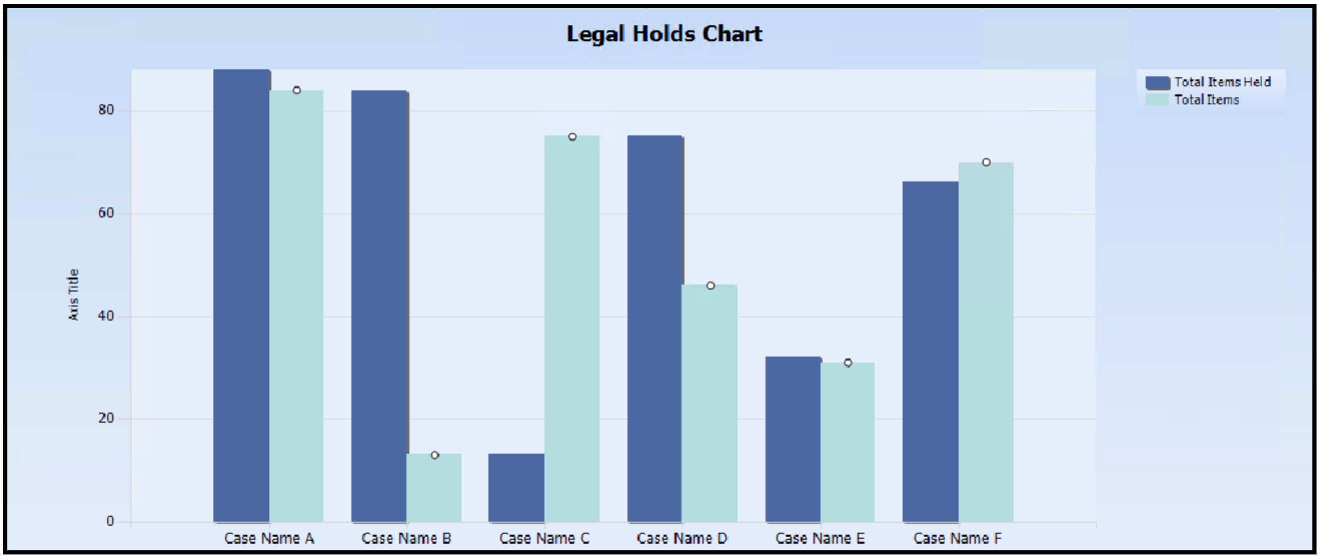


Figure 110 – Adjust Chart Size and Rename

Click **Run**.

The completed report displays.

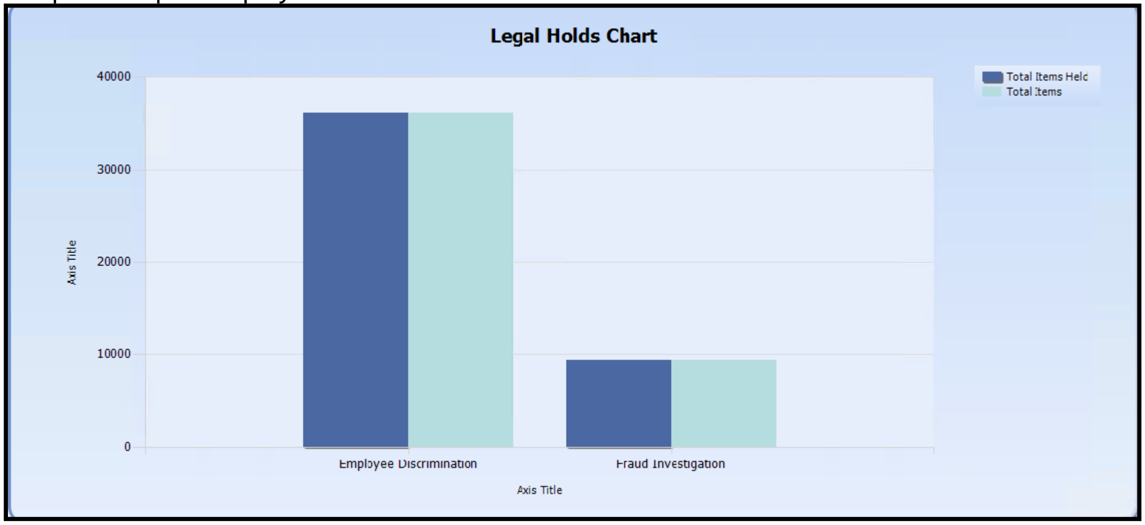


Figure 111 – Final Report

Save the report to the appropriate directory structure.

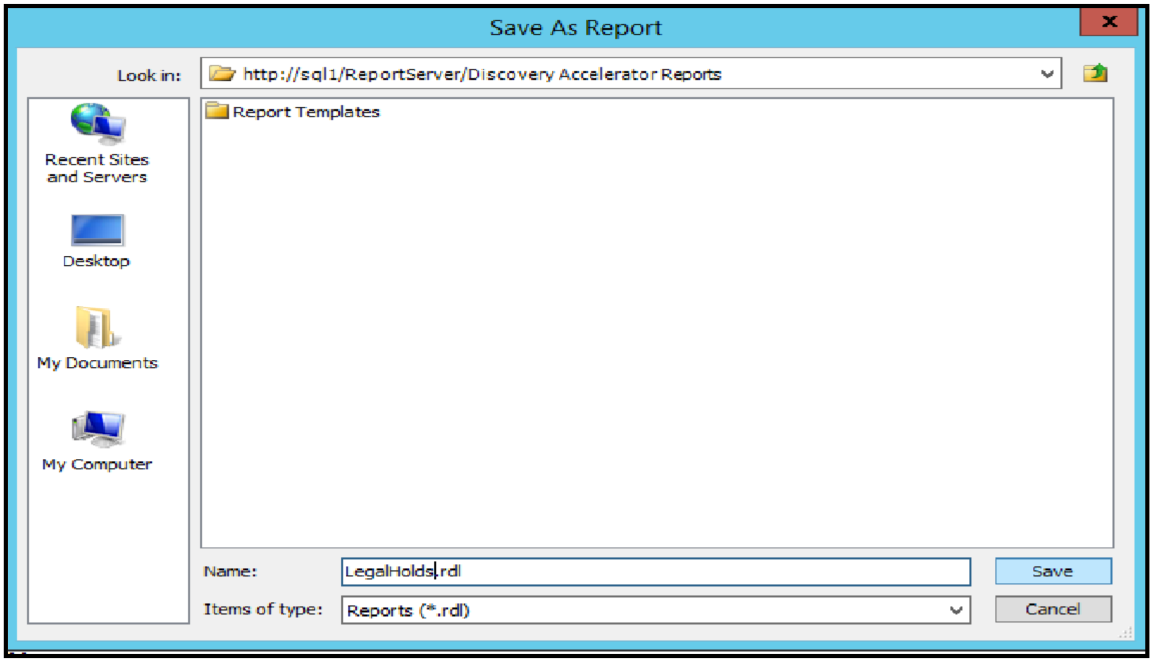


Figure 112 – Save Report

Appendix A: DA and CA Datasets

The tables in this appendix list each 12.0 DA and CA dataset, with the mandatory and optional parameters you can apply. Please refer to Appendix B for the five additional datasets introduced with the release of EV 12.1.

For a documented list of all datasets and mandatory and optional parameters to use when creating a query, go to http://***servername***/DAReporting or http://***servername***/CAReporting. Replace ***servername*** with the name of your DA or CA server. Expand **Help for Reporting Website** and select **Discovery Accelerator datasets** or **Compliance Accelerator datasets** (depending on whether you are on the DAReporting or CAReporting website.) Selecting a specific dataset will provide with examples, a detailed description of each dataset field, and parameters you can use.

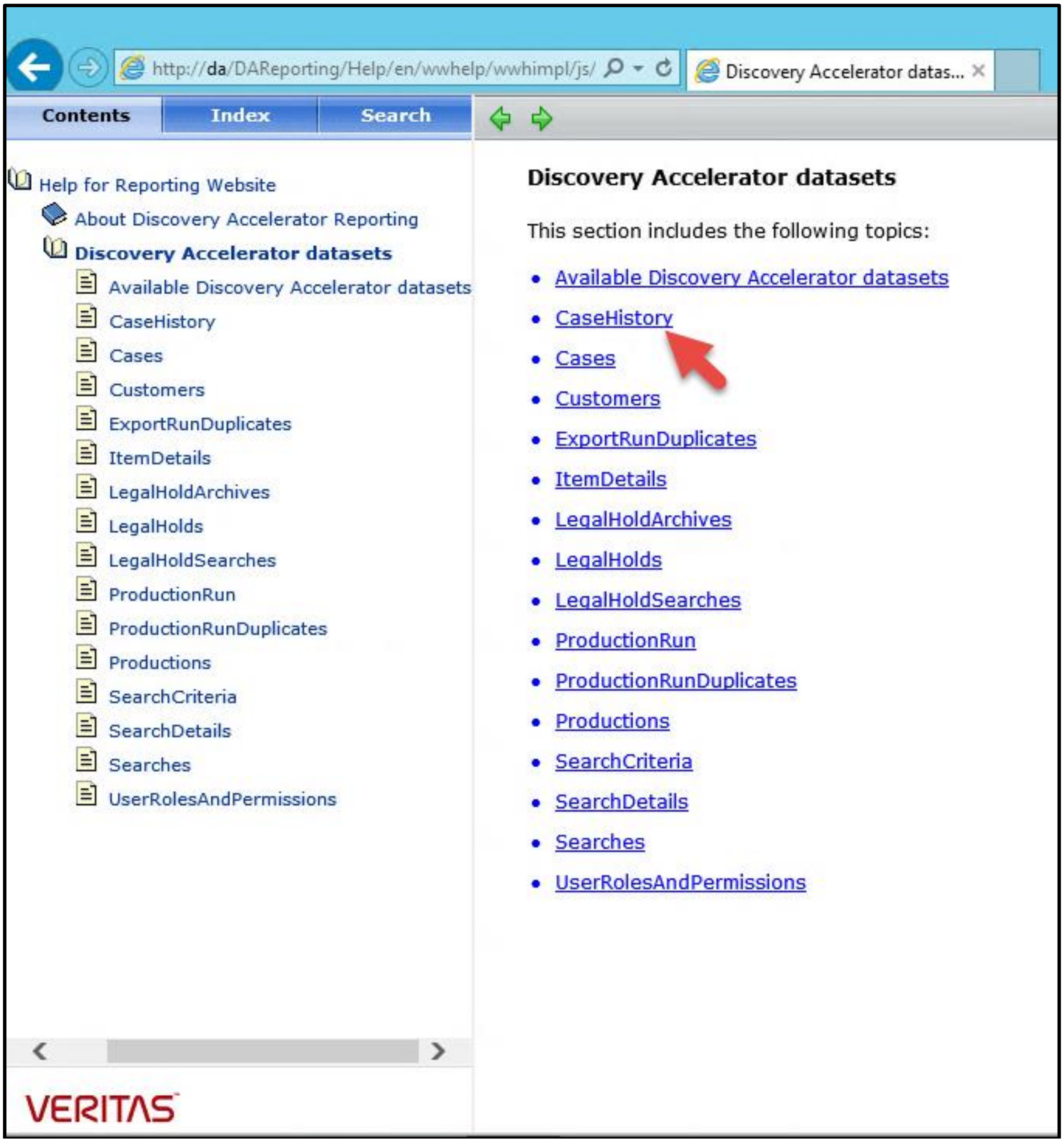


Figure 1 – Help for Reporting Website

Discovery Accelerator Datasets

The following is a table that details the DA datasets. The table lists each fieldname within the dataset, a description, the Data Type, and if the field is Nullable or not (= False, = True)

Cases - The Cases dataset contains information on all cases.

Field	Description	Data Type	Nullable
CustomerID	The identifying number Discovery Accelerator has assigned to the customer to which the case belongs.	Int32	✗
CaseID	The identifying number that Discovery Accelerator has assigned to the case.	Int32	✗
CaseName	The name that the creator of the case has assigned to it.	String	✓
StatusID	The Status ID of the case.	Int32	✗
CreatedDate	The creation date of the case.	DateTime	✗
ModifiedDate	The last modified date of the case.	DateTime	✗

CaseHistory - The CaseHistory dataset describes case-related parameters and details for the cases.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Discovery Accelerator has assigned to the customer.	Int32	✗
CaseID	The identifying number that Discovery Accelerator has assigned to the case.	Int32	✗
CaseName	The name that the creator of the case has assigned to it.	String	✓
TotalItemsInCase	The number of items in the case review set.	Int32	✗
ItemsProduced	The number of items produced with a Bates number.	Int32	✗
CreatedDate	The creation date of the case.	DateTime	✗

LegalHoldStatus	Whether the items in the case review set are on hold to stop users from deleting them from their Enterprise Vault archives.	String	✓
ItemsUnReviewed	The number of items in the case review set that reviewers have yet to mark.	Int32	✗
ItemsReviewed	The number of items in the case review set that reviewers have marked.	Int32	✗
ItemsQuestioned	The number of items in the case review set that have a status of Questioned.	Int32	✗
ItemsPending	The number of items in the case review set that have a status of Pending.	Int32	✗
ItemsAssigned	The number of items in the case review set currently assigned to reviewers for marking.	Int32	✗
ItemsUnassigned	The number of items in the case review set not currently assigned to reviewers for marking.	Int32	✗

Customers - The Customers dataset provides information on all customer databases.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Discovery Accelerator has assigned to the customer.	Int32	✗
CustomerName	The name of the customer.	Int32	✓
Directory DNS	The DNS name of the Enterprise Vault Directory service computer.	String	✓
SQLServer	The SQL Server on which the customer database resides.	String	✓
Database	The name of the customer database.	String	✓

ExportRunDuplicates - The ExportRunDuplicates dataset contains the same values as the "Export Run Duplicates" report. This report lists duplicate items that Discovery Accelerator has found because you chose to enable deduplication when you conducted an export run.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Discovery Accelerator has assigned to the customer.	Int32	✗
CaseID	The identifying number that Discovery Accelerator	Int32	✗

	has assigned to the case.		
ExportName	The name of the export run.	String	✓
ExportID	The identifying number that Discovery Accelerator has assigned to the export run.	Int32	✗
CompletionDate	The date and time at which the export run was completed.	DateTime	✓
DAID	The identifying number that Discovery Accelerator has assigned to the duplicate item.	Int32	✓
SaveSetID	The identifier of the saveset (.DVS) file that contains the duplicate item.	String	✓
ArchiveID	The identifier that Enterprise Vault has assigned to the archive in which the duplicate item is stored.	String	✓
ArchiveName	The name of the Enterprise Vault archive.	String	✓
Location	The location in the user's mailbox from which the item was archived.	String	✓
LatestReviewer	The reviewer to whom this duplicate item was assigned.	String	✓
LatestComment	The last comment that a reviewer has assigned to the duplicate item.	String	✓
MailDate	The date on which the duplicate item was sent.	DateTime	✓
Author	The author of the duplicate item.	String	✓
Recipients	The recipients of the duplicate item. This may not be a full list because it can contain up to 256 characters only.	String	✓
Subject	The subject line of the duplicate item.	String	✓
SearchName	The searches that match this duplicate item.	String	✓
DuplicateofExportedDAID	The identifying number of the item that this item duplicates.	Int64	✗

LegalHoldArchives - The LegalHoldsArchives dataset retrieves legal hold archive information for all cases.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Discovery Accelerator has assigned to the customer.	Int32	✗
CaseID	The identifying number that Discovery	Int32	✗

	Accelerator has assigned to the case.		
ArchiveID	The identifier that Enterprise Vault has assigned to the archive.	String	✓
ArchiveName	The name of the Enterprise Vault archive.	String	✓
VaultStore	The name of the vault store in which the archive is located.	String	✓
NumberOfItemsOnHold	The number of items on hold in the archive.	Int32	✗
EarliestDate	The earliest date on which the items on hold were sent and received.	DateTime	✓
LatestDate	The latest date on which the items on hold were sent and received.	DateTime	✓

LegalHolds - The LegalHolds dataset retrieves legal hold information for all cases.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Discovery Accelerator has assigned to the customer.	Int32	✗
CaseID	The identifying number that Discovery Accelerator has assigned to the case.	Int32	✗
CaseName	The name of the case.	String	✓
LegalHoldGroupID	The ID of the legal hold on the case.	String	✓
TotalItems	The number of items in the case review set.	Int32	✗
LegalHoldState	Whether the items in the case review set are on hold to stop users from deleting them from their Enterprise Vault archives.	String	✓
Reason	The reason why the items in the case have been placed on hold.	String	✓
LegalHoldStatus	The status of the legal hold such as "Idle", "Validating", "Need Repair", "Repairing", "Paused".	String	✓
TotalItemsHeld	The number of items that Discovery Accelerator has placed on hold.	Int32	✗
TotalHoldErrors	The number of items that Discovery Accelerator has temporarily been unable to place on hold.	Int32	✗
TotalItemsDeleted	The number of items that have been deleted from	Int32	✗

	the Enterprise Vault archives before Discovery Accelerator can place them on hold.		
TotalArchivesWithItemsHeld	The number of archives in which items have been placed on hold.	Int32	✖

LegalHoldSearches - The LegalHoldsSearches dataset retrieves legal hold search information for all cases.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Discovery Accelerator has assigned to the customer.	Int32	✖
CaseID	The identifying number that Discovery Accelerator has assigned to the case.	Int32	✖
SearchID	The identifying number that Discovery Accelerator has assigned to the search.	Int32	✖
SearchName	The name that the creator of the search has assigned to it.	String	✓
SearchDate	The date on which the search was run.	DateTime	✓
TotalHits	The total number of items that match the search criteria.	Int32	✖
TotalUniqueItems	The number of items that the search has retrieved that no other search in the case has retrieved.	Int32	✖
TotalUniqueItemsHeld	The number of unique items that Discovery Accelerator has placed on hold.	Int32	✖
TotalArchives	The number of Enterprise Vault archives that the search has queried.	Int32	✖

SearchDetails - The SearchDetails dataset retrieves the details of searches in all cases.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Discovery Accelerator has assigned to the customer.	Int32	✖
CaseID	The identifying number that Discovery Accelerator has assigned to the case.	Int32	✖

SearchID	The identifying number that Discovery Accelerator has assigned to the search.	Int32	✗
TemplateName	The search template name.	String	✓
ScheduleName	The name of the search schedule.	String	✓
SearchType	Whether the search ran immediately or at a scheduled time.	Int32	✗
ScheduleStart	The start date of the scheduled search.	DateTime	✓
ScheduleEnd	The end date of the scheduled search.	DateTime	✓
AutoAccept	Whether the search results are added to the review set automatically. Possible values are `true` and `false`.	Boolean	✗
OnlyNew	Whether the search results include the items that have previously been captured and added to the review set or only newly captured items. Possible values are `1` and `0`.	Int32	✗

Searches - The Searches dataset provides information on all case searches.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Discovery Accelerator has assigned to the customer.	Int32	✗
CaseID	The identifying number that Discovery Accelerator has assigned to the case.	Int32	✗
RunDate	The date and time at which the search was run.	DateTime	✓
SearchName	The name that the creator of the search has assigned to it.	String	✓
SearchID	The identifying number that Discovery Accelerator has assigned to the search.	Int32	✗
Status	The status of the search, such as Pending Acceptance, In Progress, Accepted, Failed, or Completed.	String	✓
NumberOfArchives	The number of archives that Discovery Accelerator has searched.	Int32	✓
PercentageComplete	The progress of the search, expressed as a	Int32	✗

	percentage value.		
NumberOfHits	The number of hits that the search has generated.	Int32	✓
NumberOfUniqueHits	The number of items that the search has retrieved that no other search in the case has retrieved.	Int32	✗
SearchSubName	The name of the Discovery Accelerator user who submitted the search.	String	✓

ProductionRun - The ProductionRun dataset retrieves the same values as the "Production Run" report. This report provides information on the items in each production run for a selected case.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Discovery Accelerator has assigned to the customer.	Int32	✗
CaseID	The identifying number that Discovery Accelerator has assigned to the case.	Int32	✗
ProductionName	The name that the initiator of the production run has assigned to it.	String	✓
ProductionID	The identifying number that Discovery Accelerator has assigned to the production run.	Int32	✗
CompletionDate	The date and time at which the production run was completed.	DateTime	✓
BatesID	The identifying Bates number or export number of the item.	String	✓
DAID	The identifying number that Discovery Accelerator has assigned to the item.	Int64	✓
SaveSetID	The identifier of the saveset (.DVS) file that contains the item.	String	✓
Status	How far the production of this item has progressed.	String	✓
ArchiveID	The identifier that Enterprise Vault has assigned to the archive in which the item is stored.	String	✓

ArchiveName	The name of the Enterprise Vault archive.	String	✓
Location	The location in the user's mailbox from which the item was archived.	String	✓
LatestReviewer	The reviewer to whom this item was assigned.	String	✓
LatestComment	The last comment that a reviewer has assigned to the item.	String	✓
MailDate	The date on which the item was sent.	DateTime	✓
Author	The author of the item.	String	✓
Recipients	The recipients of the item. This may not be a full list because it can contain up to 256 characters only.	String	✓
Subject	The subject line of the item.	String	✓
SearchName	The searches that match this item.	String	✓
NumberOfDuplicates	The number of items that Discovery Accelerator excluded from the production run because they are duplicates of or similar to other items.	Int32	✗

ProductionRunDuplicates - The ProductionRunDuplicates dataset retrieves the same values as the "Production Run Duplicates" report. This report lists duplicate items that Discovery Accelerator has found because you chose to enable deduplication when you conducted a production run.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Discovery Accelerator has assigned to the customer.	Int32	✗
CaseID	The identifying number that Discovery Accelerator has assigned to the case.	Int32	✓
ProductionName	The name that the initiator of the production run has assigned to it.	String	✓
ProductionID	The identifying number that Discovery Accelerator has assigned to the production run.	Int32	✗
CompletionDate	The date and time at which the production was completed.	DateTime	✓
DuplicateDAID	The identifying number that Discovery Accelerator has assigned to the duplicate item.	Int64	✗
DAID	The identifying number of the item that this item duplicates.	Int64	✓

SaveSetID	The identifier of the saveset (.DVS) file that contains the duplicate item.	String	✓
ArchiveID	The identifier that Enterprise Vault has assigned to the archive in which the duplicate item is stored.	String	✓
ArchiveName	The name of the Enterprise Vault archive.	String	✓
Location	The location in the user's mailbox from which the item was archived.	String	✓
LatestReviewer	The reviewer to whom this duplicate item was assigned.	String	✓
LatestComment	The last comment that a reviewer has assigned to the duplicate item.	String	✓
MailDate	The date on which the duplicate item was sent.	DateTime	✓
Author	The author of the duplicate item.	String	✓
Recipients	The recipients of the duplicate item. This may not be a full list because it can contain up to 256 characters only.	String	✓
Subject	The subject line of the duplicate item.	String	✓
SearchName	The searches that match this duplicate item.	String	✓

Productions - The Productions dataset retrieves the same values as the "Productions " report. This report provides information on the production runs that you have conducted for a selected case.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Discovery Accelerator has assigned to the customer.	Int32	✗
CaseID	The identifying number that Discovery Accelerator has assigned to the case.	Int32	✗
ProductionName	The name that the initiator of the production run has assigned to it.	String	✓
ProductionID	The identifying number that Discovery Accelerator has assigned to the production.	Int32	✗
CompletionDate	The date and time at which the production was completed.	DateTime	✓
TypeID	The identifying number that Discovery Accelerator has assigned to the type of run.	Int32	✗
Status	How far the production of this item has progressed.	String	✓

Type	Whether this is a production run or export run.	String	✓
BeginID	The identifying number of the first item in the production. -1 means None.	String	✓
EndID	The identifying number of the last item in the production. -1 means None.	String	✓
NumberOfItemsProduced	The number of items in the production run or export run.	Int32	✓
SearchName	The name of the search with which you selected the items for production or export.	String	✓
Mark	The name of the review mark with which you selected the items for production or export.	String	✓
ExcludeItems	The option for excluding duplicate or similar items that you selected when you defined the criteria for the production run or export run.	Int32	✓
NumberOfDuplicateItems	The number of items in the production run or export run that are duplicates of or similar to other items in the run.	Int32	✓
IncludeJournalRecipients	Whether you have chosen to include recipient information from the journal envelope of journal items.	Boolean	✓
ProductionLocation	The path to the folder on the file system where you can find the produced or exported items.	String	✓

UserRolesAndPermissions - The UserRolesAndPermissions dataset provides information on the users who have access to the selected case, and their associated roles and permissions.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Discovery Accelerator has assigned to the customer.	Int32	✗
CaseID	The identifying number that Discovery Accelerator has assigned to the case.	Int32	✗
RoleID	The identifying number that Discovery Accelerator has assigned to each role.	Int32	✗
RoleName	The security role in Discovery Accelerator.	String	✓
UserOrGroupName	The users who have access to this case and their roles within it.	String	✓

UserType	Type of user as defined in Discovery Accelerator.	String	✓
Status	Status of the role. Possible values are System (ID is 70), Folder Owner Role (ID is 78), Search (ID is 79), Review (ID is 320), and Export (ID is 321).	String	✓
AllowPermissions	The permissions that you have assigned to Discovery Accelerator users and groups with the specified role.	String	✓
DenyPermissions	The permissions that users and groups with the specified role cannot have, even if they occupy other roles that grant the permissions to them.	String	✓

Compliance Accelerator Datasets:

The following is a table that details the CA datasets. The table lists each fieldname within the dataset, a description, the Data Type, and if the field is Nullable or not (× = False, ✓ = True)

ActionStatusDetail - The ActionStatusDetail dataset provides a history of actions taken on a specific item by a reviewer.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Compliance Accelerator has assigned to the customer.	Int32	×
DepartmentID	The identifying number that Compliance Accelerator has assigned to the department.	Int32	×
ItemID	The identifying number that Compliance Accelerator has assigned to the item.	Int64	×
Date	The date and time when the status was marked.	DateTime	×
ActionStatus	The status of the message.	String	✓
Reviewer	The name of the reviewer.	String	✓

Customers - The Customers dataset provides information about the SQL database in which Compliance Accelerator stores details of departments, user roles, search results, and more.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Compliance Accelerator has assigned to the customer.	Int32	×

CustomerName	The name of the customer.	String	✓
DirectoryDNS	The DNS name of the Enterprise Vault Directory service computer.	String	✓
SQLServer	The SQL Server on which the customer database resides.	String	✓
Database	The name of the customer database.	String	✓

Departments - The Departments data model contains information on all cases across all department databases.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Compliance Accelerator has assigned to the customer that belongs to the customer.	Int32	✗
DepartmentID	The identifying number that Compliance Accelerator has assigned to the department.	Int32	✗
DepartmentName	The name of the department.	String	✓
Status	The status of the department whether Open or Closed.	String	✓
CreatedDate	The creation date of the department.	DateTime	✗
ModifiedDate	The modified date of the department.	DateTime	✗

DifferentialSamplingSummaryByDepartment – The

DifferentialSamplingSummaryByDepartment dataset returns the same values as the "Differential Sampling Summary by Department" report. For the selected sampling period, the Differential Sampling Summary by Department report summarizes the sampling activity for the monitored employees in selected departments.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Compliance Accelerator has assigned to the customer.	Int32	✗
DepartmentID	The identifying number that Compliance Accelerator has assigned to the department.	Int32	✗
EmployeeName	The display name of the employee.	String	✓
EmployeeID	The ID of the employee.	Int32	✓
PolicySampled	The total number of items sampled by policy.	Int32	✗

SearchSampled	The total number of items sampled by search.	Int32	✗
SearchDuplicates	The total number of duplicate items found by search.	Int32	✗
RandomSampled	The total number of items sampled by random sampling.	Int32	✗
TotalSampled	The total number of items sampled by policy, search, and random sampling.	Int32	✗
TotalMessages	The total number of items.	Int32	✗

EscalationHistory - The EscalationHistory dataset shows the escalation history for a specific item.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Compliance Accelerator has assigned to the customer.	Int32	✗
DepartmentID	The identifying number that Compliance Accelerator has assigned to the department.	Int32	✗
ItemID	The identifying number that Compliance Accelerator has assigned to the item.	Int64	✗
Date	The date and time when the Note/comment was added.	DateTime	✗
Action	The action taken by the reviewer.	String	✓
Reviewer	The name of the reviewer.	String	✓
OnBehalfOf	The name of the principal reviewer or supervisor for whom the user is acting as a delegate.	String	✓

ItemAgingByDepartment - The ItemAgingByDepartment dataset returns the same values as the "Item Aging by Department" report. For the selected departments, this report shows the number of items that are either still un-reviewed or pending review. The report also gives an indication of how long each item has awaited review since it was first captured.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Compliance Accelerator has assigned to the customer.	Int32	✗
DepartmentID	The identifying number that Compliance Accelerator has assigned to the department.	Int32	✗

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MessagesInCaptureRange0to29Days	The number of messages captured in last 0-29 days and are either still unreviewed or pending review.	Int32	✘
MessagesInCapture Range30to59Days	The number of messages captured in last 30-59 days and are either still unreviewed or pending review. Range 30 to 59 days	Int32	✘
MessagesInCaptureRange60to89Days	The number of messages captured in last 60-89 days and are either still unreviewed or pending review.	Int32	✘
TotalMessages	The total number of messages.	Int32	✘

QuestionedItemsByDepartment – The QuestionedItemsByDepartment dataset returns the same values as the "Questioned Items by Department" report. For each department, this report gives a summary of the suspect items (those items that reviewers have marked as Questioned).

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Compliance Accelerator has assigned to the customer.	Int32	✘
DepartmentID	The identifying number that Compliance Accelerator has assigned to the department.	Int32	✘
ItemID	The identifying number that Compliance Accelerator has assigned to the item.	Int64	✘
SentDate	The date and time the item was sent.	DateTime	✓
Comment	The last comment the reviewer added to the item.	String	✓
Sender	The person who sent the item.	String	✓
Recipients	The recipients of the item. Compliance Accelerator lists all the recipients, if possible, but it may truncate the list when there are a large number of recipients.	String	✓

ReviewActivitySummary - The ReviewActivitySummary dataset returns the same values as the "Review Activity Summary by Department" report. This report shows the total number of items of each type that Compliance Accelerator has captured in the selected reporting period. The report also shows the review status of these items.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Compliance Accelerator has assigned to the customer.	Int32	✘

DepartmentID	The identifying number that Compliance Accelerator has assigned to the department.	Int32	✗
MTID	Message type ID	Int32	✗
MessageType	The types of items that Compliance Accelerator may add to the review set. For Exchange, fax, Domino, and SMTP, the report shows three item types: • Internal: The items where the author and all recipients are internal to the organization. • External Inbound: The items where the author is external to the organization and at least one recipient is internal. • External Outbound: The items where the author is internal to the organization and at least one recipient is external.	String	✓
Unreviewed	The number of items in the case review set that reviewers have yet to mark.	Int32	✗
Reviewed	The number of items in the case review set that reviewers have marked.	Int32	✗
Pending	The number of items in the case review set that have a status of Pending.	Int32	✗
Questioned	The number of items in the case review set that have a status of Questioned.	Int32	✗
ReviewedRelevant	The number of reviewed items that are marked as relevant.	Int32	✓

ReviewerActivityByDepartment – The ReviewerActivityByDepartment dataset returns the same values as the "Reviewer Activity by Department" report. For each department, this report shows the status of review set items, including how many items have been escalated, questioned, reviewed, and un-reviewed.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Compliance Accelerator has assigned to the customer.	Int32	✗
DepartmentID	The identifying number that Compliance Accelerator has assigned to the department.	Int32	✗
Status	The status of the reviewed item.	String	✓
Mark	Name of marking such as "Questioned", "Reviewed Relevant", or "Reviewed Irrelevant".	String	✓
Messages	Total number of messages with corresponding Status	Int32	✗

	and Mark.		

ReviewerActivityByDepartmentDetailed – The ReviewerActivityByDepartmentDetailed dataset returns more details of the "Reviewer Activity by Department" report. For each department, this report shows the status of review set items, including how many items are questioned, reviewed, and un-reviewed.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Compliance Accelerator has assigned to the customer.	Int32	✗
DepartmentID	The identifying number that Compliance Accelerator has assigned to the department.	Int32	✗
ItemID	The identifying number that Compliance Accelerator has assigned to the item.	Int64	✗
Status	The status of the reviewed item.	String	✓
Author	The author of the item.	String	✓
Subject	The subject line of the item.	String	✓
Direction	The direction of the message whether internal, external inbound, or external outbound.	String	✓
MessageType	The message type whether internal, external inbound, or external outbound.	String	✓
Mark	Name of marking such as "Questioned", "Reviewed Relevant", or "Reviewed Irrelevant".	String	✓

ReviewerActivityByReviewer - The ReviewerActivityByDepartment dataset shows the status of the review set items for each reviewer.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Compliance Accelerator has assigned to the customer.	Int32	✗
DepartmentID	The identifying number that Compliance Accelerator has assigned to the department.	Int32	✗
Status	The status of the reviewed item.	String	✓
Mark	The marking status ("Questioned", "Reviewed Relevant", or "Reviewed Irrelevant") and escalation status ("Escalated").	String	✓
ReviewerName	The name of the reviewer.	String	✓
ReviewerLogi	The login name of the reviewer.	String	✓

nName			
Total	The total number of items with the given status and marking for the specific reviewer.	Int32	×

ReviewerActivityDetail – The ReviewerActivityDetail dataset returns the same values as the "Reviewer Activity Detail" report. This report shows the status of the review set items for each reviewer for each department.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Compliance Accelerator has assigned to the customer.	Int32	×
DepartmentID	The identifying number that Compliance Accelerator has assigned to the department.	Int32	×
Reviewer	The name of the reviewer.		✓
MarkID	The mark ID. Possible values are 1 (Unreviewed), 2 (Pending), 3 (Questioned), 5 (Reviewed Irrelevant), 6 (Reviewed Relevant).	Int32	×
StatusID	The ID of the status of marking. Possible values are 1 (Unreviewed), 2 (Pending), 3 (Reviewed), 4 (To Produce), 5 (Produced), 6 (Questioned), 7 (Ready to produce), 8 (Producing), 9 (In production), 10 (Start production).	Int32	×
Mark	The mark on the item such as "Unreviewed", "Pending", "Questioned", "Reviewed Irrelevant", and "Reviewed Relevant".	String	✓
Status	The mark status such as "Unreviewed", "Pending", "Reviewed", "To Produce", "Produced", "Questioned", "Ready to produce", "Producing", "In production", and "Start production".	String	✓
Messages	Total number of messages with corresponding Status and Mark.	Int32	×
OnBehalfOf	The name of the principal reviewer or supervisor for whom the user is acting as a delegate.	String	✓
DelegationFlag	Further defines the meaning of the value in OnBehalfOf. There are three possible values: • B: Indicates that the person specified in the Reviewer field has reviewed messages from the	String	✓

	review set of the person specified in the OnBehalfOf field. • T: Indicates that the person specified in the OnBehalfOf field has reviewed messages from the review set of the person specified in the Reviewer field. • U: Indicates that the person specified in the OnBehalfOf field should be ignored.		

ReviewerActivityItemDetailed – The ReviewerActivityItemDetailed dataset returns the detailed information of the "Reviewer Activity Detail" report. This report shows the status of the review set items for each reviewer.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Compliance Accelerator has assigned to the customer.	Int32	✘
DepartmentID	The identifying number that Compliance Accelerator has assigned to the department.	Int32	✘
ItemID	The identifying number that Compliance Accelerator has assigned to the item.	Int64	✘
Mark	The marking status ("Questioned", "Reviewed Relevant", or "Reviewed Irrelevant") and escalation status ("Escalated").	String	✓
Reviewer	The name of the reviewer.	String	✓
DataType	The review type. 0 indicates Standard review and 1 indicates Escalation review.	Int32	✘
ActionStatus	The status of the action such as "Reviewed", "Escalated", or "Pending".	String	✓
MessageAuthor	The author of the message.	String	✓
Subject	The subject of the message.	String	✓
MailDate	The date on which the item was sent.	DateTime	✓
OnBehalfOf	The name of the principal reviewer or supervisor for whom the user is acting as a delegate.	String	✓
DelegationFlag	Indicates if the record is delegated for review or not. Possible values are, 'U' - undelegated review; 'T' - item is reviewed by delegates; and 'B' - marked by original reviewer for delegated reviews. For delegated reviews, there can be two records for the same item. 'T' - if marked	String	✓

	by the delegate and 'B' - if marked by the original reviewer.		

ReviewerNotes - The ReviewerNotes dataset provides information about notes reviewers have added for a specific item including the note text.

Field	Description	Data Type	Nullable
CustomerID	The identifying number that Compliance Accelerator has assigned to the customer.	Int32	×
DepartmentID	The identifying number that Compliance Accelerator has assigned to the department.	Int32	×
ItemID	The identifying number that Compliance Accelerator has assigned to the item.	Int64	×
DateAndTime	The date and time when the note was added.	DateTime	×
Reviewer	The name of the reviewer.	String	✓
ReviewersNote	The actual text of the note.	String	✓

Appendix B: 12.1 Datasets

Listed below are the five new Enterprise Vault 12.1 DA and CA Datasets and the mandatory and optional parameters to use when performing the queries. Please note that the syntax in these examples is case-sensitive except for the server name. Always specify a **customerID** when accessing these datasets.

12.1 Discovery Accelerator Datasets

SearchCriteria

The **SearchCriteria** dataset gets information on one or all of the searches that have been conducted in one or all of the cases.

How to access

http://server_name/DAReporting/OData/SearchCriteria(customerID=1,caseID=3,searchID=10)

Returns the values for a specific search whose ID is 10 and a case with an ID of 3.

Parameter	Description
`customerID`	Mandatory. Specifies the customer for which you want information.
`caseID`	Optional. Indicates the particular case belonging to the specified customer for which you want information. If this parameter is not specified, the query fetches information for all the cases for the specified customer.
`searchID`	Optional. Indicates the search for which you want information. If this parameter is not specified, the query fetches information for all the searches for the specified caseID. If the caseID is not specified, the query fetches information about all the searches in all the cases for the specified customer.

Table 1 – SearchCriteria Parameters

Field	Type	Description
SearchType	String	Specifies whether the search ran immediately or at a scheduled time.
AutomaticallyAcceptSearchResults	Boolean	Specifies whether the option to automatically accept the search results into the review set was selected when configuring the search criteria.
IncludeItemsAlreadyInReview	Boolean	Specifies whether the search results included the items that you have previously captured and added to the review set.
BasedOnSearch	String	Specifies whether this search was based on an existing search.
DateRange	DateTime	The date range that was specified in the search criteria.
SearchTerms		
Field	String	The search criteria that Discovery Accelerator used to search for items. Possible values are From, To, To or from, Subject, Content, Subject or Content, and All.
Values	String	The words or phrases that Discovery Accelerator searched for.

Operator	String	The operator that was used to search the specified keywords. Possible values are Any of and All of.
AttachmentCriteria		
Count	Integer	The required number of attachments that the item must have to be considered for this search.
Extensions	String	The file name extensions of particular types of attachments on which items were searched.
MiscellaneousCriteria		
IncludeNonIndexedItems	Boolean	Specifies whether non-indexed items were considered in the search results, such as binary files and encrypted mail items.
MessageSize	Int32	The size in kilobytes of each item that was specified as the basis for this search. The item size includes the size of any attachments.
MessageTypes	String	The message type that was searched for. Possible values are Exchange, IM, Bloomberg, and Fax.
RetentionCategories	String	The retention category that was specified as the basis for this search.
SiteName	String	The name of the Enterprise Vault site.
Policies		
SearchPolicyType	String	The classification policies that were used for this search. Possible values are Inclusion, Exclusion, and Category.
PolicyName	String	The name of the policy.
PolicyType	String	The classification policies that were used to search for the items. Possible values are All, Ignore exclusions, Inclusions only, Exclusions only, Categories only, Ignore inclusions, and Ignore inclusions and exclusions.
CustomAttributes		
CustomAttribute	String	The name of the custom attribute.
Operator	String	The operator that was used to search the specified keywords. Possible values are Any, All, Exact, and Phrase.
Values	String	The words or phrases that Discovery Accelerator searched for.
SearchID	Int32	The identifying number that Discovery Accelerator has assigned to the search.
Name	String	The name that the creator of the search has assigned to it.
CaseID	Int32	The identifying number that Discovery Accelerator has assigned to the case.
RunDate	DateTime	The date and time at which the search was run.

Table 2 – SearchCriteria Fields

ItemDetails

For the specified customer database, the **ItemDetails** dataset gets information on the items in one or all of the cases.

How to access:
http://server_name/DAReporting/OData/ItemDetails(customerID=1)
Returns the details for all the cases associated with the customer whose ID is 1.

http://server_name/DAReporting/OData/ItemDetails(customerID=1,caseID=10)
Returns the details for case ID 10 associated with the customer whose ID is 1.

Parameter	Description
customerID	Mandatory. Specifies the customer for which you want information.
caseID	Optional. Indicates the particular case belonging to the specified customer for which you want information. If this parameter is not specified, the query fetches information for all the cases for the specified customer.

totalCount	Optional. Returns the `ItemCount` dataset, which provides the total count of records for the specified query along with the date and time when the query was executed in *yyyy-mm-dd hh:mm:ss* format. Possible values are`true` or `false`. The default value is `false`.
	For example,
	`.../ItemDetails(customerID=2,totalCount=true)`
	returns the following output
	`"odata.type":"EnterpriseVault.Reporting.DiscoveryAccelerator.ItemCount","TotalCount":"4256,"TimeStamp":"2016-05-26T03:41:19.617"`

startFrom	Optional, must be used with `recordsPerFetch`. Indicates the starting number of the record from the batch of records to be returned. Default value is 1. For example, for 350 records with `recordsPerFetch` specified as 100 you must run the query as follows to get all the records: • `.../ItemDetails(customerID=6,startFrom=1,recordsPerFetch=100)` - returns records from 1 to 100 • `.../ItemDetails(customerID=6,startFrom=101,recordsPerFetch=100)` - returns records from 101 to 200 • `.../ItemDetails(customerID=6,startFrom=201,recordsPerFetch=100)` - returns records from 201 to 300 • `.../ItemDetails(customerID=6,startFrom=301,recordsPerFetch=100)` - returns records from 301 to 350
recordsPerFetch	Optional, must be used with `startFrom`. Indicates the batch size of records to be returned per fetch. Default value is 100000. Note that if the size of records is large, this query may fail to fetch the records. If the total number of records exceeds the count specified in recordsPerFetch, the web service displays a next page link to get to the next set of records. The last set of records does not contain any next link. For example, for 350 records with `recordsPerFetch` specified as 100, the web service returns the following next page links on each successive screen `],"odata.nextLink":"http://localhost/dareporting/oData/ItemDetails(customerID=1,startFrom=101,recordsPerFetch=100)"` This URL returns records from 101 to 200.

	`],"odata.nextLink":"http://localhost/dareporting/oData/ItemDetails(customerID=1,startFrom=201,recordsPerFetch=100)"`
	This URL returns records from 201 to 300.
	`],"odata.nextLink":"http://localhost/dareporting/oData/ItemDetails(customerID=1,startFrom=301,recordsPerFetch=100)"`
	This URL returns records from 301 to 350.

Table 3 – ItemDetails Parameters

Field	Type	Description
CustomerID	Int32	The identifying number that Discovery Accelerator has assigned to the customer.
CaseID	Int32	The identifying number that Discovery Accelerator has assigned to the case.
DAID	Int64	The identifying number that Discovery Accelerator has assigned to the item.
SaveSetID	String	The identifier of the saveset `(.DVS)` file that contains the item.
ArchiveID	String	The identifier that Enterprise Vault has assigned to the archive in which the item is stored.
ArchiveName	String	The name of the Enterprise Vault archive.
MailDate	DateTime	The date on which the item was sent or received.
Author	String	The email address of the person who sent the item.
Recipients	String	The recipients of the item. This may not be a full list because it can contain up to 256 characters only.
Subject	String	The subject line of the item.
LatestMark	String	The last mark that a reviewer has assigned to the item.
LatestComment	String	The last comment that a reviewer has assigned to the item.

Table 4 – ItemDetails Fields

12.1 Compliance Accelerator Datasets

SamplingSummary

The **SamplingSummary** dataset provides the statistical information of items that Enterprise Vault has processed for sampling by Compliance Accelerator. This information includes the number of items that were considered for sampling and the number of items that were sent to Compliance Accelerator after Enterprise Vault processed the items based on classification rules.

How to access
http://server_name/CAReporting/OData/SamplingSummary(customerID=2,departmentID=8,dateFrom=2014-04-10,dateTo=2014-05-10)

Returns the daily statistics of items that were sampled by Enterprise Vault for each monitored employee for the specified department and date range.

Parameter	Description
`customerID`	Mandatory. Specifies the customer for which you want information.
`departmentID`	Optional. Indicates the particular department belonging to the specified customer for which you want information. If this parameter is not specified, the query fetches information for all the departments for the specified customer.

dateFrom	Optional, must be used with `dateTo`. Indicates the start date of the date range you want to fetch records for. The date should be in YYYY-MM-DD format. The default start date is one year before the date on which the query is run.
dateTo	Optional, must be used with `dateFrom`. Indicates the end date of the date range you want to fetch records for. The date should be in YYYY-MM-DD format. The default value is the date when the query is run.

Table 5 – SamplingSummary Parameters

Field	Type	Description
CustomerID	Int32	The identifying number that Compliance Accelerator has assigned to the customer.
DepartmentID	Int32	The identifying number that Compliance Accelerator has assigned to the department.
Date	DateTime	The date when Enterprise Vault processed the items belonging to this employee.
EmployeeID	Int32	The ID of the employee.
EmployeeName	String	The display name of the employee.
ItemTypeID	Int32	The message type ID, which specifies the message content source along with the direction. Possible values are 0 (NotSpecified), 1 (Exchange), 2 (InstantMessaging), 3 (Bloomberg), 4 (Fax), 5 (Lotus), 6 (FSA), 7 (SMTP), 8 (Sharepoint), 9 (Social), and 10 (IMAP).
Direction	String	The direction of the message (internal, external inbound, or external outbound).
CaptureType	Int32	Specifies the reason for which the item is considered for sampling. Possible values are as follows: • 2 : Indicates that items are randomly captured.. • 6 : Indicates that the item is sampled and captured based on guaranteed sample search. • 10 : Indicates that the item is sampled and considered as a duplicate during guaranteed sample search results deduplication. • 99: Indicates that the item is captured based on classification inclusion rules.
SamplingPotential	Int32	The total number of items that Enterprise Vault considered for sampling.
DuplicationDiscard	Int32	The number of items that were not sampled because they were duplicates of other items.
StatisticalDiscard	Int32	The total number of items that Enterprise Vault did not include for statistical sampling. This number is 0 if you chose guaranteed sampling.
ClassificationDiscard	Int32	The total number of items that Enterprise Vault classified with the property "evaction.discard" and did not send to Compliance Accelerator for sampling.
ClassificationExclude	Int32	The total number of items that Enterprise Vault classified with the property "evtag.exclusion" and did not send to Compliance Accelerator for sampling.
MessageDiscard	Int32	The total number of items that are specific to Exchange Server that Enterprise Vault did not include for sampling. The items include delivery reports, read receipts, out-of-office replies, quota warnings, and system messages.

IngestToCA	Int32	The total number of items that Enterprise Vault sent to Compliance Accelerator for sampling for the given department, message type, capture type, direction, and employee.

Table 6 –SamplingSummary Fields

GuaranteedSamplingSummary

The **GuaranteedSamplingSummary** dataset provides statistical information of items that Compliance Accelerator has processed in guaranteed sampling mode.

How to access
http://server_name/CAReporting/OData/GuaranteedSamplingSummary(customerID=2,departmentID=8,dateFrom=2015-04-24,dateTo=2016-04-24)

Returns the daily statistics of items that were sampled in guaranteed sampling mode for each monitored employee for the specified department and date range.

Parameter	Description
customerID	Mandatory. Specifies the customer for which you want information.
departmentID	Optional. Indicates the particular department belonging to the specified customer for which you want information. If this parameter is not specified, the query fetches information for all the departments for the specified customer.
dateFrom	Optional, must be used with `dateTo`. Indicates the start date of the date range you want to fetch records for. The date should be in YYYY-MM-DD format. The default start date is one year before the date on which the query is run.
dateTo	Optional, must be used with `dateFrom`. Indicates the end date of the date range you want to fetch records for. The date should be in YYYY-MM-DD format. Default value is the date when the query is run.

Table 7 – GuaranteedSamplingSummary Parameters

Field	Type	Description
CustomerID	Int32	The identifying number that Compliance Accelerator has assigned to the customer.
DepartmentID	Int32	The identifying number that Compliance Accelerator has assigned to the department.
Date	DateTime	The date when Enterprise Vault processed the items belonging to this employee.
EmployeeID	Int32	The ID of the employee.
EmployeeName	String	The display name of the employee.
ItemTypeID	Int32	The message type ID, which specifies the message content source along with the direction. Possible values are 0 (NotSpecified), 1 (Exchange), 2 (InstantMessaging), 3 (Bloomberg), 4 (Fax), 5 (Lotus), 6 (FSA), 7 (SMTP), 8 (SharePoint), 9 (Social), and 10 (IMAP).
Direction	String	The direction of the message (internal, external inbound, or external outbound).

CaptureType	Int32	Specifies the reason for which the item is considered for sampling. Possible values are as follows: • 2 : Indicates that items are randomly captured.. • 6 : Indicates that the item is sampled and captured based on guaranteed sample search. • 10 : Indicates that the item is sampled and considered as a duplicate during guaranteed sample search results deduplication. • 99: Indicates that the item is captured based on classification inclusion rules.
IngestToCA	Int32	The total number of items that Enterprise Vault sent to Compliance Accelerator for sampling for the given department, message type, direction, capture type and employee.
GSSSampled	Int32	The number of items that are sampled and captured based on guaranteed sample search.
GSSDuplicate	Int32	The number of items that are sampled and detected as duplicate during guaranteed sample search results deduplication.
PolicySampled	Int32	The number of items that are sampled and have associated policies.
RandomSampled	Int32	The number of items that are randomly sampled.
RelevantSampled	Int32	The number of items out of sampled that are marked as Relevant by Compliance Accelerator Intelligent review.

Table 8 – GuaranteedSamplingSummary Fieldss

StatisticalSamplingSummary

The **StatisticalSamplingSummary** dataset provides statistical information of items that Compliance Accelerator has processed in statistical sampling mode.

How to access
http://server_name/CAReporting/OData/StatisticalSamplingSummary(customerID=32,departmentID=10,dateFrom=2015-01-21,dateTo=2016-01-21)
Returns the daily statistics of items that were sampled in statistical sampling mode for each monitored employee for the specified department and date range.

Parameter	Description
`customerID`	Mandatory. Specifies the customer for which you want information.
`departmentID`	Optional. Indicates the particular department belonging to the specified customer for which you want information. If this parameter is not specified, the query fetches information for all the departments for the specified customer.
`dateFrom`	Optional, must be used with `dateTo`. Indicates the start date of the date range you want to fetch records for. The date should be in YYYY-MM-DD format. The default start date is one year before the date on which the query is run.
`dateTo`	Optional, must be used with `dateFrom`. Indicates the end date of the date range you want to fetch records for. The date should be in YYYY-MM-DD format. Default value is the date when the query is run.

Table 9 – StatisticalSamplingSummary Parameters

Field	Type	Description
CustomerID	Int32	The identifying number that Compliance Accelerator has assigned to the customer.

DepartmentID	Int32	The identifying number that Compliance Accelerator has assigned to the department.
Date	DateTime	The date when Enterprise Vault processed the items belonging to this employee.
EmployeeID	Int32	The ID of the employee.
EmployeeName	String	The display name of the employee.
ItemTypeID	Int32	The message type ID, which specifies the message content source along with the direction. Possible values are 0 (NotSpecified), 1 (Exchange), 2 (InstantMessaging), 3 (Bloomberg), 4 (Fax), 5 (Lotus), 6 (FSA), 7 (SMTP), 8 (Sharepoint), 9 (Social), and 10 (IMAP).
Direction	String	The direction of the message (internal, external inbound, or external outbound).
CaptureType	Int32	Specifies the reason for which the item is considered for sampling. Possible values are as follows: • 2 : Indicates that items are randomly captured.. • 99: Indicates that the item is captured based on classification inclusion rules.
IngestToCA	Int32	The number of total items that Enterprise Vault sent to Compliance Accelerator for sampling for the given department, message type, direction, capture type and employee.
CappingDiscard	Int32	The number of items that were discarded when statistical capping is configured in Compliance Accelerator. If capping is not applied, the value here is 0.
PolicySampled	Int32	The number of items that are sampled and have associated policies.
RandomSampled	Int32	The number of items that are randomly sampled.
RelevantSampled	Int32	The number of items out of sampled that are marked as Relevant by Compliance Accelerator Intelligent review.

Table 10 – StatisticalSamplingSummary Fields

Appendix C Supported Query Options

Query Options are query string parameters a client can specify to control the data that the reporting service returns for the query and format of the data. As such, query options can only be used on dataset fields returned by the report, and not on the dataset parameters required to run the report. The names of all query options are prefixed with a "$" character. The reporting service includes a subset of query options defined by the OData specification. Listed below are the query options supported by the DA and CA reporting services.

Format Query Option ($Format)

This query option specifies the format of the response. If the $format query option is present in a request it takes precedence over the value(s) specified in the Accept request header. Supported values for the $format query string option are listed in the following table.

$format Value	Response Media Type
application/atom+xml	application/atom+xml
application/Jason	application/ json
application/jasonfull	application/json verbose

Filter Query Option ($filter)

This query option identifies a subset of the entries returned by the query. The subset is determined by selecting only the entries that satisfy the conditional expression specified by the query option.

Listed below are examples of the supported operators.

Operator	Description	Example	Expected output
Eq	Equal	/Cases(customerID=2)?$filter= CaseName eq 'Case1'	Returns the case having CaseName = 'Case1' from customerID =2
Ne	Not equal	/Cases (customerID=2)?$filter= CaseName ne 'EV'	Returns the case having CaseName not equal to 'EV' from customerID =2
Gt	Greater than	/Cases (customerID=2)?$filter= CaseID gt 10	Returns all cases having CaseID greater than 10
Ge	Greater than or equal	/Cases (customerID=2)?$filter= CaseID ge 10	Returns all cases having CaseID greater than or equal to 10
Lt	Less than	/Cases (customerID=2)?$filter= CaseID lt 20	Returns all cases having CaseID less than 20
Le	Less than or equal	/Cases (customerID=2)?$filter= CaseID le 100	Returns all cases having CaseID less than or equal to 100
And	Logical and	/Cases (customerID=2)?$filter= CaseID le 200 and CaseID gt 6	Returns all cases having CaseID less than 200 and greater than 6

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Or	Logical or	/Cases (customerID=2)?$filter= CaseID le 5 or CaseID gt 200	Returns all cases having CaseID less than 5 or greater than 200
Not	Logical negation	/Cases (customerID=2)?$filter=not endswith(CaseName,'OldCases')	Returns all cases where CaseName not ending with ‘OldCases’
Arithmetic Operators			
Add	Addition	/Productions(customerID=2)?$filter= NumberOfItemsProduced add 5 gt 10	Return all Productions records where (NumberofItemsProduced + 5) > 10
Sub	Subtraction	/Productions(customerID=2)?$filter= NumberOfItemsProduced sub 5 gt 10	Return all Productions records where (NumberofItemsProduced - 5) > 10
Mul	Multiplication	/Productions(customerID=2)?$filter= NumberOfItemsProduced mul 2 gt 2000	Return all Productions records where (NumberofItemsProduced * 2) > 2000
Div	Division	/Productions(customerID=2)?$filter= NumberOfItemsProduced div 2 gt 4	Return all Productions records where (NumberofItemsProduced % 2) > 4
Grouping Operators			
( )	Precedence grouping	/Productions(customerID=2)?$filter=(NumberOfItemsProduced sub 5) gt 10	Return all Productions records where (NumberofItemsProduced – 5) > 10

Select Query Option ($select)

This query option specifies a subset of fields to return and the order in which to organize the data columns. The default is to return all columns that correspond to $select=*.

The value of a $select Query Option is a comma-separated list of selection clauses.

The following is a set of examples that show the usage of $select option:

Examples:

http://<*DAServername*>/DAReporting/OData/Cases(customerID=<id>)?$select=CaseName,CaseID

- This query returns only the CaseID and CaseName Property values for each Case Entry.

http://<*DAServername*>/DAReporting/oData/Cases(customerID=<id>)?$select=*

- This query returns all fields for each Case for the customer identified by the customerID.

$Top

This option determines a maximum number of records to return.

Examples

http:// <*DAServername*>/DAReporting/oData/Productions(customerID=2)?$top=2

- This query will return the top two records of the Productions report.

$Skip

This option sets the number of records to skip before retrieving records in a collection.

Examples

http:// <*DAServername*>/DAReporting/oData/Productions(customerID=2)?$skip=1

- This query will skip the first record and return all the remaining records from the Productions report

Appendix D Switching between Customer Databases

Since administrators can create multiple customer databases with CA and DA, it can be beneficial to create a report or dashboard that allows you to toggle easily between the different customer databases. The following example shows you how to create a dropdown list for your customer databases and output case information for the customer database that you select.

Creating a Customer Name Dropdown List

Highlight the **Power Query** tab**.** Select **From Other Sources/From OData Feed**

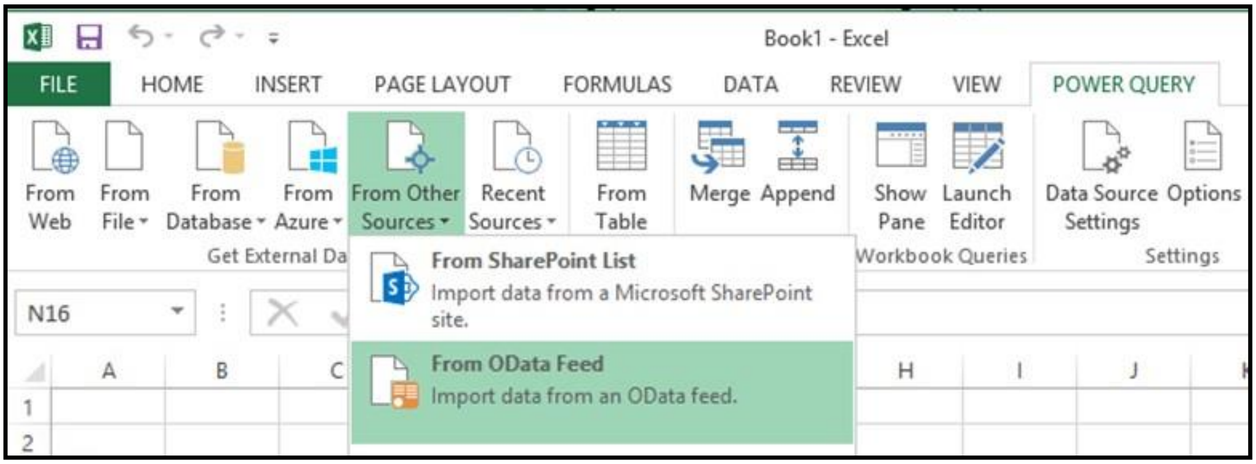

Figure 1 – OData Feed

Enter http://*DAServerName*/DAReporting/OData/Customers

Note: If you get an error about **the user was not authorized**, select the **Windows** tab and click **Connect**.)

Click **OK**

Under **Query Settings**, name the query **AllCustomerQuery**

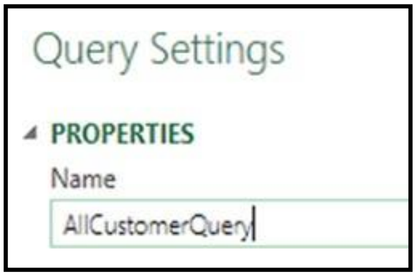

Figure 2 – Query Name

Select **Close & Load\Close & Load To…**

On the **Load To** window, select **Table** and **Existing Worksheet**

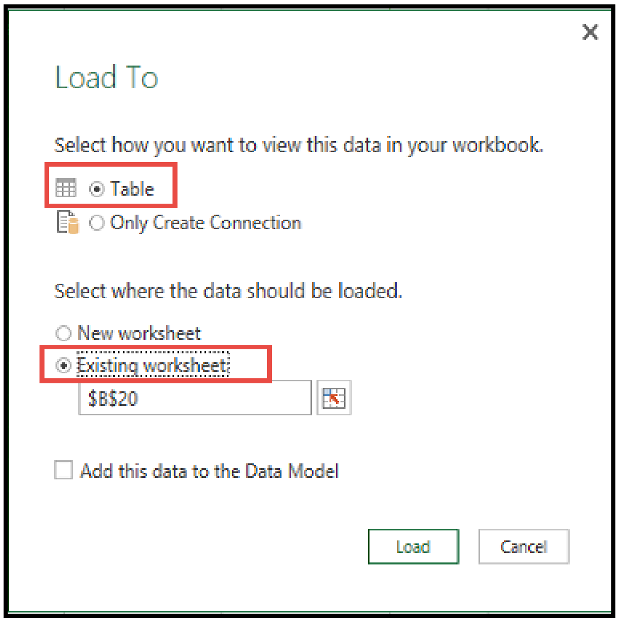

Figure 3 – Load To

Click **Load**

Click the **plus symbol** at the bottom left-hand corner of the screen to add a new worksheet.

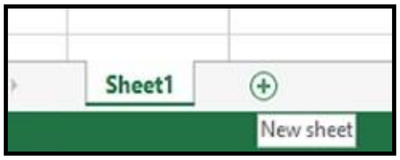

Figure 4 – Add a new worksheet

In worksheet two, type **Select CustomerName** in cell **A1**.

Highlight cell **B1**.

Figure 5 – Highlight Cell

Select **Formulas/Name Manager**.

Click **New**

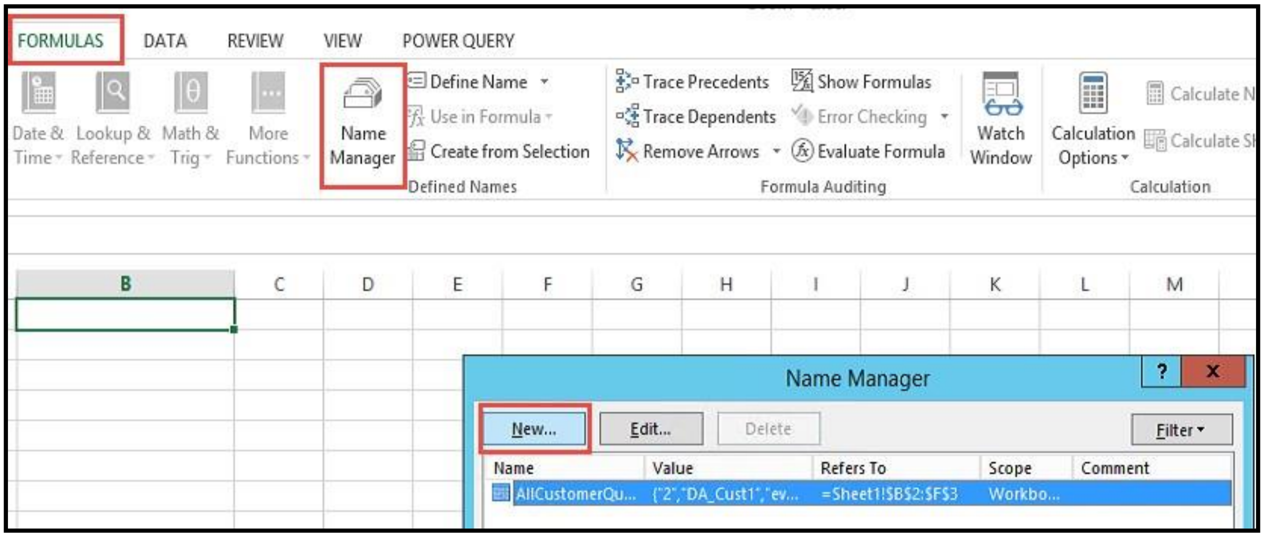

Figure 6 – Select Formulas/Name Manager

Enter **CustomerName** in the **Name** field. Enter **=AllCustomerQuery[CustomerName]** in the **Refers to** field.

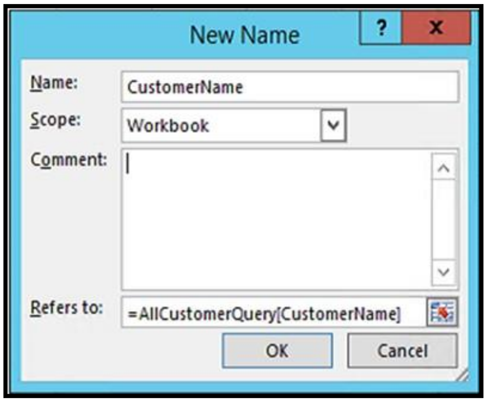

Figure 7 – CustomerName

Click **OK**.

Click **Close**.

With cell **B1** still highlighted, select **Data/Data Validation/Data Validation**.

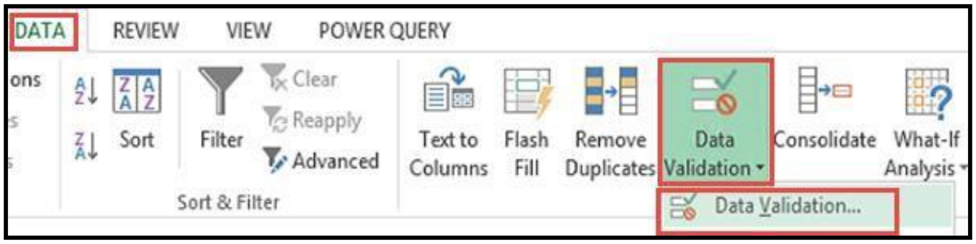

Figure 8 – Select Data Validation

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In the **Allow** field, select **List**. In the **Source** field, enter **=CustomerName**

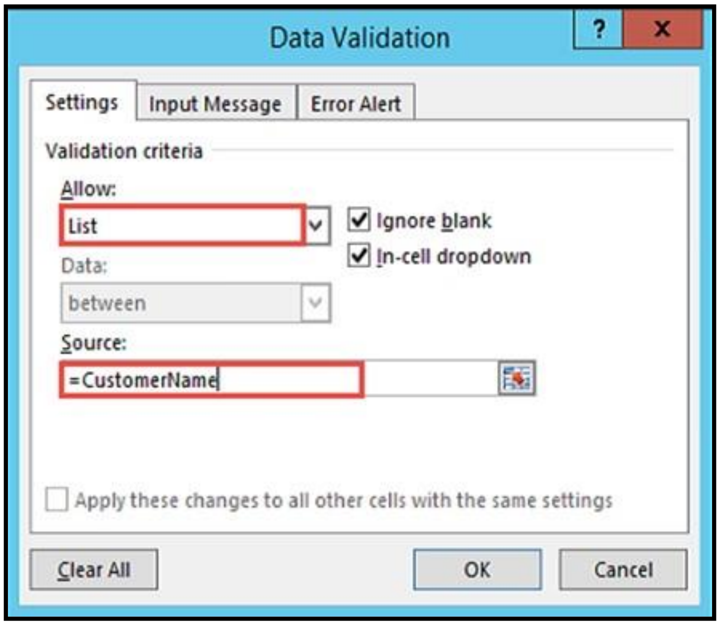

Figure 9 – Data Validation

Click **OK**.

A new dropdown list for selecting the Discovery Accelerator customer databases now appears. Select a customer name from the list.

Figure 10 – Customer Database Dropdown

Creating a customerID Table

After creating the Customer Name dropdown list, we need to create a customerID Table to map the customerID to the Customer Name.

Highlight cells **B2** and **B3** and select **Insert/Table**.

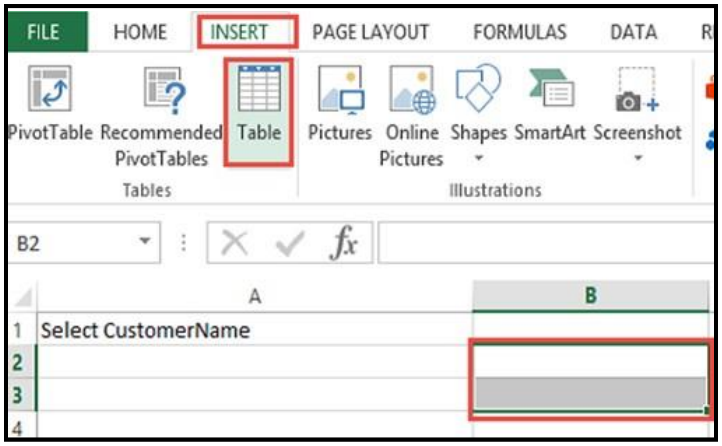

Figure 11 – Insert/Table

VERITAS

Check **My table has headers**.

Click **OK**.

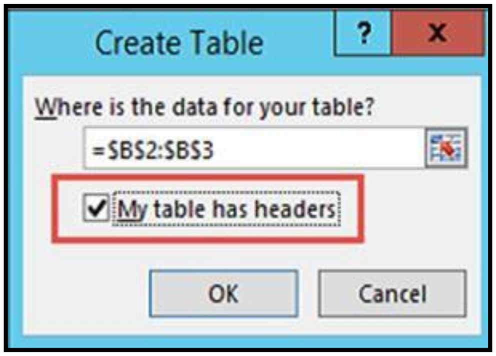

Figure 12 – Create Table

Click on the **Design** tab. (This will allow you to rename the table.)

Rename table under **Table Name** to **CustomerIDTable**.

Hit **Enter**.

Double-click to select **Column1.** Rename to **CustomerID**.

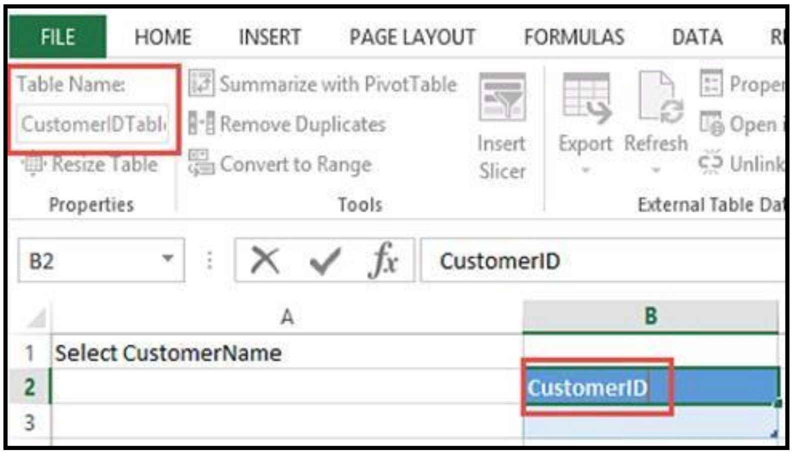

Figure 13 – Rename Table and Column

Highlight the blank, **B3** field and add the following function:

=INDEX((AllCustomerQuery[CustomerID]), MATCH(B1,AllCustomerQuery[CustomerName],0))

Note: Field **B1** should already be populated with a **CustomerName** value and the word **IF** should appear on the top, left-hand corner of the screen.

Click the **Check Mark**

Figure 14 – Adding a function

The corresponding **customerID** should now appear under the **CustomerName**. If you select the dropdown box and change the **CustomerName**, the **customerID** should change as well.

Figure 15 – CustomerName with customerID

Toggling to see cases from different Customer Databases

As a final step, we will create a Cases dataset. The Cases listed will change based upon the customer name we select.

Highlight the **Power Query** tab**.** Select **From Other Sources/From OData Feed**

In this example, type in the URL http://*DAServername*/DAReporting/OData/Cases(customerID=X) to read the Discovery Accelerator Cases dataset. Replace **X** with a customerID value.

Figure 16 – Enter URL

Click **OK**.
Rename Query to **CasesQuery**.

Highlight the **CreatedDate** and **ModifiedDate** columns by pressing the **Ctrl key** and select **Data Type/Date/Time**.

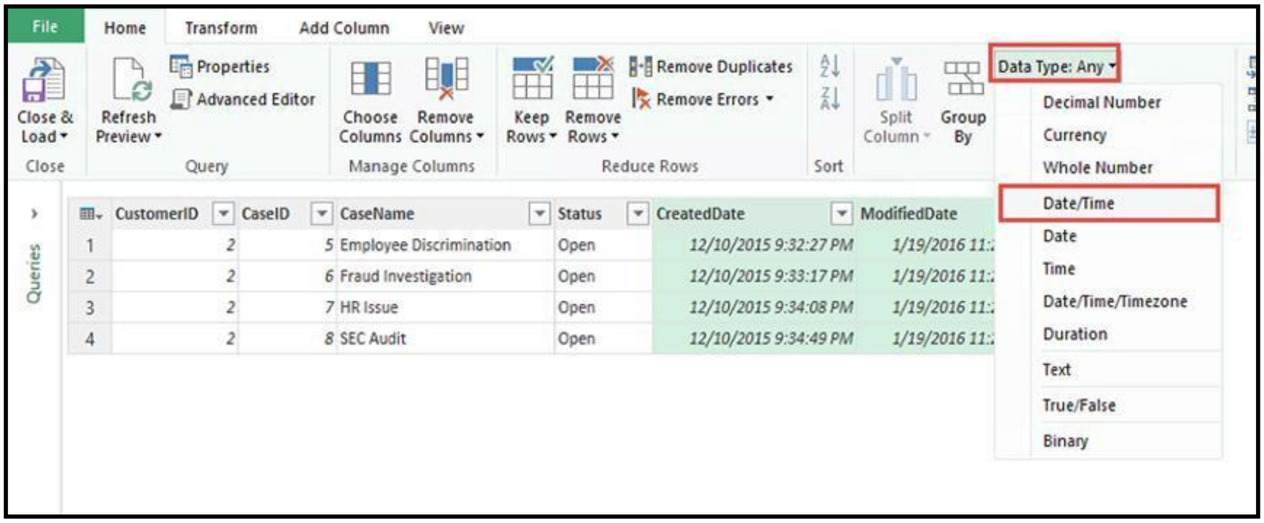

Figure 17 – Data Type

Select **Close & Load/Close & Load To…**

In the **Load To** window, select **Table** and **Existing worksheet**.

Click **Load**.

The Cases Dataset now appears.

CustomerID	CaseID	CaseName	Status	CreatedDate	ModifiedDate
2	5	Employee Discrimination	Open	12/10/2015 21:32	1/19/2016 19:28
2	6	Fraud Investigation	Open	12/10/2015 21:33	1/19/2016 19:28
2	7	HR Issue	Open	12/10/2015 21:34	1/19/2016 19:28
2	8	SEC Audit	Open	12/10/2015 21:34	1/19/2016 19:28

Figure 18 – Cases Dataset

Under **Workbook Queries**, right-click the **CasesQuery** and select **Edit**.

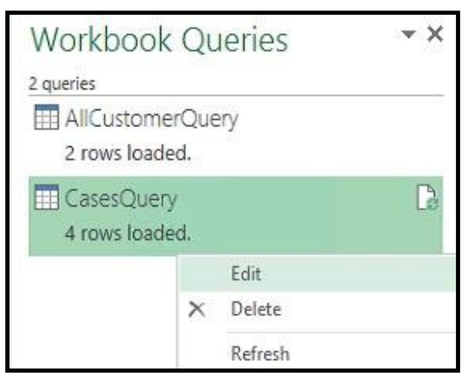

Figure 19 – Edit Query

Select **Advanced Editor**.

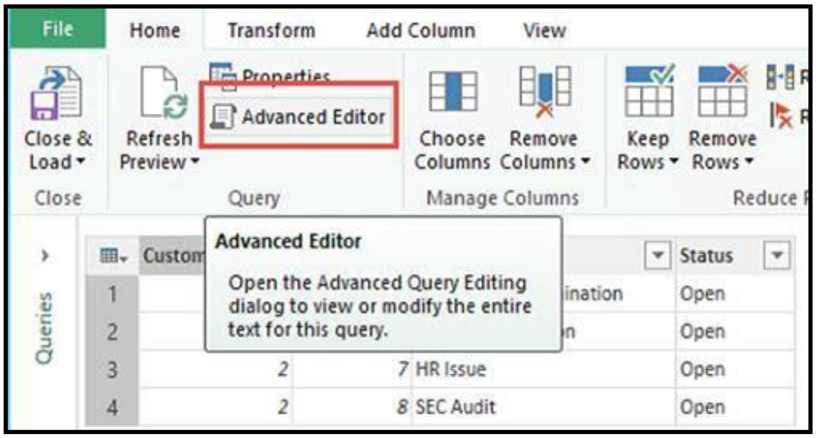

Figure 20 – Advanced Editor

Delete the contents of the CasesQuery and replace with the lines below, (replace DAServerName with the name of your DA Server):

let

customertable = Excel.CurrentWorkbook(){[Name="CustomerIDTable"]}[Content],

Value0 = customertable{0}[CustomerID],

Value1 = customertable{0}[CaseID],

Source = OData.Feed("DAServerName/DAReporting/oData/Cases(customerID=" & Number.ToText(Value0 , "D", "") & ")")

in

Source

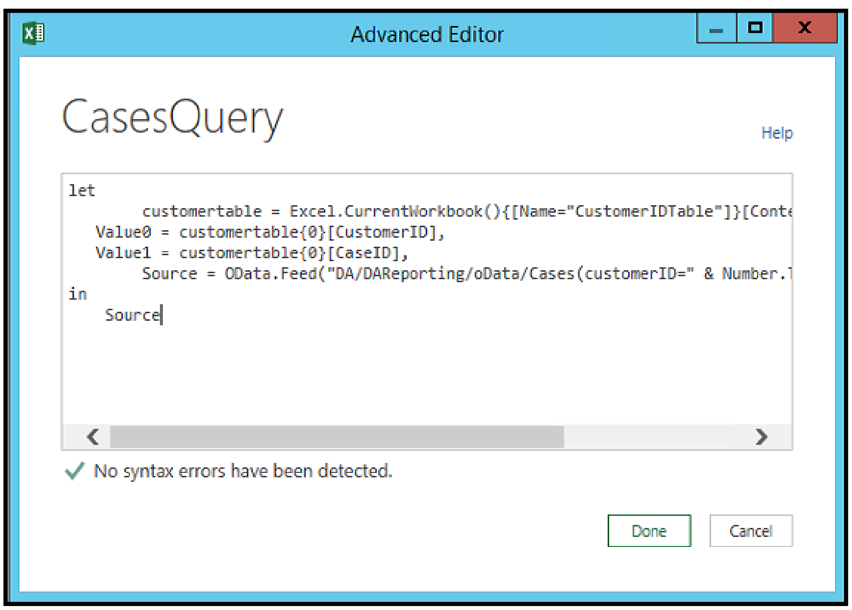

Figure 21 – Query

Click **Done**.

At this point, you can choose one of two options.

Option 1:

Click **Continue** when you receive the message indicating: **Information is required about data privacy.**

Choose the Privacy Levels of your choice and select **Save**.

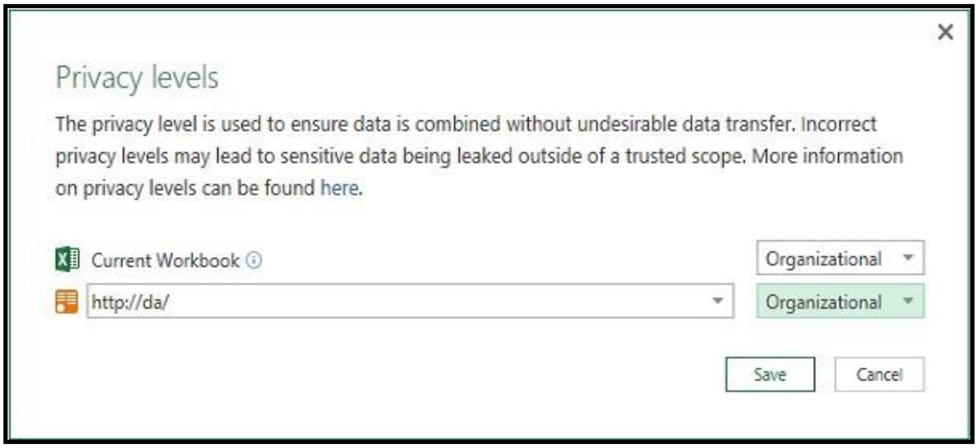

Figure 22 – Privacy Levels

Select **Close & Load**.

Option 2:

Alternatively, you can select to **Ignore the Privacy Levels and potentially improve performance**.

Warning: Using Option 2, Power Query cannot ensure the privacy of data merged into the workbook.

To perform Option 2, select **File/Options and settings/Query Options**.

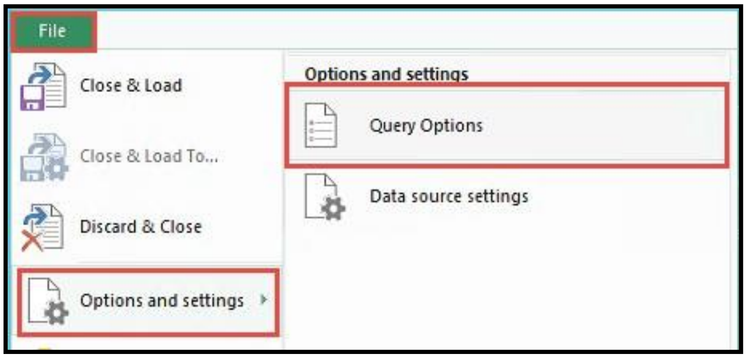

Figure 23 – Query Options

Select Privacy. Click **Ignore the Privacy levels and potentially improve performance** and click **OK**.

Select **Close & Load**.

After completing Option 1 or Option 2, within your worksheet, select the CustomerName dropdown and choose another customer.

Select **DATA/Refresh All/Refresh All**.

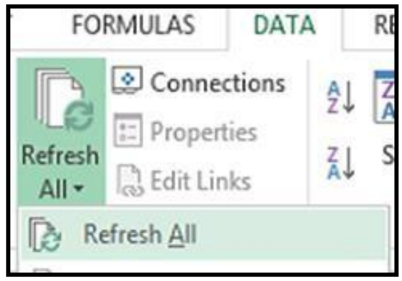

Figure 24 – Refresh All

In Figures **25** and **26** you can see the data within the Cases table change based upon the Customer Name selected.

Select CustomerName	DA_Cust1						
	CustomerID	CustomerID	CaseID	CaseName	Status	CreatedDate	ModifiedDate
	2	2	5	Employee Discrimination	Open	12/10/2015 21:32	1/19/2016 19:28
		2	6	Fraud Investigation	Open	12/10/2015 21:33	1/19/2016 19:28
		2	7	HR Issue	Open	12/10/2015 21:34	1/19/2016 19:28
		2	8	SEC Audit	Open	12/10/2015 21:34	1/19/2016 19:28

Figure 25 – Select Customer Name

Select CustomerName	DA_Cust2						
	CustomerID	CustomerID	CaseID	CaseName	Status	CreatedDate	ModifiedDate
	4	4	5	SEC Investigation	Open	1/18/2016 19:46	1/19/2016 19:44
		4	6	Employee Harrassment	Open	1/19/2016 4:02	1/19/2016 19:44
		4	7	Personal Injury Claim	Open	1/19/2016 4:03	1/19/2016 19:44

Figure 26 – Select Customer Name

About Veritas
Veritas Technologies LLC enables organizations to harness the power of their information, with solutions designed to serve the world's largest and most complex heterogeneous environments. Veritas works with 86 percent of Fortune 500 companies today, improving data availability and revealing insights to drive competitive advantage. More information is available at www.veritas.com.

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Veritas World Headquarters 500 East Middlefield Road Mountain View, CA 94043 USA

+1 (650) 933 1000