

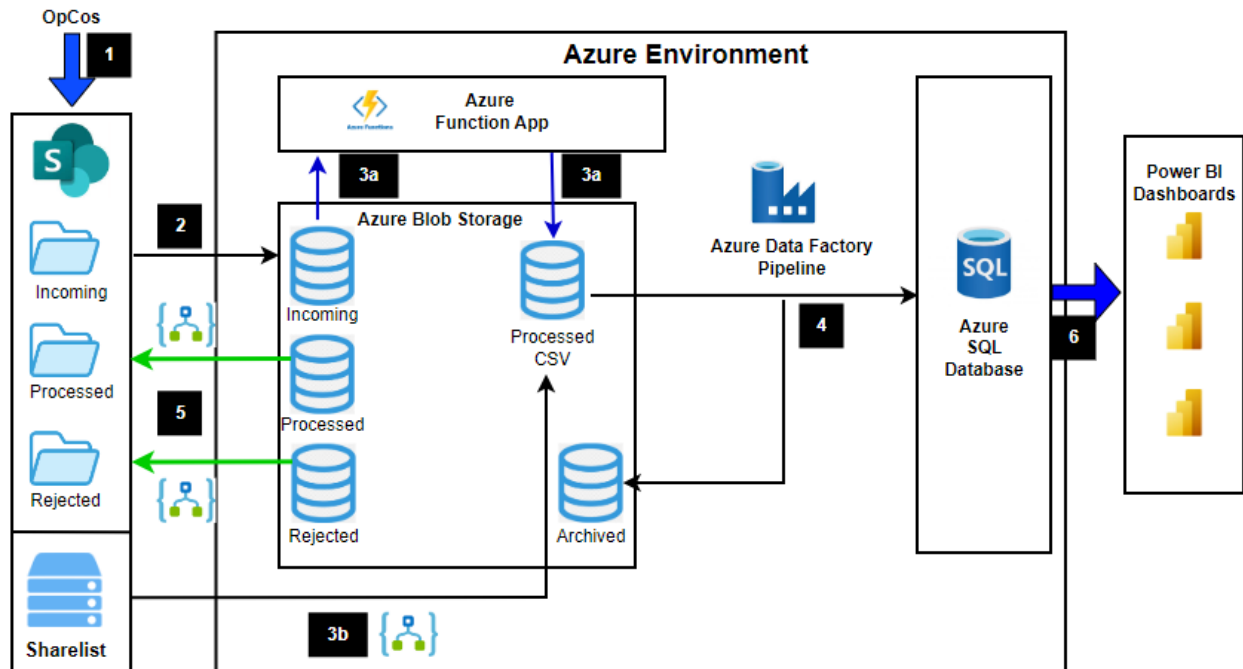
User Guide for Axiata GIS Data Lake



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Workflow Design



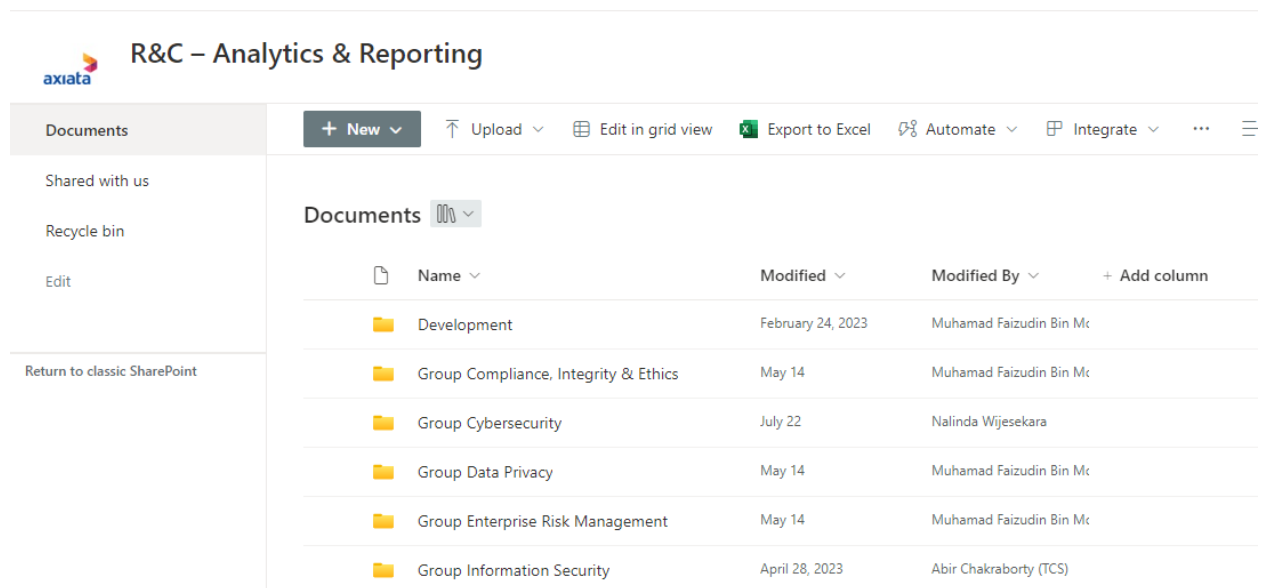
Workflow Design Step	Description
1	<ul style="list-style-type: none"> The OpCos will place the files in the Incoming Folder of SharePoint. Each OpCo has a specific Incoming Folder in SharePoint.
2	<ul style="list-style-type: none"> Microsoft Logic App will trigger and read the files in Incoming Folder of SharePoint and copy them into the Azure Blob Storage Incoming Folder.
3a	<ul style="list-style-type: none"> The Function App python program reads the files in the Incoming Folder of Blob Storage and runs the validation conditions of the file name. In case if the validation conditions are failed then the file is transferred to Rejected Folder. Upon the validation being successfully passed the excel file is processed and CSV files are generated for each tab of the excel sheet. The CSV files are stored in the Processed CSV folder and the relevant excel file is moved to the Processed folder.
3b	<ul style="list-style-type: none"> Microsoft Logic App will trigger and read the files in SharePoint list and runs the validation conditions of the file name.
4	<ul style="list-style-type: none"> The CSV files present in the Processed CSV folder are ingested into Azure SQL DB tables by an ADF pipeline. Once the CSV files are copied to Azure SQL DB, the same ADF pipeline moves the CSVs to Archived CSV folder.
5	<ul style="list-style-type: none"> The Logic app, upon being triggered, moves the files from Incoming Folder of the SharePoint to the Processed or Rejected Folder of SharePoint.
6	<ul style="list-style-type: none"> The Azure SQL tables are connected to the PowerBI.

Steps to upload files in SharePoint.

1. Go to the SharePoint link below and sign in with Microsoft Credentials which have access to SharePoint.

<https://axtcloud.sharepoint.com/sites/PRCAR/Shared%20Documents/Forms/AllItems.aspx>

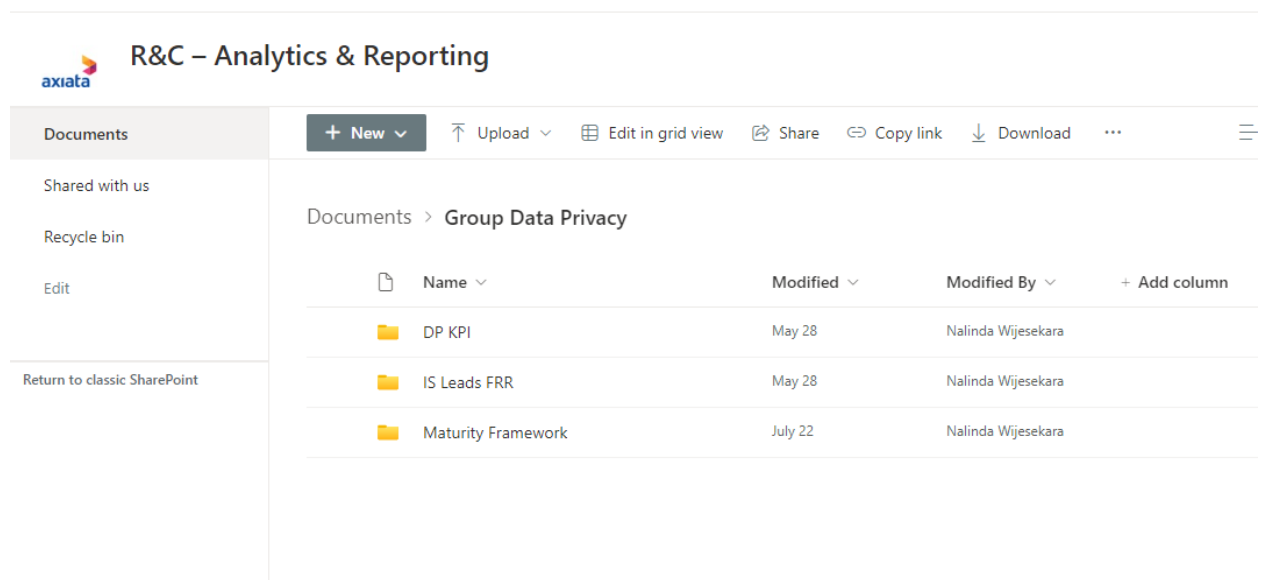
2. After Getting into landing page, there will be folder for each vertical.



The screenshot shows the SharePoint interface for 'R&C – Analytics & Reporting'. The left sidebar contains links for 'Documents', 'Shared with us', 'Recycle bin', 'Edit', and 'Return to classic SharePoint'. The main area displays a list of folders under the 'Documents' library. The folders are: Development, Group Compliance, Integrity & Ethics, Group Cybersecurity, Group Data Privacy, Group Enterprise Risk Management, and Group Information Security. Each folder entry includes its name, the date it was modified, and the user who modified it.

Name	Modified	Modified By
Development	February 24, 2023	Muhamad Faizudin Bin M...
Group Compliance, Integrity & Ethics	May 14	Muhamad Faizudin Bin M...
Group Cybersecurity	July 22	Nalinda Wijesekara
Group Data Privacy	May 14	Muhamad Faizudin Bin M...
Group Enterprise Risk Management	May 14	Muhamad Faizudin Bin M...
Group Information Security	April 28, 2023	Abir Chakraborty (TCS)


3. For an example then click the **Group Data Privacy** folder and go inside.



The screenshot shows the SharePoint interface for 'R&C – Analytics & Reporting' with the 'Group Data Privacy' folder selected. The left sidebar is the same as the previous screenshot. The main area displays a list of files and folders under the 'Group Data Privacy' library. The items are: DP KPI, IS Leads FRR, and Maturity Framework. Each item includes its name, the date it was modified, and the user who modified it.

Name	Modified	Modified By
DP KPI	May 28	Nalinda Wijesekara
IS Leads FRR	May 28	Nalinda Wijesekara
Maturity Framework	July 22	Nalinda Wijesekara

4. Inside **Group Data Privacy**, there is each folder for **DP KPI**, **IS Leads FRR** and **Maturity Framework**.

 **R&C – Analytics & Reporting**

Documents

Shared with us

Recycle bin

Edit

Return to classic SharePoint

+ New ▾

Upload ▾

Edit in grid view





Share

Copy link


Download

...

Documents > **Group Data Privacy**

 Name ▾	Modified ▾	Modified By ▾	+ Add column
 DP KPI	May 28	Nalinda Wijesekara	
 IS Leads FRR	May 28	Nalinda Wijesekara	
 Maturity Framework	July 22	Nalinda Wijesekara	

5. Inside each of these folders, there are folders for each OpCos.

 **R&C – Analytics & Reporting**

Documents

Shared with us

Recycle bin

Edit

Return to classic SharePoint

+ New ▾

Upload ▾

Edit in grid view








Share

Copy link

Download

...

Documents > Group Data Privacy > **DP KPI**

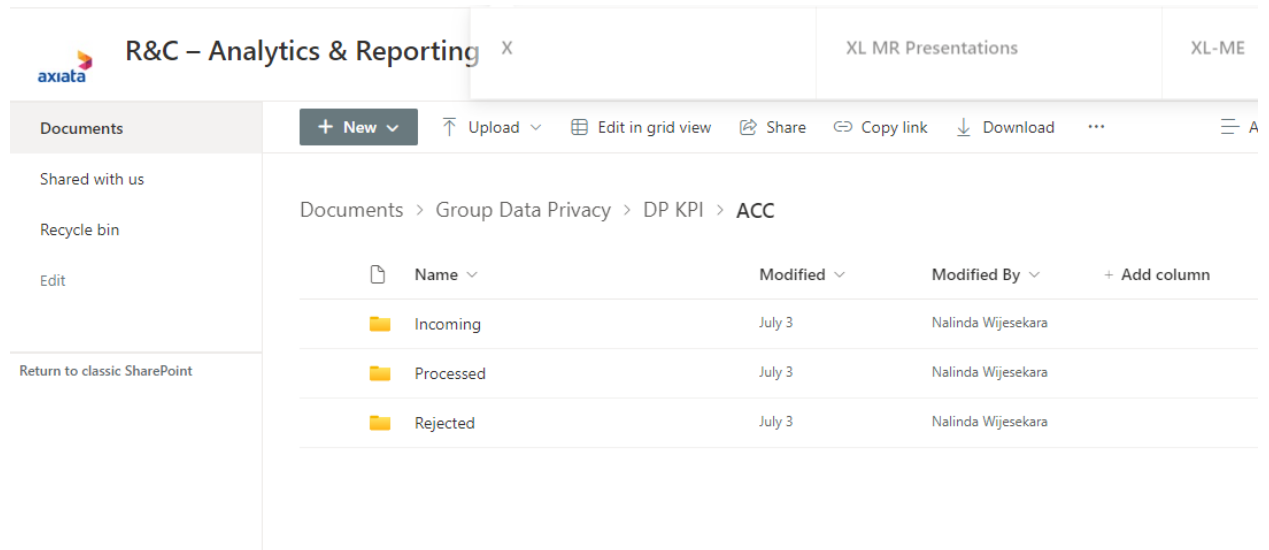
 Name ▾	Modified ▾	Modified By ▾	+ Add column
 ACC	July 3	Nalinda Wijesekara	
 ADA	July 3	Nalinda Wijesekara	
 ADL	July 3	Nalinda Wijesekara	
 BST	July 3	Nalinda Wijesekara	
 DLG	July 3	Nalinda Wijesekara	
 EDC	July 3	Nalinda Wijesekara	

6. Inside each OpCo file there will be,

Incoming folder that is the place where OpCo needs to **upload their individual files**.

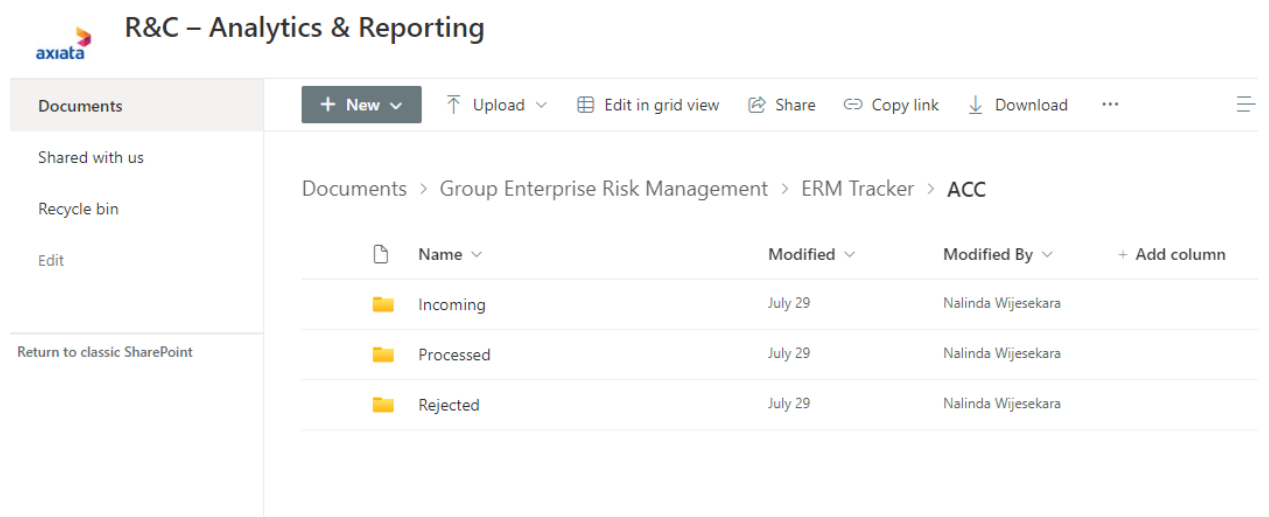
Processed folder that is the place where successfully processed files moved,

Rejected folder that is the place where rejected files (according to file naming conventions and template mis match issues) moved,




axiata R&C – Analytics & Reporting		XL MR Presentations		XL-ME
Documents	+ New Upload Edit in grid view Share Copy link Download ...			
Shared with us				
Recycle bin				
Edit				
Return to classic SharePoint				
Documents > Group Data Privacy > DP KPI > ACC				
	Name	Modified	Modified By	+ Add column
	Incoming	July 3	Nalinda Wijesekara	
	Processed	July 3	Nalinda Wijesekara	
	Rejected	July 3	Nalinda Wijesekara	

7. For **other verticals**, the folder structure is the same as the **Group Data Privacy** folder structure.



axiata R&C – Analytics & Reporting				
Documents	+ New Upload Edit in grid view Share Copy link Download ...			
Shared with us				
Recycle bin				
Edit				
Return to classic SharePoint				
Documents > Group Enterprise Risk Management > ERM Tracker > ACC				
	Name	Modified	Modified By	+ Add column
	Incoming	July 29	Nalinda Wijesekara	
	Processed	July 29	Nalinda Wijesekara	
	Rejected	July 29	Nalinda Wijesekara	



R&C – Analytics & Reporting

Documents

[Shared with us](#)
[Recycle bin](#)
[Edit](#)


Return to classic SharePoint

+ New

[Upload](#)
[Edit in grid view](#)
[Share](#)
[Copy link](#)
[Download](#)

Documents > Group Cybersecurity > FRR > ACC

	Name	Modified	Modified By	+ Add column
	Incoming	6 days ago	Nalinda Wijesekara	
	Processed	6 days ago	Nalinda Wijesekara	
	Rejected	6 days ago	Nalinda Wijesekara	



R&C – Analytics & Reporting

Documents

[Shared with us](#)
[Recycle bin](#)
[Edit](#)

Return to classic SharePoint

+ New

[Upload](#)
[Edit in grid view](#)
[Share](#)
[Copy link](#)
[Download](#)

Documents > Group Compliance, Integrity & Ethics > Compliance KPI > ADA

	Name	Modified	Modified By	+ Add column
	Incoming	June 14	Nalinda Wijesekara	
	Processed	June 14	Nalinda Wijesekara	
	Rejected	June 25	Ramesh Madhubhashitha	

If the file name, sheet name conventions and columns are in proper format, it will be processed successfully, and Excel file will be moved to Processed folder. Otherwise, it will be moved to Rejected folder.

“Don’t create any folder inside incoming folders.”

File Name Convention for Each Dashboard (Reports)

Vertical	Dashboard (Report)	Data Sheet Name Convention
Compliance	compliance_kpi_tracker	Compliance_Tracker_(Version)_(OpCo)_(YYYYMMDD)
	compliance_ceo_dashboard	
	compliance_risk_register	-
	compliance_vital_systems	-
Data privacy	data_privacy_kpi_tracker	DP_Tracker_(Version)_(OpCo)_(YYYYMMDD)
	data_privacy_ceo_dashboard	
	data_privacy_risk_register	DP_FRR_(Version)_(OpCo)_(YYYYMMDD)
	data_privacy_maturity_framework	DP_Maturity_(Version)_(OpCo)_(YYYYMMDD)
ERM	erm_kpi_tracker	ERM_Tracker_(Version)_(OpCo)_(YYYYMMDD)
	erm_ceo_dashboard	
	erm_risk_register	ERM_FRR_(Version)_(OpCo)_(YYYYMMDD)
Cybersecurity	cyber_risk_register	Cyber_FRR_(Version)_(OpCo)_(YYYYMMDD)
	cyber_ceo_dashboard	Cyber_InfoSec_(Version)_(OpCo)_(YYYYMMDD)
	cyber_infosec	

- Here (OpCo) should be in Opco 3 letter code.
- Here (YYYYMMDD) should be in four digits for Year, two digits for Month and two digits for Day.
- Don't use spaces and special characters in filename other than underscore (_)
- File extension should be .xlsx

OpCo 3 Letter Code:

OpCo Full name	3 Letter Code
Axiata Data Analytics	ADA
Axiata Digital Labs	ADL
Axiata CC	ACC
Boost Holdings Sdn. Bhd. Group	BST
Dialog Group	DLG
EDOTCO	EDC
LinkNet	LKN
Ncell	NCL
Robi	RBI
Smart	SMT
XL Axiata	XLA

Each file name is validated according to the following conditions and if validation fails, **it will be moved to the rejected folder**.

1. Are there any spaces in the file name?
2. Is the File name not in the preferred way? (ex:Compliance_Tracker_(Version)_(OpCo)_(YYYYMMDD)).
3. Is the File empty?
4. Is the OpCo valid?
5. Is the File extension valid?
6. Is the File type valid?

File Processing

After the file name is validated successfully, File processing will start. In the file processing stage also, **files can be moved to rejected folder**, If there any internal error in the file.

Following cases may cause files to fail in processing phase.

1. Sheet is missing or Sheet name isn't correct.
In the relevant sheet it is mandatory to have below tabs with the following naming convention.

Vertical	File Name	Mandatory Sheets for Relevant Files/Lists
Compliance	Compliance_Tracker_(Version)_(OpCo)_(YYYYMMDD)	Objective Status, Risk and Issues, Awareness Session, CRR Activity, Training, Communication, Governance, Conflict of Interest
Compliance	Sharelist Sources CRR	PROD_CRR, PROD_Risk_Treatment_CRR, PROD_Opcos_CRR, PROD_Risk_Treatment_Opcos_CRR
Compliance	Sharelist Sources VITAL	Request Form (R & O), Beneficiary List, Approver Details
Data privacy	DP_Tracker_(Version)_(OpCo)_(YYYYMMDD)	Objective Status, BRCC Objective, Critical Process Inventory, TPRM, Privacy Risk Assessment

Data privacy	DP_FRR_(Version)_(OpCo)_(YYYYMMDD)	Ownership Structure, Functional Risk Register
Data privacy	DP_Maturity_(Version)_(OpCo)_(YYYYMMDD)	Maturity Framework, Summary
ERM	ERM_Tracker_(Version)_(OpCo)_(YYYYMMDD)	Objective Status, Risk and Issues, Risk Tolerance, BCM, TCFD, Maturity, Sustainability
ERM	ERM_FRR_(Version)_(OpCo)_(YYYYMMDD)	Ownership Structure, Functional Risk Register
Cybersecurity	Cyber_FRR_(Version)_(OpCo)_(YYYYMMDD)	Ownership Structure, Functional Risk Register
Cybersecurity	Cyber_InfoSec_(Version)_(OpCo)_(YYYYMMDD)	Objective Status, Enhance BRCC Reporting , ZTP2-API, -Endpoint, ZTP2-Data & Identity,ZTP2- Workload & AppSec,Telco Security, ZT-Hygiene,Configuration, CJ Penetration Test Tracker, Third Party,Cloud Security, New Asset Classification, MBSS Assessment,NIST 2.0 Summary, NIST 2.0, E-Learning, Cyber Drills,Ransomware Prep, Vulnerabilities,Aging, Skills matrix, NIST 1.1,NIST 1.1 KPI

2. Table structure or columns mismatch with configuration.



Important Factors

- Don't upload file name with spaces and special characters other than underscore.
- Always follow the specified naming convention for specific file type.
- Always rename modify files locally then upload it to SharePoint. Avoid editing directly in SharePoint.
- Make Sure files always match with original template.
- Don't upload files which are processed already. It will result in duplication of data.
- Don't create any folders in the incoming folder, it will create conflict in the folder structure.

PowerBI Dashboards

This is the complete set of developed dashboards (and Tabs) with their relevant workspaces.

Vertical	Workspace	Dashboard (Reports)	Tabs (Pages) in the Dashboard
Compliance	Group Compliance – GR&C Data Lake	compliance_kpi_tracker	Objective Status, Risk and Issues, Awareness Session, CRR Activity, Training, Communication, Governance, Conflict of Interest
		compliance_ceo_dashboard	Summary View, Month- Wise View
		compliance_risk_register	FRR Summary, FRR Detail, 5 Vector View
		compliance_vital_systems	Offering, Receiving
Data privacy	Group Data Privacy – GR&C Data Lake	data_privacy_kpi_tracker	Objective Status, BRCC Objective, Critical Process Inventory, TPRM, Privacy Risk Assessment
		data_privacy_ceo_dashboard	Summary View, Month- Wise View
		data_privacy_risk_register	FRR Matrix, FRR Summary, FRR Detail, 5 Vector View
		data_privacy_maturity_framework	Maturity Framework, Summary
ERM	Group ERM – GR&C Data Lake	erm_kpi_tracker	Objective Status, Risk and Issues, Risk Tolerance, BCM, TCFD, Maturity, Sustainability
		erm_ceo_dashboard	Summary View, Month- Wise View
		erm_risk_register	FRR Matrix, FRR Summary, FRR Detail, 5 Vector View
Cybersecurity	Group Cybersecurity – GR&C Data Lake	cyber_risk_register	FRR Matrix, FRR Summary, FRR Detail, 5 Vector View
		cyber_ceo_dashboard	Summary View, Month- Wise View
		cyber_infosec	New Asset Classification, NIST 2.0, Nist 2.0 Summary, Objective Status

	Group Data Privacy - GR&C Data Lake
	Group ERM - GR&C Data Lake
	Group Cybersecurity - GR&C Data Lake
	Group Compliance - GR&C Data Lake

Here are the links for different workspace created for different verticals.

1. Group Data Privacy – GR&C Data Lake :-

<https://app.powerbi.com/groups/15e9dde5-79f1-41c1-ace2-cbb053290b54/list?ctid=e08bcf38-c522-44a4-8d2e-33a36b7639de&experience=power-bi>

2. Group Cybersecurity – GR&C Data Lake :-

<https://app.powerbi.com/groups/d643c559-e08b-4455-a96e-a23fbc168c2c/list?ctid=e08bcf38-c522-44a4-8d2e-33a36b7639de&experience=power-bi>

3. Group ERM – GR&C Data Lake :-

<https://app.powerbi.com/groups/6bd65986-d5b6-433c-b60a-8ec64e748c6c/list?ctid=e08bcf38-c522-44a4-8d2e-33a36b7639de&experience=power-bi>

4. Group Compliance – GR&C Data Lake :-

<https://app.powerbi.com/groups/67bb4547-e5ea-4875-bb9f-53b68f1c4a66/list?ctid=e08bcf38-c522-44a4-8d2e-33a36b7639de&experience=power-bi>

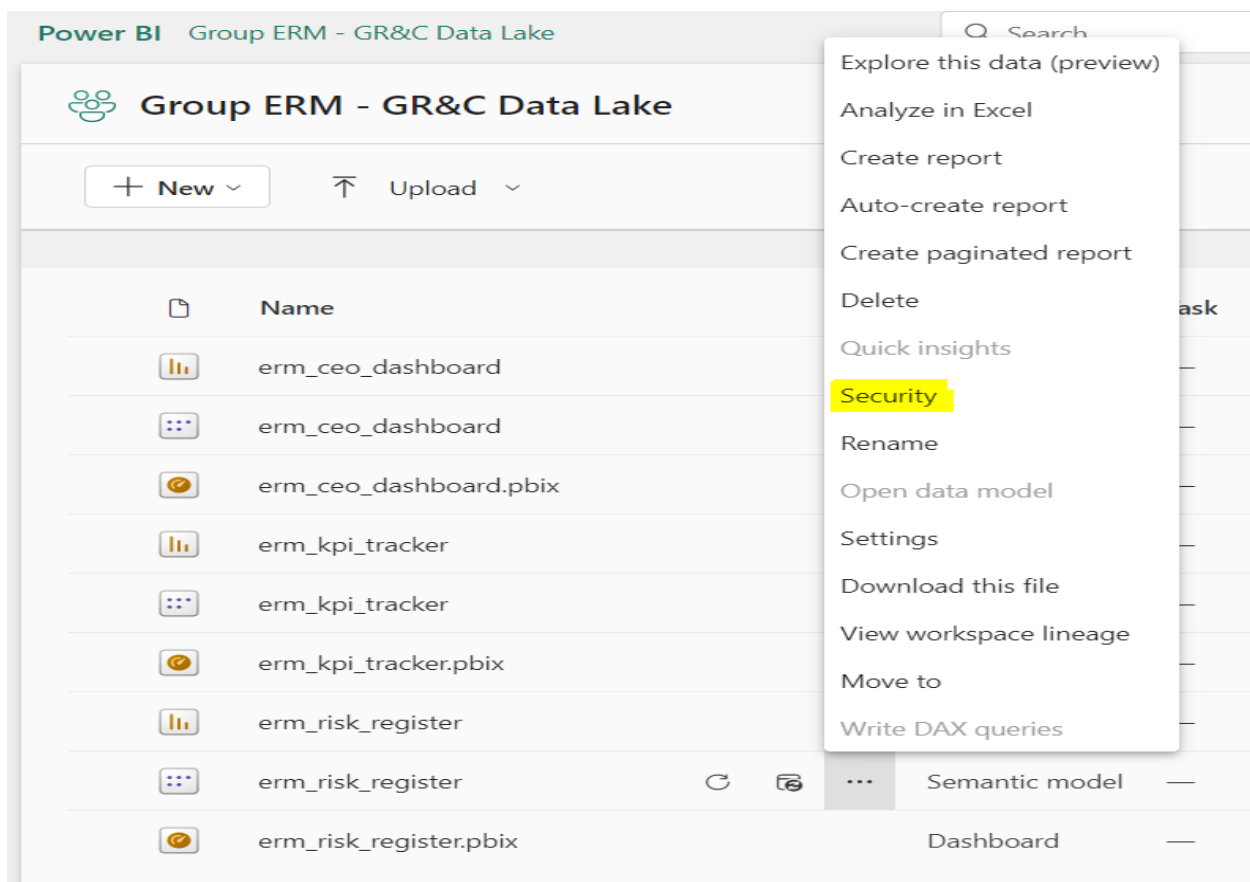
Row-Level Security

Data visualizations in dashboards are restricted to certain viewers. Viewers from certain opcos can only check and analyze the data of those viewers' opco.

We created user groups for each opcos and admin level group for senior management who can access data of all OpCos.

In the PowerBI service you can add certain users (using their email address) into their relevant group.

Step 1:- Goto the relevant workspace and select a dataset in that workspace. Click the Three Dot Icon and then select "Security".



Step 2:- Select a Row-Level Security group that you need to add new members. Then write the email address of the new member and Click "Add" to add them to selected Row-Level Security Group.

Row-Level Security

ACC (0)
ADA (0)
ADL (0)
Admin (0)
BST (0)
DLG (0)
EDC (0)
LKN (0)
NCL (0)
RBI (0)
SMT (0)
XLA (0)

Members (0)

People or groups who belong to this role

Enter email addresses

Add