

D2C Data Onboarding Guidebook

for new members to the D2C group

Hello, new members of the D2C Group.

This guide was created to support data utilization onboarding for new employees of the D2C group. The D2C Data Help Center is operated to support employees' smooth use of data, and we have prepared this guide based on the know-how accumulated while operating the Help Center.

This guide consists of the key information that new employees need to know first when using D2C data. It contains an introduction and basic usage of tools/systems that can utilize D2C data.

If you would like more detailed information other than what is included in the guide, please contact the D2C Data Help Center and we will assist you.

We sincerely wish you a successful onboarding.

Thank you.

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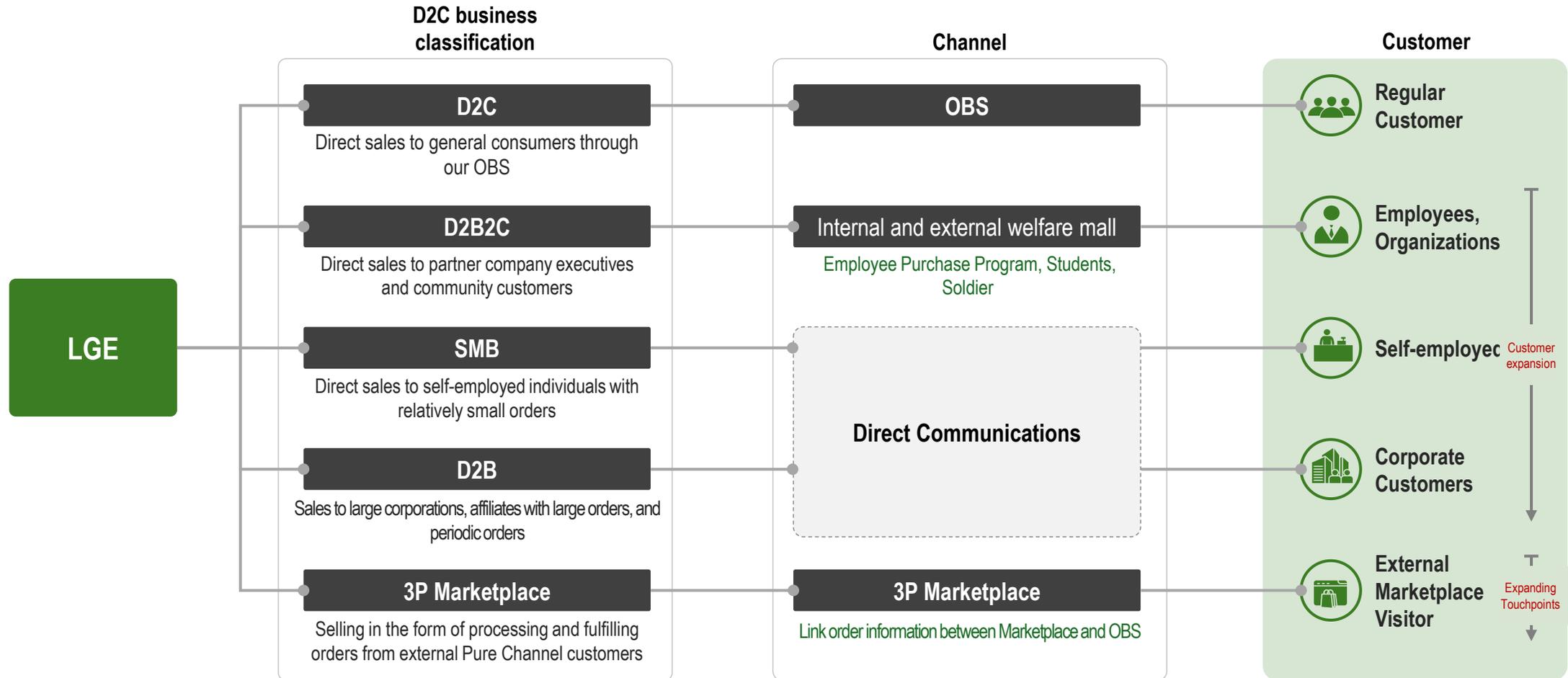
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I . Overview

1. What is D2C Business?
2. What is OBS?
3. What are the D2C data utilization tools?

What is D2C Business?

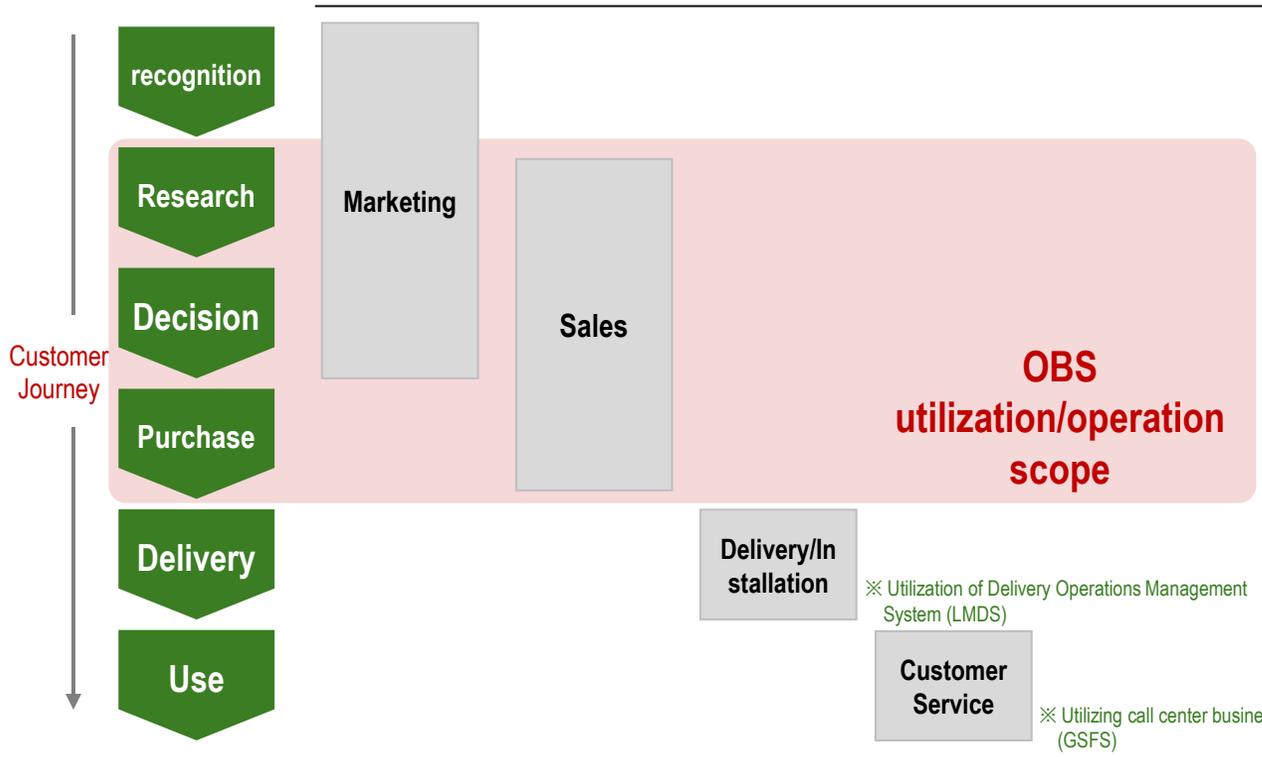
D2C business refers to the method of selling products directly to consumers, and the D2C group defines the D2C area as including sales through its own online platform (OBS) and direct sales through distribution channels.



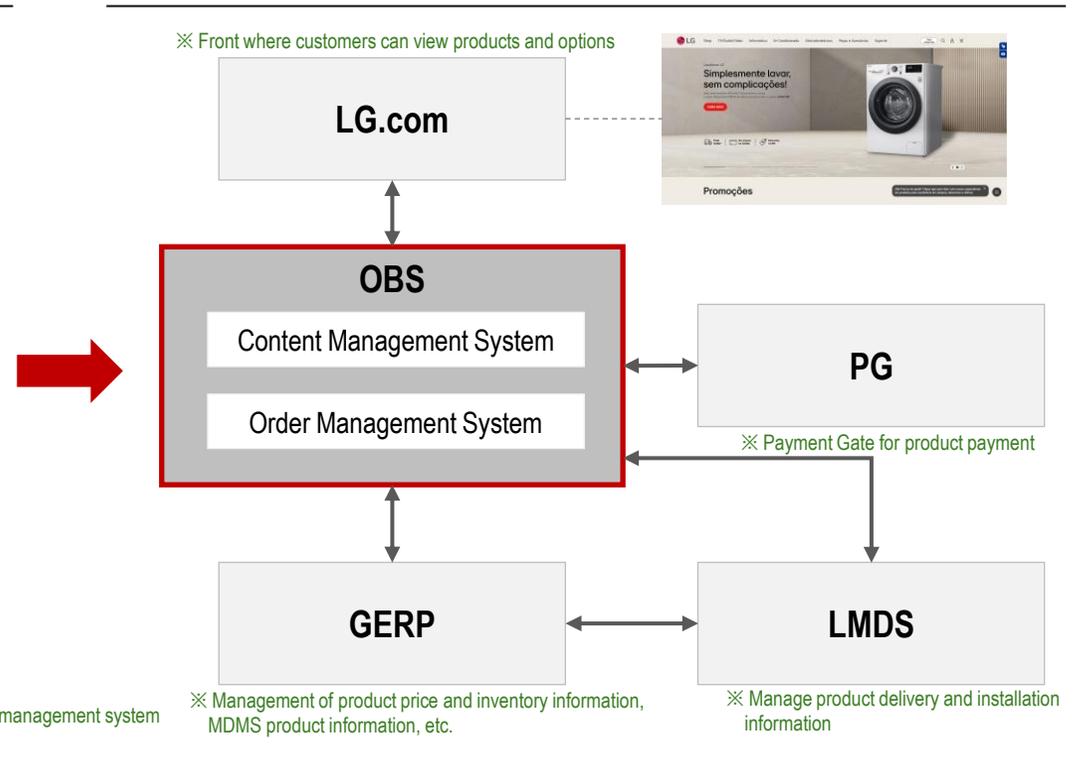
What is OBS?

OBS stands for Online Brand Shop and refers to a system that manages LG.com content and order history. Customers browse and purchase products through our OBS, and each division of the D2C group conducts its work centered on OBS.

D2C Main Tasks



OBS and Major Related Systems



What are the D2C data utilization tools?

We utilize a variety of tools to collect/execute/analyze data for D2C business.

To increase accessibility for employees, we also provide self-developed systems and services.

Marketing & Sales		
	GMP	Integrated digital marketing platform provided by Google
	CJ affiliate	Large affiliate marketing network connecting advertisers and affiliates
	AWIN	An affiliate marketing network that connects various brands and advertisers with affiliates
	Meta	Advertising and marketing solutions through the Meta platform
	Criteo	A solution that provides personalized retargeting advertising
	Amazon	A platform for direct wholesale selling to Amazon
	Naming Convention Builder	Campaign name creation system <small>(Scheduled to open in early 2025)</small>

Data Collect		
	Bazaar voice	Collect customer reviews and user-generated content
	Google Search Console	OBS and related search data collection/monitoring
	Similar Web	Estimation and provision of competitor's traffic, incoming keywords, competitor advertising data, etc
	Sprinklr *	Collect and analyze consumer response data on social media
	CDP	Create customer profiles by collecting, integrating, and refining LG customer data <small>(Scheduled to open in early 2025)</small>

Data Engineering		
	Google * BigQuery	SQL-based analysis tool that can quickly analyze large datasets
	Google DataPlex	Tools that provide BigQuery data management, analytics, and machine learning
	Google * VertexAI	Tools for analyzing and learning BigQuery data through machine learning
	Airflow *	Data workflow creation, scheduling, and data pipeline monitoring tools
	Grafana Prometheus	Tools for monitoring service infrastructure and data
	Tableau	Data dashboard visualization BI tool

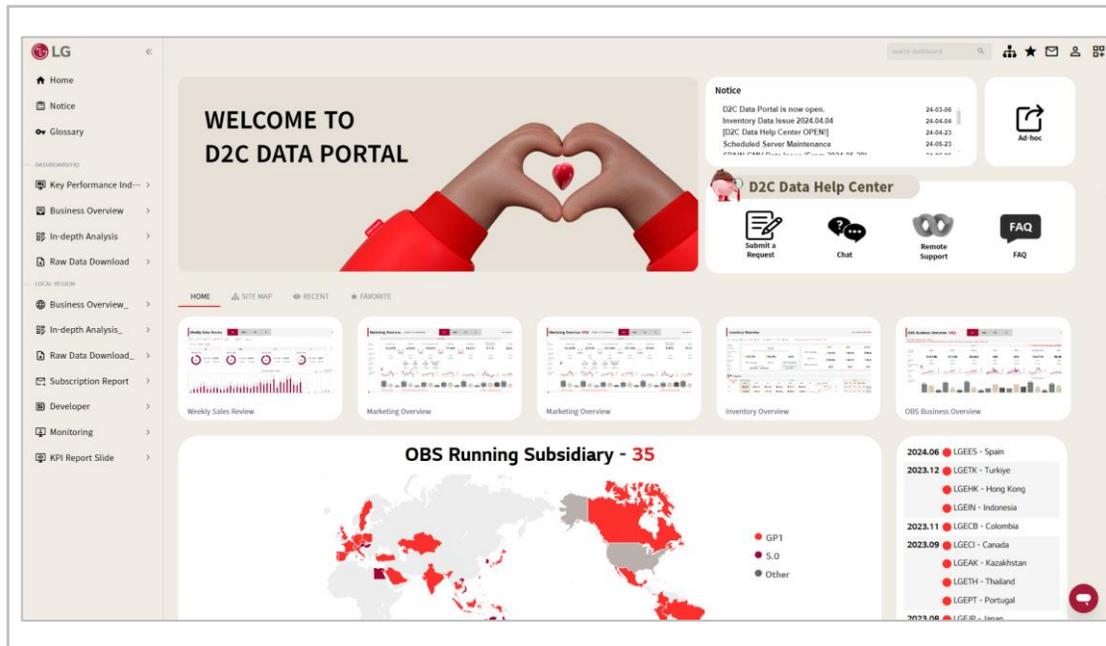
Analytic & Support					
	D2C OneData Portal	System where you can solve various systems/solutions for D2C data analysis/utilization in one place <small>(Scheduled to open in December 2024.)</small>		Google * Analytics 4	Web analytics tool to track and analyze user behavior in OBS
	D2C * Dashboard Portal	Data produced by each tool/solution is refined and provided as a visualized dashboard		D2C * Data Help Center	Support for solutions/data operated by the D2C Data Insight Team

* Subject to detailed explanation as a major tool from a data utilization/analysis perspective

What are the D2C data utilization tools?

D2C Dashboard Portal

We select highly useful D2C data and provide it as a visualized dashboard so that you can utilize data easily and effectively even without data expertise



[D2C Dashboard Portal Main Page]

Features and How to Use

Monitoring Operation Status

- Allows to monitor key performance indicators of the work you are responsible for through a dashboard that can be filtered by each region/corporation/business department

Data Extraction

- Raw data extraction used in dashboards for reporting and detailed data analysis

Dashboard Customization

- Personalize and use uniquely used data/charts with your own view (Explore Access Required)

※ How to obtain and access permissions

- [Apply for permission] EP Access → System Map → IAM(Company permissions/account management) → System Authority → System Authority Request → Search D2C and click D2CD → Apply for permission
- [How to Access] EP Access → System Map → Search D2C Dashboard(D2CD) → Click D2CD and access D2C Data Portal

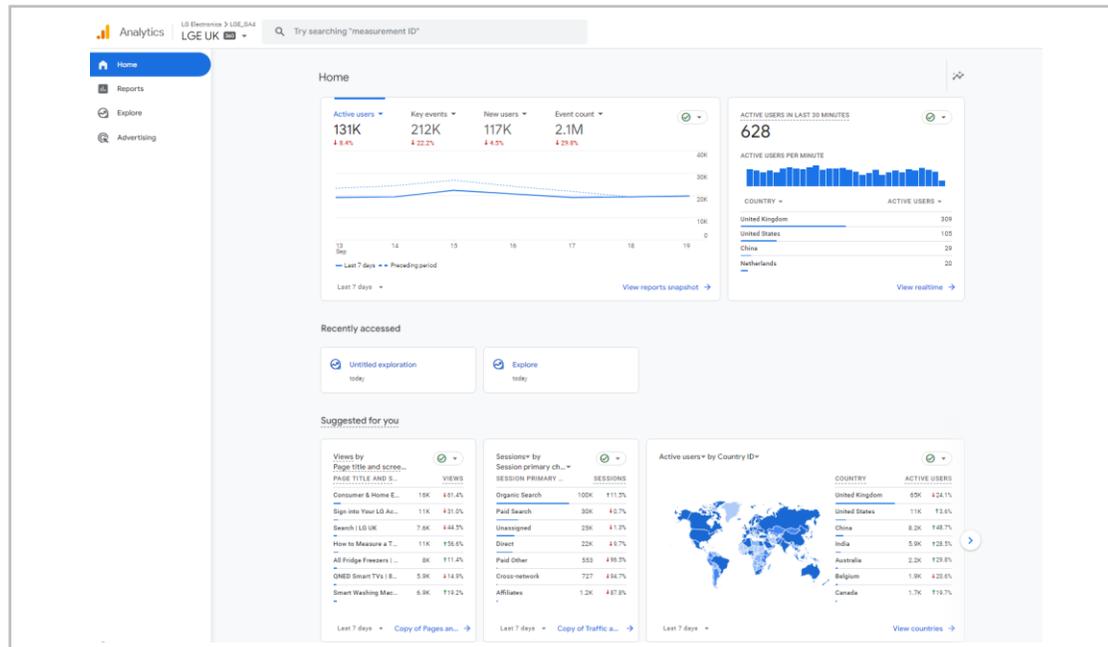
URL: <https://d2cglobalmarketing.lge.com/>

What are the D2C data utilization tools?

Google Analytics 4

GA is a web data analysis solution that can collect LGE.COM's customer behavior data and provide reports related to the collected data.

GA data is also connected to the D2C dashboard to display data and is used for monitoring online business performance



[Google Analytics 4 Main Page]

Features and How to Use

Detailed Data Inquiry

- If you want to check more details beyond what you see in the dashboard, you can directly view data related to users and user behavior on LGE.COM
 - Customer acquisition path (marketing channel): Information on the customer's access path to LG.com (Google direct search, YouTube, banner advertisement, etc.)
 - Customer Behavior Data: Behavioral data within LG.com, including clicking, scrolling, moving pages, selecting product options, and completing purchase forms
 - Customer Path: Information about the path from visit to purchase
 - Page interest: number of page visits/stay time/bounce rate, etc

Event Tagging

- Function that tags the actions of users who want to track data within LGE.COM. When added, a request is required through the Help Center

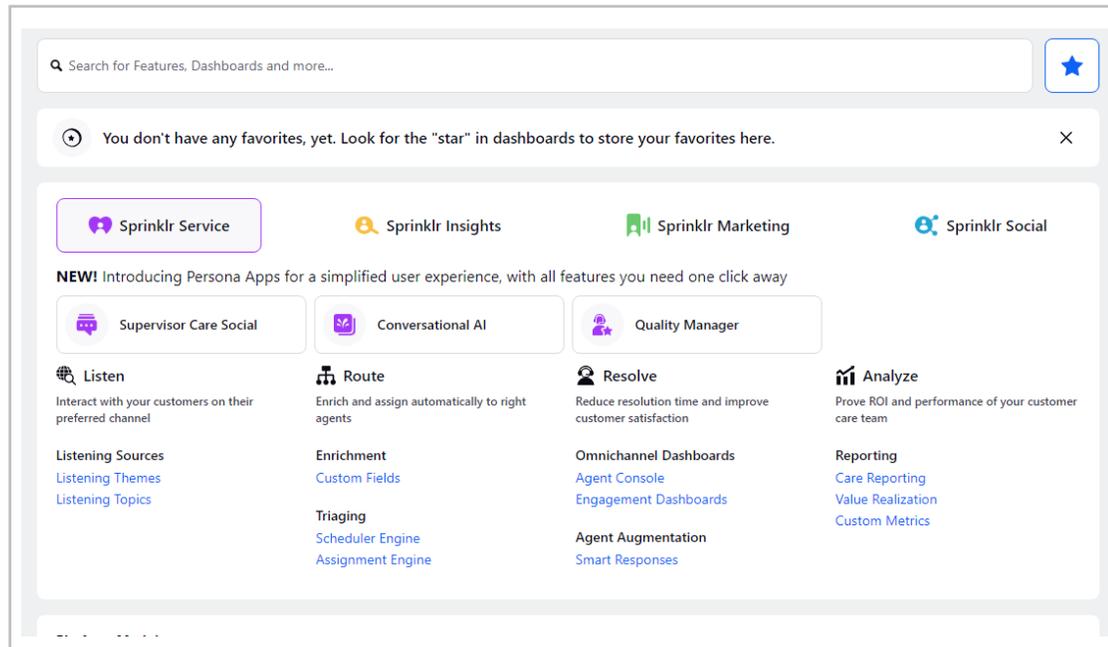
※ How to obtain and access permissions

- **[Apply for permissions]** Apply for GA4 permission according to the prescribed form through the D2C Data Help Center
 - * You must specify the country to be searched, and if you have editor access, you must attach an approval email from the team leader in charge
- **[How to access]** Access the GA4 page (<https://analytics.google.com/analytics/web>) and enter the account information provided

What data tools does D2C use?

■ Sprinklr

It is a corporate social media management platform and customer experience management solution that enables users to post and manage SNS content. It also collects VOC (Voice of the Customer) data from various online channels (news, SNS, blogs, forums, reviews, etc.) and provides insights using an analysis dashboard and AI.



[Sprinklr Main Page]

Features and how to use

Manage social media

- It supports integrated management of social media platforms like Meta and X through a single interface.
- With Sprinklr, users can plan, create, publish, store, monitor media content, and manage marketing campaigns.

Social listening

- Collect VOC data based on online keywords (such as brand names, product names, hashtags) and perform sentiment analysis and monitoring of positive/negative feedback.
- Track VOC volume changes over time, conduct competitor comparison analysis, identify key topics, and detect influencers.

Analytics and reporting

- Configure dashboards by combining user-desired KPIs with Sprinklr metrics.
- Analyze the performance of ongoing campaigns in real-time based on live data.

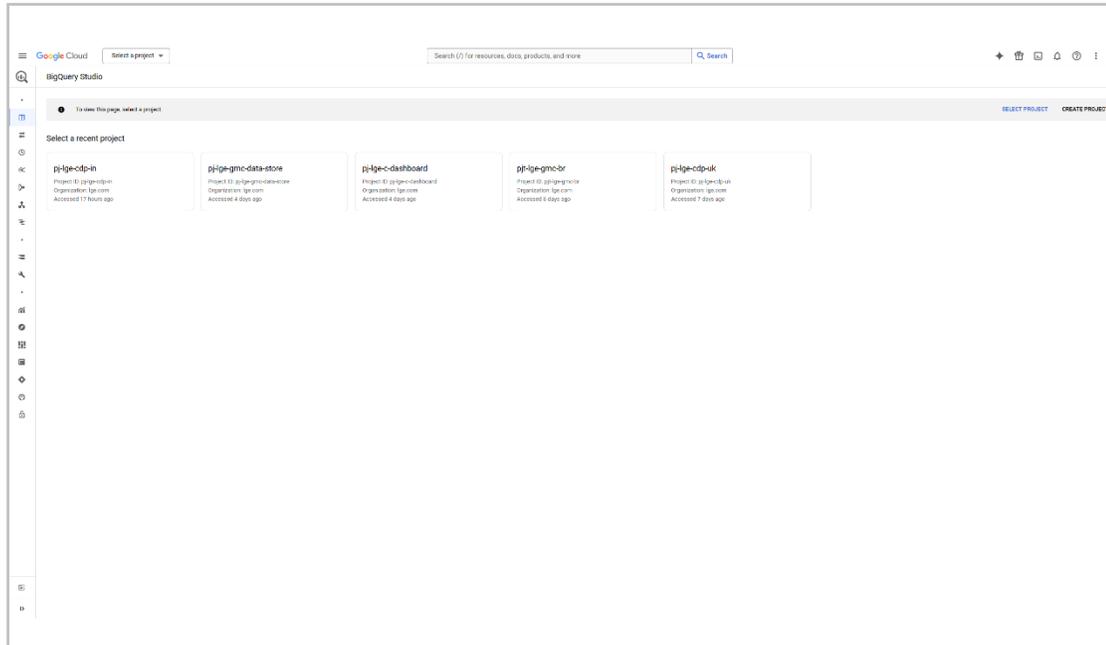
※ How to obtain permission and access

- **[Apply for permissions]** Register inquiries according to the Sprinklr permission request form in the D2C Data Help Center.
 - * For employees of partner companies, an LGE PIC can submit requests on their behalf.
- **[How to access]** Visit the Sprinklr website (<https://space.sprinklr.com/>) and enter the provided account credentials.

What data tools does D2C use?

Google BigQuery

Google BigQuery is a serverless service that handles the complex infrastructure technology needed for storing and analyzing large volumes of data on behalf of users. It creates an environment that allows users to focus on data analysis and deriving insights using Google's own resources.



[BigQuery Main Page]

Features and how to use

Handling large amounts of data

- It utilizes a distributed data processing architecture capable of handling petabyte-scale data (1,024 times that of a terabyte).
- This allows for the rapid analysis of large-scale data and the efficient execution of data processing and analysis tasks.

SQL-based queries

- Users can write SQL queries directly and define functions to facilitate data analysis.
- This allows for quick retrieval of data analysis results and seamless integration with various programming languages.

Integration and scalability

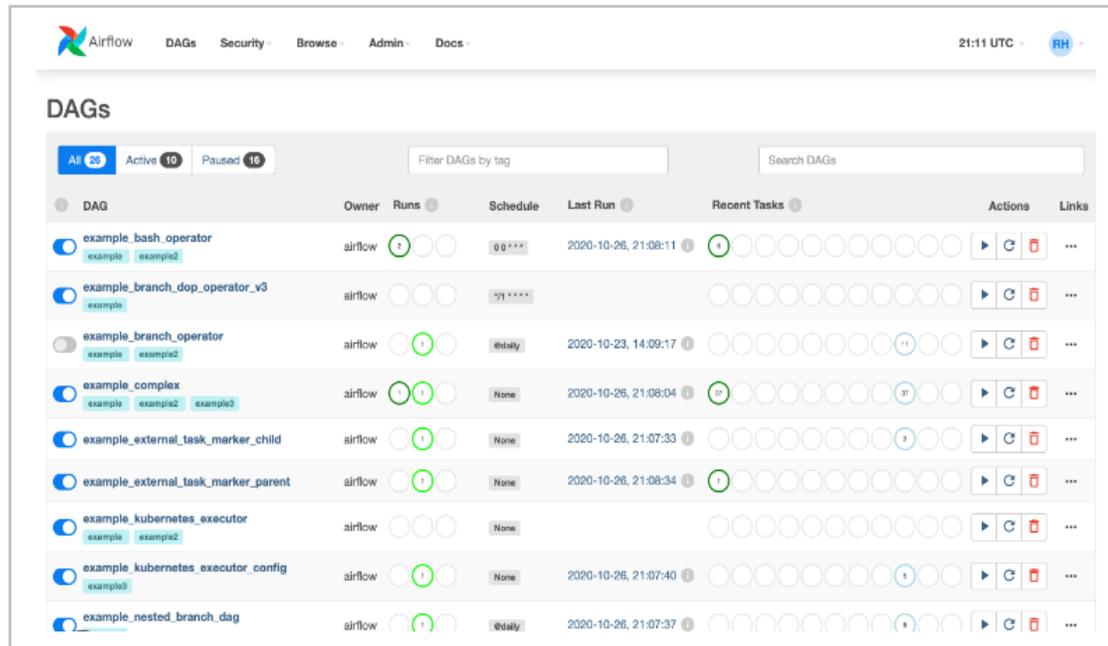
- It can be smoothly integrated with other GCP services, allowing for easy construction of data processing pipelines.
- As a serverless solution, it offers exceptional scalability and automatically adjusts to accommodate increases in data volume, ensuring high processing performance.

※ How to obtain permission and access

- **[Apply for permissions]** The BigQuery access request should be submitted through an EP-Request approval after the GCP account creation is completed (EP → Work → Request).
- **[How to access]** When accessing the Google Console, users with granted permissions can view projects that have been assigned to them.

Airflow

Airflow is an open-source platform for creating and managing data pipelines. It allows users to design, execute, and monitor complex data processing tasks and workflows. By using a Directed Acyclic Graph (DAG), it visualizes task dependencies, making it easier for engineers to construct pipelines.



[Airflow Main Page]

Features and how to use

Manage data processing workflows

- Design, execute, and monitor complex data processing tasks and workflows.
- This provides engineers with Python code to easily construct data processing pipelines.

Scalability and flexibility

- It supports various data sources and processing tools, offering the flexibility to add custom tasks.
- It can easily integrate with several other platforms (such as BigQuery, Spark, etc.).

Monitoring and alerts

- It provides notifications by integrating with various channels such as email and Slack, allowing real-time monitoring of task execution status.
- It offers a user interface that makes it easy for monitoring personnel to detect issues within the pipeline.

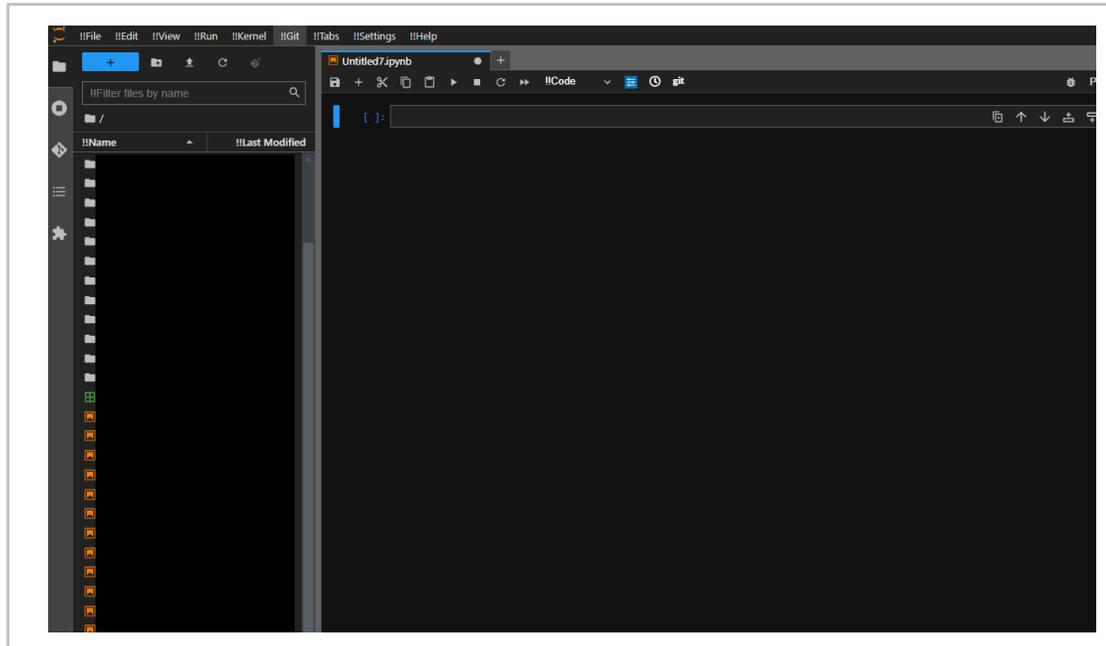
※ How to obtain permission and access

- **[Apply for permissions]** Only data engineers and analysts are permitted to use this service, and the GCP administrator directly grants permissions to the user group based on the instance where the service is installed
- **[How to access]** Enter the domain information of the installed instance directly along with the provided ID and password.

What data tools does D2C use?

Google VertexAI

Vertex AI is a machine learning platform that allows for the customization of ML models. It combines workflows for data science, data engineering, and ML engineering, enabling teams to collaborate using a common set of tools and leverage the benefits of Google Cloud to scale applications.



[Vertex AI Jupyter Lab Main Page]

Features and how to use

Jupyter Lab

- It provides an integrated development environment for data science, machine learning, data analysis, and data visualization.
- It allows for easy management of complex projects and offers various extension functionalities.

User-only specifications

- It allows for configuring analysis specifications by integrating with the resources needed for ongoing projects.

For advanced users only

- It provides an environment where advanced users can freely implement their desired tasks using programming languages such as Python and R, allowing them to work according to their capabilities.
- Users should be able to handle the environment in Linux, and this access is not available to general members.

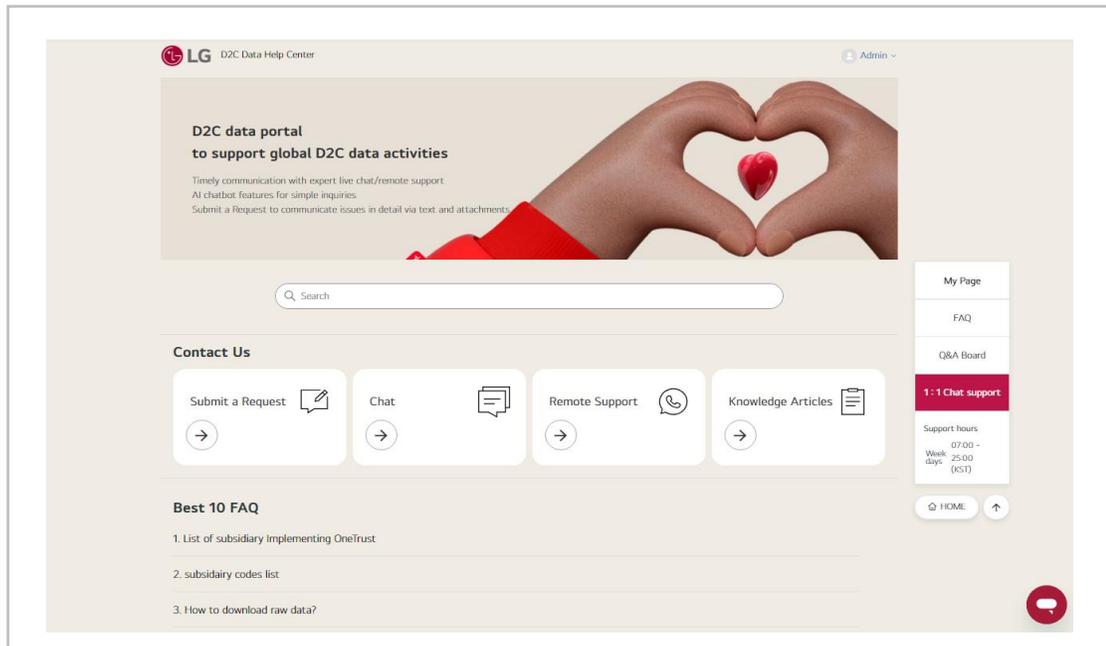
※ How to obtain permission and access

- **[Apply for permissions]** Only data scientists and data engineers belonging to the Data Insights team are granted permissions. The GCP administrator directly assigns permissions based on the user group for the instance where the service is installed.
- **[How to access]** Enter the domain information of the installed instance directly along with the provided ID and password

What data tools does D2C use?

D2C Data Help Center

In order to enhance the data utilization capabilities of D2C group employees, we offer support services through one-on-one real-time consultations, chatbots, and a Q&A board. These services include assistance with using the D2C Dashboard Portal, related solutions, interpreting metrics, and data extraction/analysis.



[D2C Data Help Center Main Page]

Services and coverage

Service Provision Method

- 1:1 Chat/Video Consultation * Support hours: 07:00 ~ 25:00 (KST)
- Q&A Board
- AI Chatbot
- FAQ Articles

Service Coverage

- D2C Dashboard Portal Dashboard New requests/edits and data consistency checks
- GA4 tagging requests and data verification
- D2C data extraction and analysis requests
- Sprinklr account/topic/dashboard creation
- Beausable account/heatmap creation, etc.

※ How to obtain permission and access

- For LGE employees, access is available through SSO integration without any additional procedures.
- For partner companies, an AD account (abs@lge.com) is required for access. However, one-on-one chat/video consultations can be used without a separate permission request.
- You can access the D2C Dashboard Portal's 'Help Center' menu or directly enter the URL (<https://lge5422.zendesk.com>).

URL: <https://lge5422.zendesk.com>

II. Detailed usage instructions

1. D2C Dashboard Portal

2. Google Analytics 4

3. Sprinklr

4. Google BigQuery

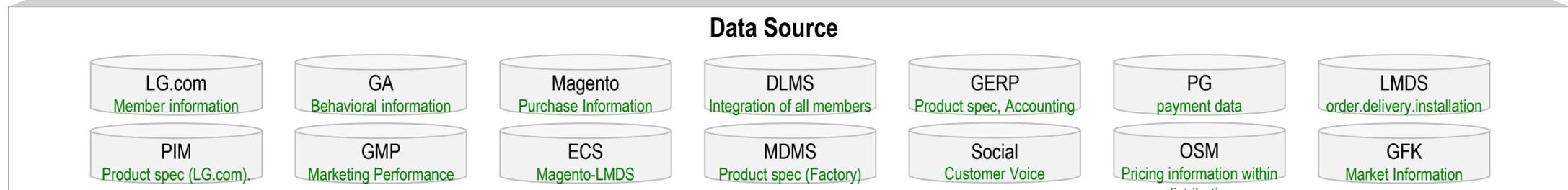
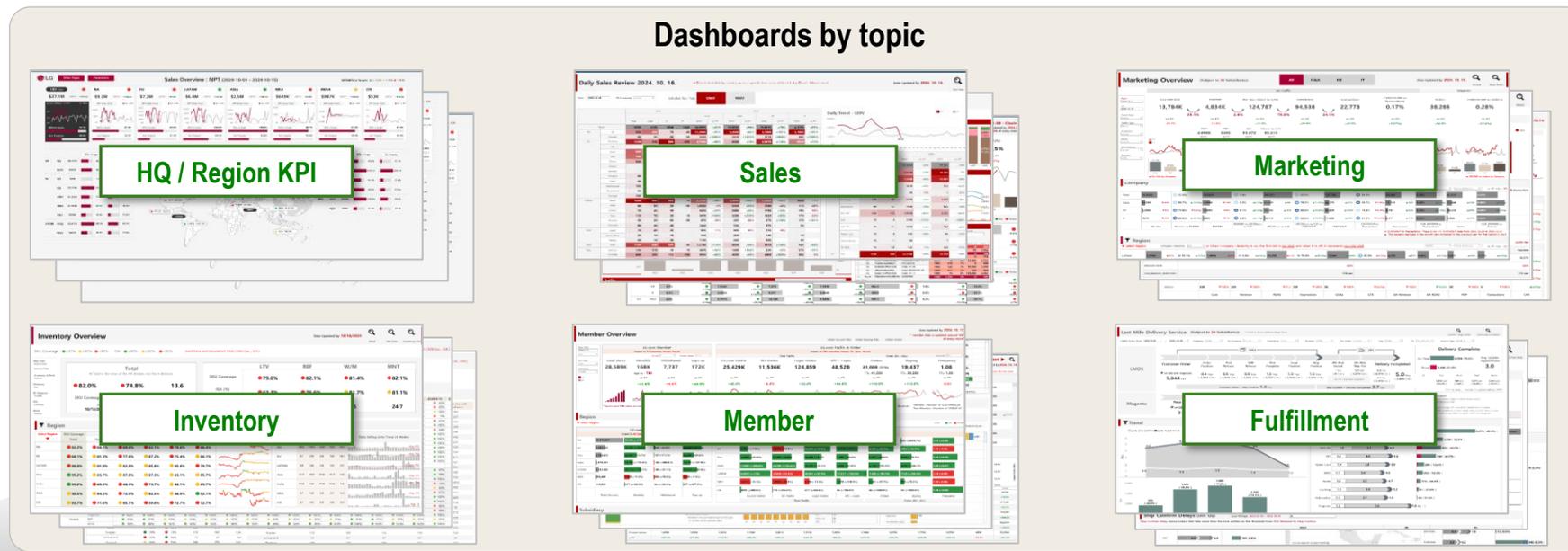
5. Airflow

6. Google VertexAI

7. D2C Data Help Center

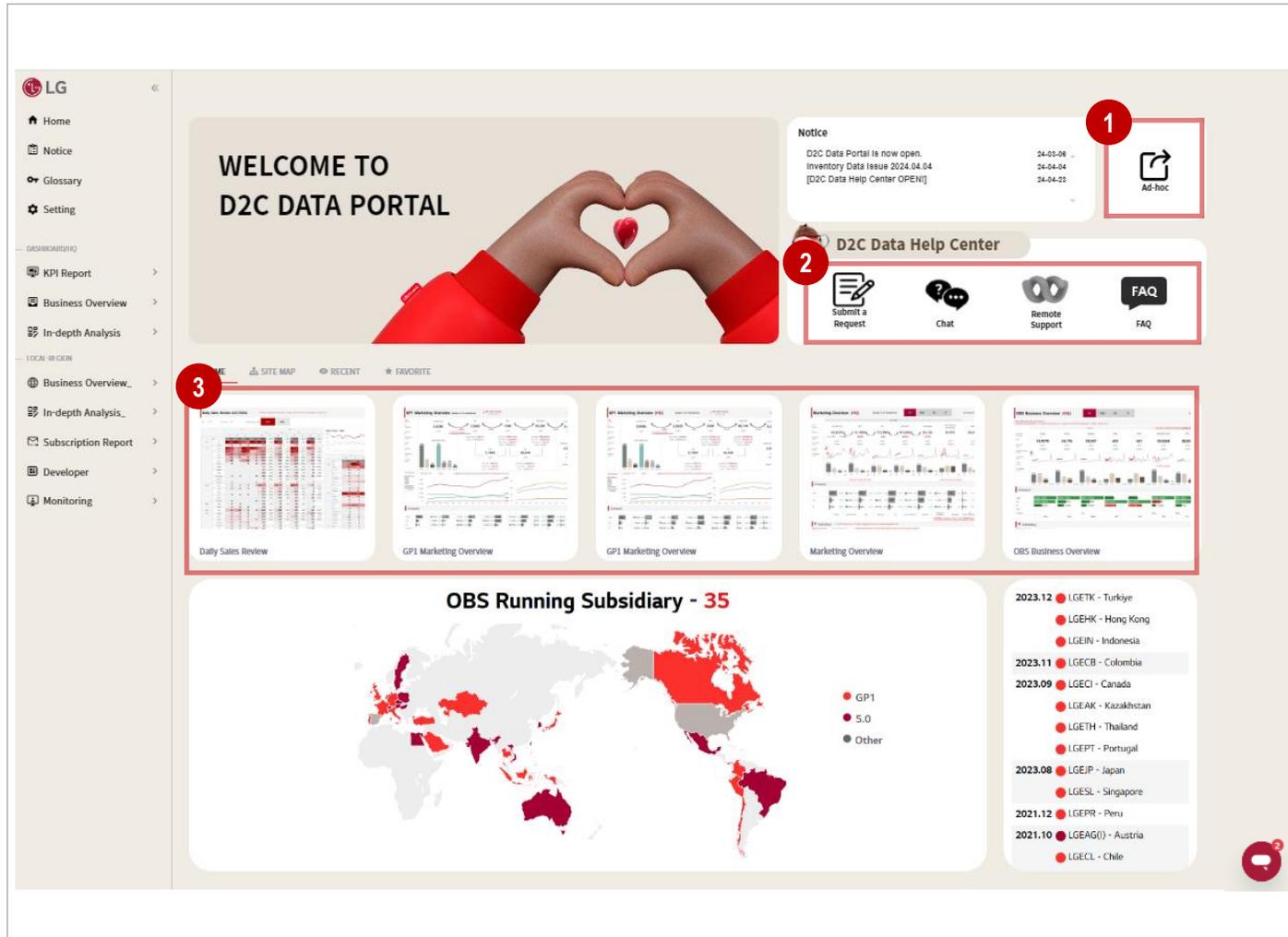
D2C Dashboard Portal Overview

D2C Dashboard Portal creates and provides topic-specific dashboards based on data from various sources so that you can utilize them even without expert knowledge of data



D2C Dashboard Portal Basic screen composition

1. D2C Dashboard Portal



- 1** Move to Ad-Hoc dashboard view page created by HQ/Region
 - ※ If you have a data view that needs to be checked regularly, you can request the creation of an AD-Hoc dashboard through the Help Center
 - ※ If you have editor permission, you can create it yourself and share it among executives and employees
- 2** If you need support for the use of D2C data, including the Dashboard, submit a ticket to the Help Center through the menu
- 3** You can preview the image of the main dashboard, and click to go to the relevant dashboard

D2C Dashboard Portal : Dashboard list (1/4)

Category	Dashboard Name	Description	Main Data	Update Cycle
Business Overview				
Sales_GMV	OBS Business Overview	This is a dashboard where you can check the overview of OBS sales and traffic.	Sales, Units, Orders,...	Daily(Day-2)
	Daily Sales Review	This is a dashboard where you can check daily OBS sales trends.	GMV, NMV, Sales Qty	Daily(Day-1)
	Daily Performance	This is a dashboard where you can check daily OBS sales, traffic, and inventory trends .	GMV, PDP, Stock, WOA,...	Daily(Day-2)
	Weekly Funnel	This is a dashboard where you can check the weekly funnel from LG.com PDP traffic to sales of major business divisions (H&A, HE, IT)	PDP, ATC, CVR, GMV	Weekly(Week-1)
	D2B2C Overview	This is a dashboard that analyzes actual D2B2C orders based on Customer Group, Coupon Customer Group, and Coupon Rule Name. You can check GMV based on Order Date and NMV based on Sales Date.	GMV Revenue, Units, ASP	Daily(Day-1)
Sales_NPT	OBS Subsidiary Overview	This is a dashboard that explains OBS cost separation and ISA overview.	Sales, FP, GMV, NMV, PDP, ISA	Daily(Week-1)
	Weekly Sales Review	This is a dashboard where you can check weekly OBS sales trends and monthly goal achievement rates.	Net Sales(NPT), TTL GR,...	Weekly(Week-1)
FN_Closing	P&L Overview	This is a dashboard where you can check the overview of OBS sales proportion, net sales, and operating profit.	Net Sales, COI(%), MP(%),...	Month(Month-1)
	Monthly Sales Review	This is a dashboard where you can check monthly OBS sales and goal achievement rate.	Net Sales(NPT), Progress,...	Month(Month-1)
	P&L Detail	This is a dashboard where you can check the details of OBS sales.	Net Sales, COI(%), MP(%),...	Month(Month-1)
	OBS Ranking Analysis	This is a dashboard that analyzes the CPS Net Sales of all customers by corporation, checks the sales ranking of OBS among all customers, and supports the development of strategies to increase the proportion of OBS.	Sales, Rank of OBS	Monthly

D2C Dashboard Portal : Dashboard list (2/4)

Category	Dashboard Name	Description	Main Data	Update Cycle
Business Overview				
Marketing	Marketing Overview	This is a dashboard that allows you to check the customer's purchasing journey by region, country, BU, and division	Visit, PDP, ATC, Orders, CVR	Daily(Day-2)
	GP1 Marketing Overview	This is a dashboard that allows you to check by region, country, BU, and division by focusing on the product list page and product purchase page during the customer's purchase journey. This is utilized in GP1 countries	Visit, PLP, PBP to CHEKCOU,...	Daily(Day-3)
	Campaign Performance	This is a dashboard where you can check campaign trends by region, country, BU, and division. You can check various channels and campaigns that have flowed into LG.COM	Campaign, Session Duration,...	Daily(Day-3)
	Campaign Ads Performance	This is a dashboard where you can check advertising costs and performance Data is based on CM360 and Google Ads	Cost, Impression, ROAS, CTR,...	Daily(Day-3)
	Products Funnel	This is a dashboard that allows you to see the customer purchase journey for each product and also check the products with the most product detail pages	ATC, Checkout, Transactions,...	Daily(Day-2)
SKU Coverage & ISA	Inventory Overview	This is a dashboard where you can check the overview of SKU coverage and inventory (ISA, WOA) of major departments (LTV, REF, W/M, NMT)	SKU Coverage, ISA, WOA(4Week)	Daily(Day-1)
	SKU&ISA Daily	This is a dashboard where you can check SKU Coverage and ISA by country and department on a daily basis	SKU Coverage, ISA	Daily(Day-1)
	SKU&ISA Summary	This is a dashboard where you can check SKU coverage and inventory-related figures by country.	SKU Coverage, ISA, Stock	Daily(Day-1)
Member	Member Overview	This is a dashboard that allows you to check the number of new customers and see visit trends of logged in customers. You can classify your customers into new, existing, remaining, and active customers to see which divisions have the most customers and their payment methods	Members, Visitor, Buying,...	Daily(Day-2)
	Coupon Usage	This is a dashboard where you can check which coupons are used the most and what the discount rate is by region, country, and division	Coupon, Welcome Coupon, Discount, Orders	Daily(Day-1)

D2C Dashboard Portal : Dashboard list (3/4)

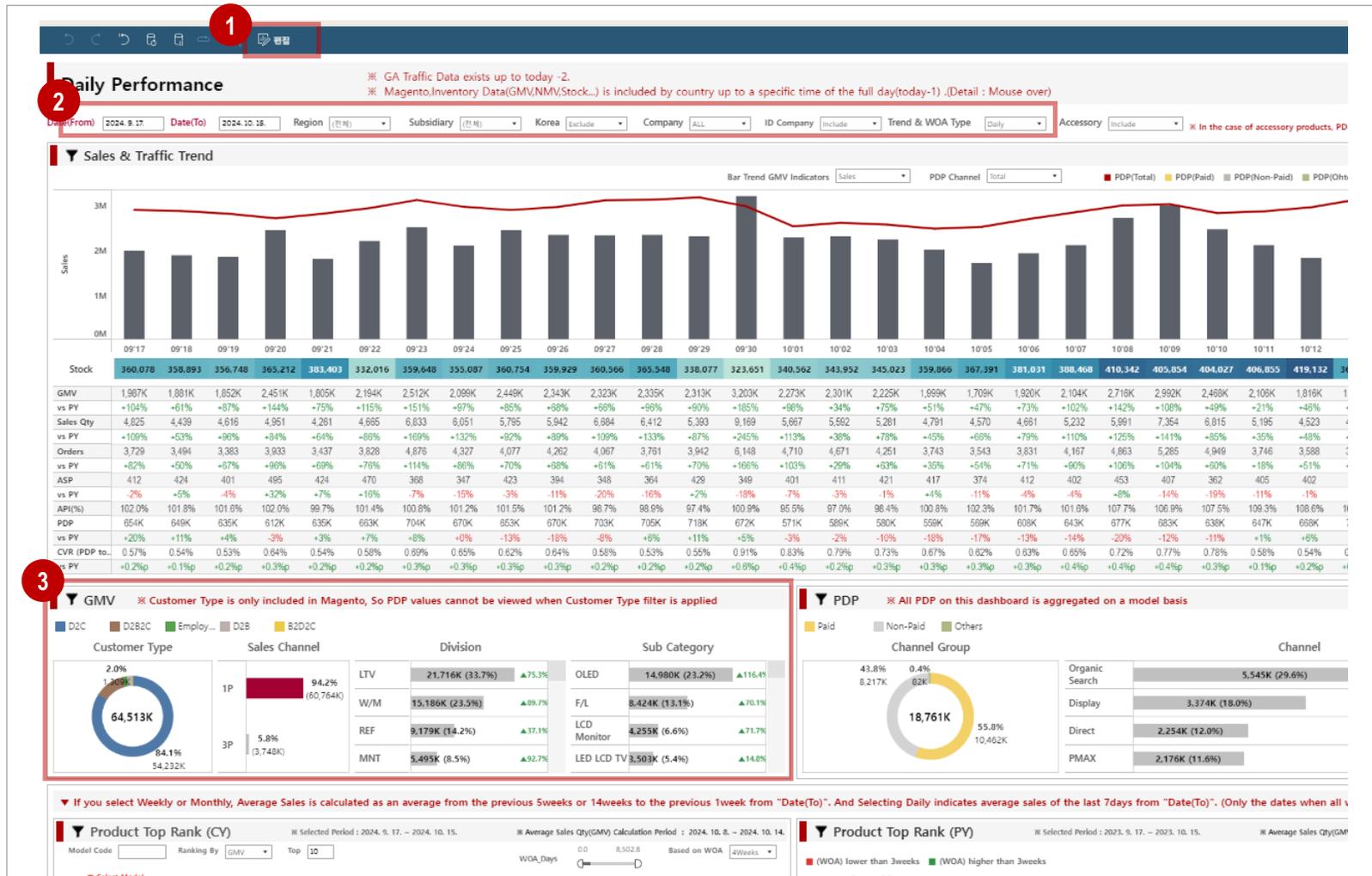
1. D2C Dashboard Portal

Category	Dashboard Name	Description	Main Data	Update Cycle
In-depth Analysis				
On-site Analysis	GMV to NMV Overview	This is a dashboard where you can check sales by delivery status (NMV, In Progress, Cancel, Return)	GMV, NMV, Cancel,...	Daily(Day-1)
	Checkout Deep Dive	This is a dashboard where you can check the final number of orders in steps 1 to 3 of checkout after ATC.	ATC, CHECKOUT, Transactions,...	Daily(Day-2)
	Cancel & Return Breakdown	This is a dashboard where you can check the values of Cancel and Return based on GMV and NMV	GMV, Cancel, Return,...	Daily(Day-1)
Up/Cross-Selling	Multiple Purchase	This is a dashboard that shows the combination of two or more types of OMD purchased together with one Order ID based on Magento	PTO, Multiple/Single Product,...	Daily(Day-1)
	Package Deal	This is a dashboard where you can check overall trends regarding Package Deal. (Order, AOV, UPT, etc.)	Product Combination, Orders, Discount	Daily(Day-1)
Fulfillment	Order Visibility	This is a dashboard that connects GERP and LMDS(TMS in some countries) to track the delivery stage by order number and shows the delivery status by corporation at the time of inquiry	Current, Last 90 Days, ETA, RMA	Daily(Day-1)
	Last Mile Delivery Service	This is a dashboard that allows you to view the delivery process after ordering based on LMDS.	LMDS Orders, Actual Arrival Day, Updated A ppt.	Daily(Day-4)
	Last Mile Delivery Service(US)	This is a dashboard where you can view the delivery process after ordering based on LMDS-US.	LMDS Orders, Actual Arrival Day, Return	Daily(Week-1)
Marketing Insights	GMC			
	SEO General	This is a dashboard that shows the customer purchase journey divided by inflow channel and allows you to check the proportion of natural acquisition	Impression, Click, CTR	Daily(Day-2)
	SEO Technical	This is a dashboard where you can check the status of crawling URLs	Status Code, Canonical Status,...	Weekly, Monthly(Week-2)
	Affiliate Marketing	As part of paid advertising, this is a dashboard that allows you to check the costs and performance of affiliate marketing.	Order Count, Revenue, ROAS,...	Daily(Day-1)
	Bazaarvoice Review	This is a dashboard where you can check the number of reviews and ratings by corporation and model.	Review Count, Average Rating	Weekly(Week-1)
	eCRM Mkt. Performance	This is a dashboard that allows you to check the sending/confirmation of eCRM campaigns and the performance of inflows to lg.com	Open, Click, PDP, Transaction	Daily(Day-1)
	GMP Naming Convention	This is a dashboard that allows you to easily identify correct and incorrect use of LGE naming rules in campaigns activated in the GMP ecosystem	%Adherence, Total, Incorrect, New, Corrected	Daily(Day-1)

D2C Dashboard Portal : Dashboard list (4/4)

Category	Dashboard Name	Description	Main Data	Update Cycle
In-depth Analysis				
Retail Channel	Digital Channel Management	This is a dashboard that allows you to check the current market share of LG Marketing based on designated distributors. (Stock, Banner SOV, Price, Review, etc.)	Sell-Out, Banner SOV(%), Review	Weekly(Week-1)
	Customer Awareness	Based on Sprinklr data, this is a dashboard that allows you to check positive and negative customer reactions to LG online.	Positive Mentions, Negative Mentions, Reviews	Weekly(Week-1)
	Global Retail Traffic	This is a dashboard that allows you to view advertising efficiency in social media based on Flixmedia data.	Impressions, Interactions, Retail	Daily(Day-3)
	Online Store Management	This is a digital monitoring report that allows you to check the status of your business with major global distribution partners and competitors.	Banner, Search, Product list, Top Rank	Daily(Day-1)
Marketplace	Price Positioning	This is a dashboard that helps you easily compare the price range of major online markets and OBS for each corporation and establish an appropriate positioning strategy.	Market, Seller, SKUs, API(%), Price	Daily(Day-2)
	Amazon VC Overview	This is a dashboard that allows you to check OBS sales trends based on Amazon data.	Sales, ISA, WOA(4Week)	Daily(Day-5)
	OBS Sales for GFK	This is a dashboard that allows you to check OBS sales performance based on GFK data.	Sales, Sales Qty, RPG	Daily(Day-1)
	GFK M/S Overview	This is a dashboard that allows you to check Monthly Sales by competitors and brands based on GFK data.	Sales, Unit, ASP	Monthly
Raw Data Download				
Magento & Inventory		This is a dashboard dedicated to downloading Magento and Inventory raw data.	GMV, NMV, Units, ISA...	Daily(D-1)
Traffic		This is a dashboard dedicated to downloading GA Traffic raw data.	Visit, PLP, PDP, Checkout, Transaction,...	Daily(D-1)
Order Visibility		This is a dashboard dedicated to downloading Order Visibility raw data.	Delay Flag, Fulfillment Status, Service Type	Daily(D-1)

How to use the dashboard : Inquiry - data inquiry and operation monitoring



1 Explorer users can edit the dashboard and reorganize it into their own dashboard (see back page)

- ※ Tableau Access
- Viewer: Dashboard view, data download possible
- Explorer: Dashboard screen can be edited and saved

2 Easily search data by providing various filters such as the period, region, and division you wish to view

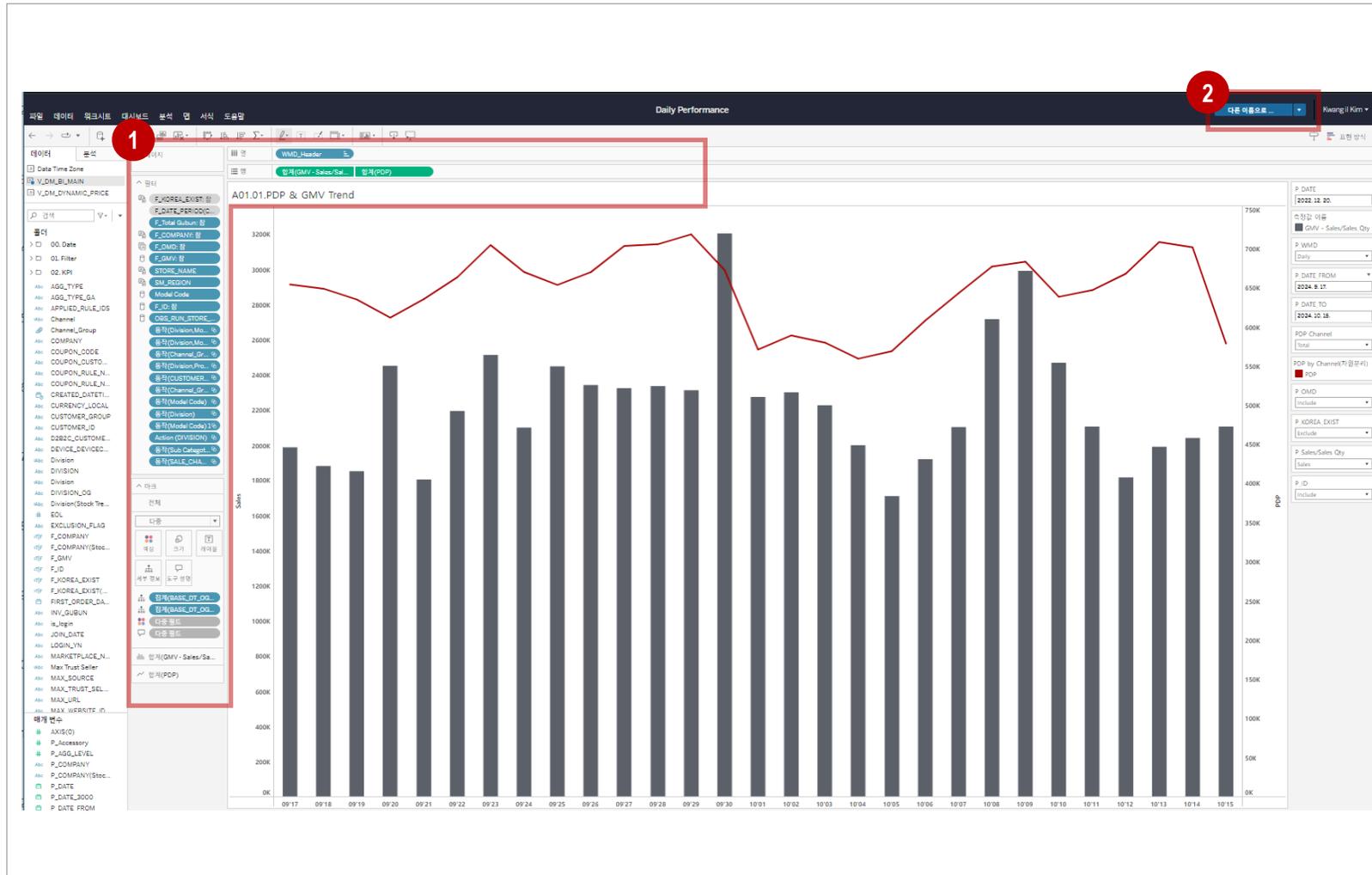
3 Sheets with the motion filter* function can be used as a filter for other sheets by selecting the graph of the sheet

*The part with the motion filter function is marked with a funnel shape or SELECT ~ label in the title

How to use the dashboard : Customize and Deep Dive – Edit Dashboard

※ Explore Access Required

1. D2C Dashboard Portal



- 1 Tableau data and dashboards can be freely modified and customized
- 2 Customized documents must be saved under a different name in personal space

How to use the dashboard : Detailed data inquiry and extraction (1/2)

The screenshot shows a dashboard interface with a data table. At the top right, there is a download button (a square with a downward arrow) and a back button (a curved arrow). A red box highlights the download button, with a red circle containing the number '1' next to it. A red arrow points from this button to a dropdown menu. The dropdown menu is also highlighted with a red box and contains the following options: 이미지 (Image), 데이터 (Data), 크로스탭 (Crosstab), PDF, PowerPoint, and Tableau 통합 문서 (Tableau Workbook). A red circle containing the number '2' is next to the menu. Below the menu is a data table with columns labeled W8 through W18 and rows of numerical data.

W8	W9	W9	W10	M3 W11	W12	W13				2024		
9,350,231	6,509,241	2,761,093	8,125,781	8,048,368	8,951,067	10,813,752						
1,818,893	1,095,971	1,195,392	1,789,051	1,781,537	2,171,869	3,513,508						
550,763	424,377	456,508	591,554	518,042	670,072	697,985						
290,208	135,413	230,563	277,789	262,727	449,381	541,972						
-1,778	27,829	16,905	41,718	34,042	47,139	55,730	50,494	39,836	32,381	90,442	65,809	
6,913	7,842	5,229	4,372	2,757	11,885	15,930	11,789	14,083	18,918	13,980	8,041	
2,291	-846	3,157	9,535	5,306	3,471	3,785	5,755	2,880	4,206	2,893	4,364	
19,674	34,687	1,897	42,504	44,821	30,844	35,336	26,637	24,303	52,255	47,232	16,890	
1,575	3,810	1,143	3,971	2,557	1,725	6,119	1,013	3,068	1,486	5,033	3,159	
2,098	2,740	0	6,290	9,450	4,603	5,676	4,928	3,970	11,564	8,839	7,317	
57,249	57,063	15,493	39,776	53,906	53,550	74,209	60,458	81,411	110,825	105,786	44,886	
10,600	5,568	2,415	3,586	16,794	11,636	17,135	19,880	19,747	31,669	21,995	12,782	
8,831	10,302	976	2,001	2,396	5,549	7,785	2,721	9,298	6,370	11,161	3,843	

1 There is a download button at the top right of every dashboard, and various types of download functions are provided

- Image: Download in png format
- Data: CSV download of data source used in specific sheet
- Crosstab: Download CSV or Excel data aggregated in a specific sheet (used when downloading raw data)
- PDF: Download images in PDF format
- PowerPoint: Download images to slides in PowerPoint
- Tableau Workbook: Download a workbook that can be opened in Tableau Desktop

2 Download image button leads to crosstab download

How to use the dashboard : Detailed data inquiry and extraction (2/2) – Raw Data Download

1 Click to Check the Guide ※ Red filters are used together at the top and bottom

2 Model ※ Select 'On/Off' first!

3 Download

Subsidiary	Measures	Date Type	Division Hierarchy	On/Off	20240923	20240924	20240925	20240926	20240927	20240928
Brazil	Magento : Units - GMV	Daily	On	On	437,137	380,887	412,100	400,000	400,000	400,000
	Magento : Orders - GMV	Daily	On	On	709	643	623	617	592	592
	Magento : ASP - GMV	Daily	On	On	702	674	96%	251	252	252
	Magento : ADV - GMV	Weekly	On	On	244	245	97.2%	269	270	270
	Magento : GMV to NMV(%) - Sales	Monthly	On	On	222	221	82.5%	81.9%	81.9%	81.9%
	Inventory : LG.COM SKU	On/Off	On	On	10,647	10,658	14,204	4,350	24	8
	Inventory : OBS SKU	On/Off	On	On	50	22	8	8	50	22
	Inventory : SKU Coverage	On/Off	On	On	536	544	536	592	544	544
	Inventory : OBS SKU with Inventory	On/Off	On	On	666	646	646	646	646	646
Colombia	Magento : Units - GMV	Daily	On	On	793	41	23	31	42	52
	Magento : Orders - GMV	Daily	On	On	673	38	23	28	30	49
	Magento : ASP - GMV	Daily	On	On	571	562	493	717	542	536
	Magento : ADV - GMV	Weekly	On	On	647	606	493	794	759	569
	Magento : GMV to NMV(%) - Sales	Monthly	On	On	80%	100%	100%	100%	97%	97%
	Inventory : LG.COM SKU	On/Off	On	On	183	184	184	185	185	186
	Inventory : OBS SKU	On/Off	On	On	153	154	154	154	154	156
	Inventory : SKU Coverage	On/Off	On	On	83.5%	83.7%	83.2%	83.2%	83.9%	83.9%
	Inventory : OBS SKU with Inventory	On/Off	On	On	153	154	154	154	156	156

1 Instructions on how to use filters on the Raw Data Download dashboard and how to create Custom View*

* Custom View: This function allows you to pre-set frequently used filters, reducing the hassle of having to specify filters every time on the dashboard

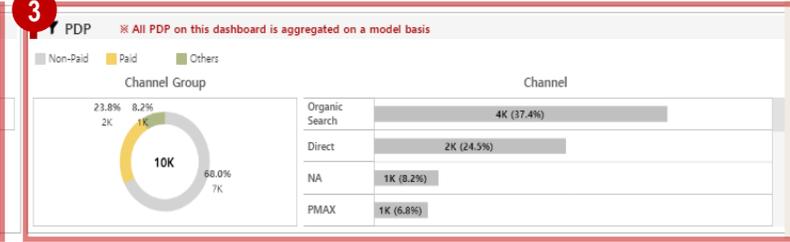
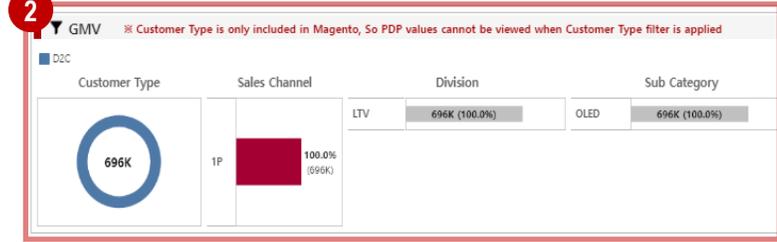
2 Data can be viewed by selecting a filter that suits the purpose of use

* There is a large amount of data, so the data is viewed after setting and applying filters

3 Download the viewed dashboard in Excel format

Utilization/interpretation of major dashboards - ① Daily Performance (1/2)

This is the most basic and most frequently used dashboard designed to identify major performance data such as Sales, Orders, and Traffic status by LG.COM's Daily/Weekly/Monthly unit at a glance and support quick decision-making



① You can intuitively understand Sales and PDP Trends and check Stock, Orders, ASP, API (%), and CVR (PDP to Transaction) indicators at a glance by comparing them with the previous year

- * Orders: Order quantity (number of Order IDs)
- * ASP (Average Selling Price): GMV per product quantity (GMV / Sales Qty)
- * API (Average Price Index): The ratio of OBS selling price to the average price of all sellers
- * CVR (Conversion Rate): Rate of purchase occurring in PDP (Transaction / PDP)

② Identify GMV by Customer Type, Sales Channel, Division, and Sub category

When using Customer Type as an action filter, the filter is not applied to PDP, which is GA data, because Customer Type is Magento data

③ Identify PDP Traffic by Channel Group and Channel Type

All PDPs in this dashboard are aggregated by model

Utilization/interpretation of major dashboards - ① Daily Performance (2/2)

This is the most basic and most frequently used dashboard designed to identify major performance data such as Sales, Orders, and Traffic status by LG.COM's Daily/Weekly/Monthly unit at a glance and support quick decision-making

4 If you select Weekly or Monthly, Average Sales is calculated as an average from the previous 5weeks or 14weeks to the previous 1week from "Date(To)". And Selecting Daily indicates average sales of the last 7days from "Date(To)". (Only the dates when all were sold)

Product Top Rank (CY)
 Selected Period: 2024. 8. 26. ~ 2024. 9. 23.
 Average Sales Qty(GMV) Calculation Period: 2024. 9. 16. ~ 2024. 9. 23.
 Ranking By: GMV, Top: 10, WOA, Days: 0.0, 7.617.0, Based on WOA: 4(Weeks)

RA NK	Model Code	Store Name	Product Name 3	Sub Category	GMV	Sales Qty	Orders	ASP	OBS Price	MAX	MIN	API(%)	PDP	CVR (PDP to...)	Stock	Average Sales(CY)	WOA(CY)
5	LP1419IVSM	Brazil	PORTABLE WRAC		728,644	719	703	1,013					16.3K	4.3%	1	14.4	0.1
6	OLED77G48L	Germany	PREMIUM OLED TV 77	OLED	692,970	264	264	2,625	4,213	22,326	3,855	103.3%	9.1K	2.9%	4	7.7	0.5

5 Product Top Rank (PY)
 (WOA) lower than 3weeks (WOA) higher than 3weeks
 Select Model

6 If you select the top10 Model, Price information will appear below (※ If it doesn't appear, there is no price information data) Click on the right icon to see Price trend for the full model ▶

Model Code		08/26	08/27	08/28	08/29	08/30	08/31	09/01	09/02	09/03	09/04	09/05	09/06	09/07	09/08	09/09	09/10	09/11	09/12	09/13	09/14	09/15	09/16	09/17	09/18	09/19	09/20	09/21	09/22	09/23
OLED77G48LW	API(%)	100.6%	102.4%	103.3%	101.7%	101.8%	104.0%	104.4%	104.9%	103.3%	103.9%	103.5%	104.5%	103.7%	104.5%	104.5%	103.8%	103.8%	104.0%	94.9%	136.7%	107.2%	109.4%	105.6%	106.2%	140.2%	142.2%	104.4%	104.5%	106.3%
	MIN Source Price(\$)	4,242	3,985	4,239	4,216	4,200	4,200	3,988	3,975	3,870	3,975	3,989	3,999	3,889	3,999	3,991	3,972	3,857	3,963	3,986	3,986	3,876	3,764	3,986	3,919	3,933	3,949	3,851	3,851	3,855
	MAX Source Price(\$)	5,903	5,906	5,942	5,942	5,901	5,901	5,901	5,875	5,868	5,881	5,907	5,923	5,923	5,923	5,925	5,886	5,902	5,864	5,877	5,877	5,877	5,877	5,877	5,877	5,877	5,904	5,897	5,897	5,897
OBS Price(\$)	4,596	4,625	4,707	4,673	4,666	4,663	4,666	4,650	4,500	4,560	4,513	4,554	4,554	4,548	4,495	4,493	4,512	4,096	5,877	4,654	4,710	4,608	4,608	5,794	5,964	4,550	4,550	4,651		

By Seller

Model Code	Source	Trust Seller	URL	08/26	08/27	08/28	08/29	08/30	08/31	09/01	09/02	09/03	09/04	09/05	09/06	09/07	09/08	09/09	09/10	09/11	09/12	09/13	09/14	09/15	09/16	09/17	09/18
ELECTRONIC_ electronic4you_at			https://www.electronic4you.at/lg-oled77g48l	Source Price(\$)	4,242	4,232	4,239	4,216	4,200	4,200	4,200	4,186	4,160	4,152	4,166	4,176	4,176	4,176	4,168	4,149	4,143	4,140	4,163	4,163	4,163	4,163	4,163
				API(%)	94.2%	94.2%	100.2%	100.2%	100.2%	100.2%	100.2%	100.2%	100.2%	101.1%	101.1%	101.1%	101.1%	101.1%	101.1%	101.1%	101.1%	101.1%	101.1%	101.1%	101.1%	101.1%	101.1%
FIKTRDOSH_ elektronikshop.at				Source Price(\$)	4,154	4,173	4,170	4,116	4,100	4,100	4,100	4,186	4,194	4,186	4,201	4,211	4,176	4,176	4,168	4,149	4,143	4,140	4,163	4,163	4,163	4,163	4,163

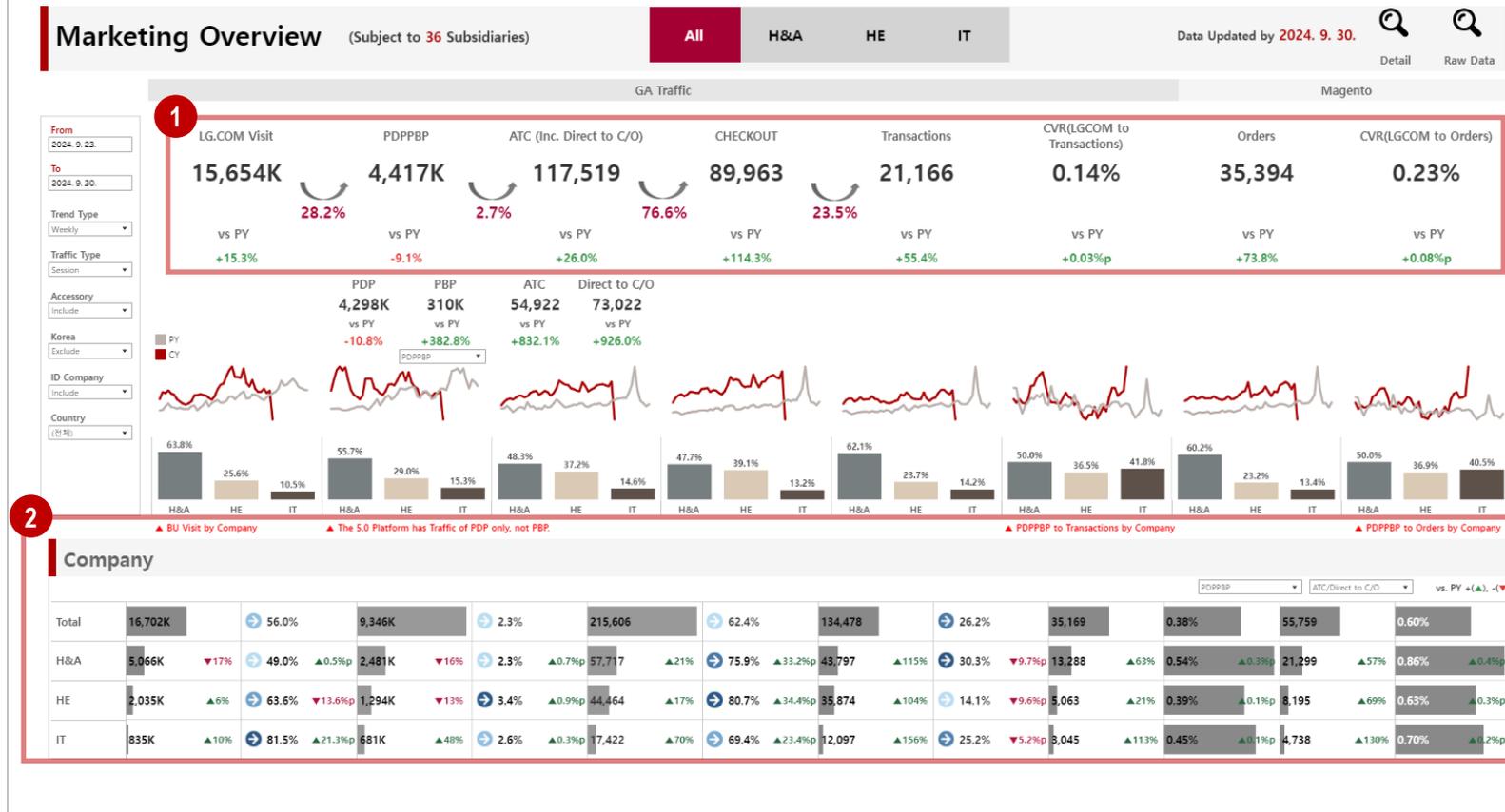
7 Inventory Trend By Product ※ You can only see the model code selected in the product top rank (1) because of the dashboard speed Click on the right icon to see inventory trend for the full model ▶

Model Code	Store Name	Product Name 3	Sub Category
OLED77G48LW	Austria	PREMIUM OLED TV 77	OLED
	Germany	PREMIUM OLED TV 77	OLED

- 4** Provides indicators of top 10 products by PDP/GMV/Sales Qty for selected period
 - Ranking By: Select sorting criteria (PDP/GMV/Sales Qty)
 - Base on WOA: Set the time period for calculating the number of weeks available for sale (WOA)
 - Top: Change the number of products to be exposed (default 10)
- 5** Provides indicators of the top 10 products for the same period of the previous year
- 6** When you click on a model in the top indicators (④,⑤), you can check the Source Price by Seller by date for the model
- 7** Weekly trend analysis of GMV Qty and salable stock for each product allows effective inventory management

Utilization/interpretation of major dashboards - ② Marketing Overview (1/4)

A dashboard designed to maximize the efficiency of marketing activities by comprehensively analyzing LG.COM's marketing performance and understanding traffic and conversion rates across the entire funnel at a glance



1 An indicator to assess stage performance and improvement areas by showing detailed traffic, CVR, and year-over-year changes from Visit to Transaction for a selected period.

2 Check traffic and CVR (conversion rate) for each funnel stage by business division (Company)

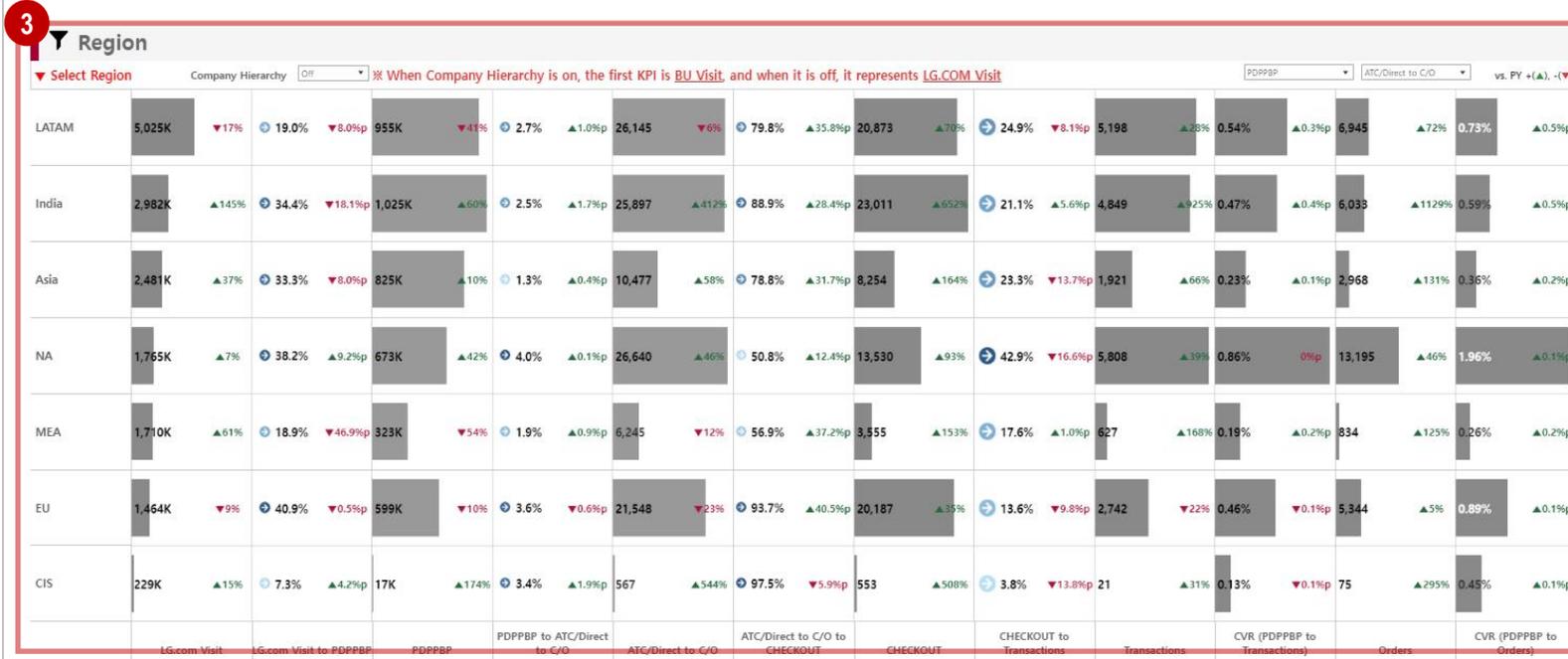
* Funnel: A model that represents the process of inflow of customers and decision to purchase in stages

Supports discovery of insights to evaluate and improve marketing performance by providing traffic status and conversion rate for each funnel stage based on Session or Unique Visitor

※ The dashboard aggregates daily traffic and then calculates it by adding up the data for the period viewed. This may cause your numbers to differ from GA

Utilization/interpretation of major dashboards - ② Marketing Overview (2/4)

A dashboard designed to maximize the efficiency of marketing activities by comprehensively analyzing LG.COM's marketing performance and understanding traffic and conversion rates across the entire funnel at a glance

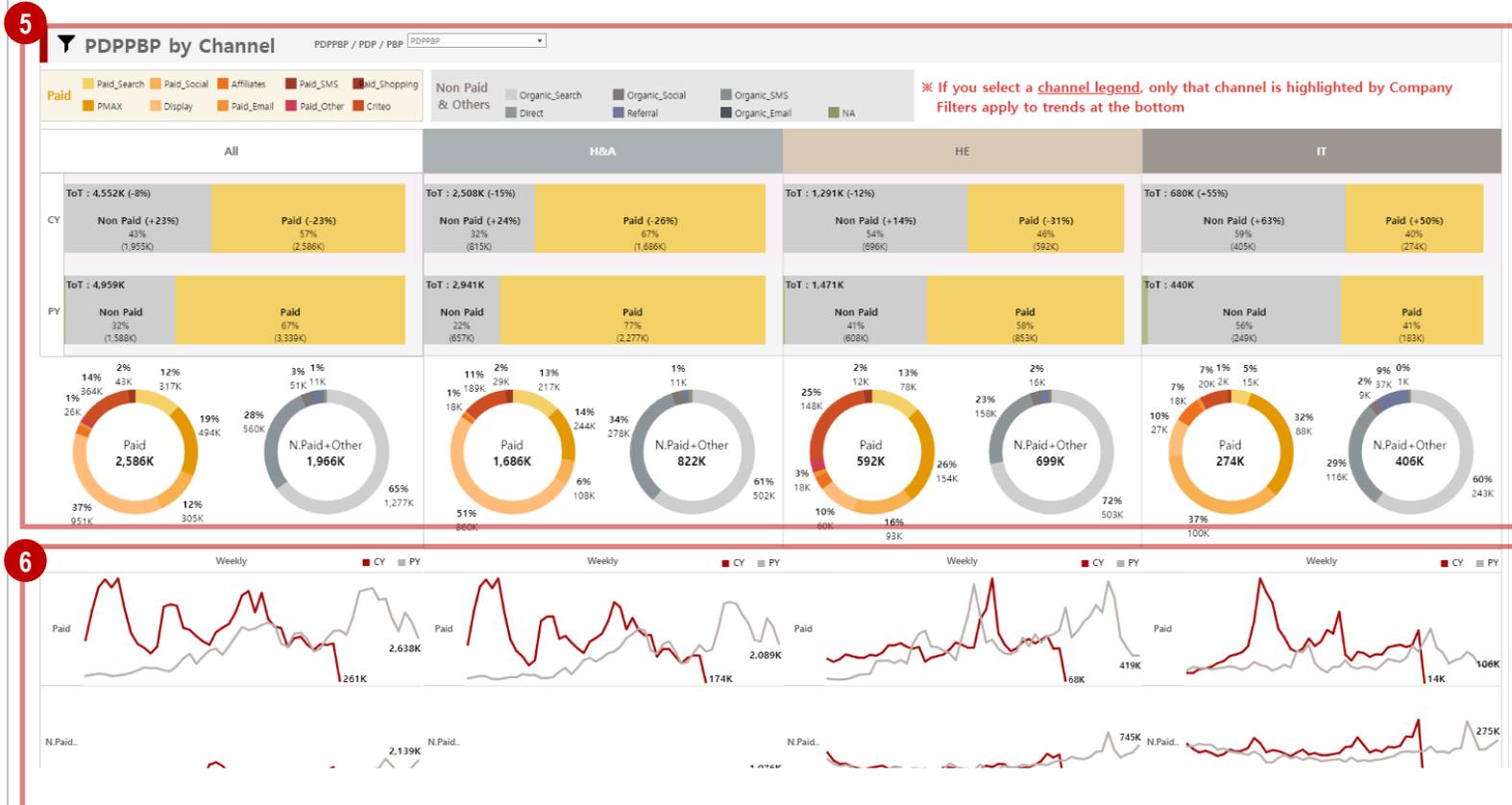


3 Check traffic and CVR (conversion rate) by region for each funnel stage

4 Check traffic and CVR (conversion rate) for each funnel stage by corporation (subsidiary)

If you set Company Hierarchy to On, you can view it in detail by division

A dashboard designed to maximize the efficiency of marketing activities by comprehensively analyzing LG.COM's marketing performance and understanding traffic and conversion rates across the entire funnel at a glance



- 5** Check channel proportion by Channel Type, Paid/Non Paid, and Company based on PDPPBP
- The default is PDPPBP, you can change it to PDP or PBP as needed
 - You can filter for specific channels by selecting the channel legend, and analyze the performance of each channel in detail
- 6** Compare Paid/Non Paid trends to previous years
- * Paid Channel: Marketing channel that pays for advertising (Search advertising, brand advertising, affiliate marketing, etc.)
 - * Non-Paid Channel: Marketing channel that does not pay for advertising (direct influx, natural search, etc.)

Utilization/interpretation of major dashboards - ② Marketing Overview (4/4)

A dashboard designed to maximize the efficiency of marketing activities by comprehensively analyzing LG.COM's marketing performance and understanding traffic and conversion rates across the entire funnel at a glance

7 Division X Channel ※ The value in the () under Transactions represents the percentage of conversions from PDPPBP
※ If you select Division by Company, You can see that the filter is applied by Company in the bar chart, pie chart and trend above

Division: (사중) PDPPBP / PDP / PBP PDPPBP

	W/M	REF	LTV	Audio	PC	MNT						
Display	122,604 (0.02%)	19 (0.01%)	480,015 (0.01%)	51 (0.12%)	54,322 (0.20%)	63 (0.20%)	4,901 (0.01%)	10 (0.20%)	8,572 (0.01%)	1 (0.01%)	14,573 (0.15%)	22 (0.15%)
PMAX	85,050 (0.80%)	680 (0.80%)	84,086 (0.42%)	359 (0.42%)	113,918 (0.56%)	632 (0.56%)	38,060 (0.28%)	108 (0.28%)	4,048 (0.59%)	24 (0.59%)	71,933 (0.98%)	706 (0.98%)
Criteo	68,513 (0.02%)	15 (0.02%)	65,150 (0.02%)	13 (0.02%)	120,062 (0.02%)	26 (0.02%)	23,407 (0.02%)	4 (0.02%)	4,744 (0.02%)	4 (0.08%)	12,520 (0.11%)	14 (0.11%)
Paid_Social	33,141 (0.05%)	16 (0.05%)	27,358 (0.03%)	7 (0.03%)	71,113 (0.02%)	11 (0.02%)	21,985 (0.06%)	14 (0.06%)	66,214 (0.01%)	4 (0.01%)	27,858 (0.04%)	12 (0.04%)
Paid_Search	66,742 (0.56%)	373 (0.56%)	63,540 (0.20%)	127 (0.20%)	65,064 (0.39%)	253 (0.39%)	12,664 (1.55%)	37 (0.29%)	1,317 (0.29%)	1 (0.08%)	9,359 (0.34%)	32 (0.34%)
Affiliates	7,959 (3.96%)	317 (3.96%)	5,622 (3.96%)	224 (3.96%)	16,361 (1.75%)	284 (1.75%)	3,895 (1.24%)	48 (2.77%)	1,371 (2.77%)	38 (2.77%)	16,162 (4.02%)	649 (4.02%)
Paid_Shopping	11,833 (0.97%)	115 (0.97%)	8,717 (0.13%)	11 (0.13%)	10,256 (0.39%)	40 (0.39%)	1,417 (0.71%)	10 (0.71%)	120 (0.83%)	1 (0.83%)	1,446 (0.48%)	7 (0.48%)
Paid_Other	506 (2.17%)	11 (2.17%)	254 (0.39%)	1 (0.39%)	1,803 (1.55%)	28 (1.55%)	16,493 (0.02%)	4 (0.02%)	42 (2.38%)	1 (2.38%)	465 (0.22%)	1 (0.22%)
Paid_Email	3,157 (3.42%)	108 (3.42%)	4,530 (2.72%)	123 (2.72%)	6,937 (1.51%)	104 (1.51%)	1,548 (1.10%)	17 (1.10%)	332 (2.11%)	7 (2.11%)	1,933 (2.48%)	48 (2.48%)
Paid_SMS	388 (1.03%)	4 (1.03%)	747 (2.81%)	21 (2.81%)	1,009 (1.15%)	11 (1.15%)	56 (1.85%)	1 (1.85%)	41 (2.44%)	1 (2.44%)	331 (3.32%)	11 (3.32%)
Organic_Search	192,790 (0.63%)	1,223 (0.63%)	140,936 (0.67%)	950 (0.67%)	411,103 (0.34%)	1,392 (0.34%)	89,498 (0.25%)	222 (0.25%)	22,240 (0.38%)	84 (0.38%)	188,120 (0.35%)	664 (0.35%)
Direct	90,674 (0.95%)	895 (0.95%)	100,153 (1.19%)	1,194 (1.19%)	123,421 (0.81%)	989 (0.81%)	33,676 (0.39%)	131 (0.39%)	43,972 (0.17%)	75 (0.17%)	62,374 (0.72%)	450 (0.72%)
Referral	4,276 (2.13%)	91 (2.13%)	3,266 (0.33%)	272 (0.33%)	9,344 (1.11%)	101 (1.11%)	6,943 (0.29%)	20 (0.29%)	28,509 (0.02%)	5 (0.02%)	7,118 (0.93%)	66 (0.93%)
Organic_Social	10,927 (0.16%)	18 (0.16%)	6,245 (0.72%)	45 (0.72%)	10,502 (0.13%)	14 (0.13%)	7,315 (0.04%)	3 (0.04%)	504 (0.00%)	0 (0.00%)	8,003 (0.19%)	15 (0.19%)
Organic_SMS	331 (1.51%)	5 (1.51%)	357 (9.80%)	35 (9.80%)	461 (1.32%)	6 (1.32%)	133 (2.29%)	3 (2.29%)	15 (0.00%)	0 (0.00%)	55 (3.64%)	2 (3.64%)
Organic_Email	21 (14.29%)	3 (14.29%)	4 (0.00%)	0 (0.00%)	26 (7.69%)	2 (7.69%)	2 (0.00%)	0 (0.00%)			1 (0.00%)	0 (0.00%)
Others	NA	3,683 (0.71%)	2,474 (2.47%)	61 (2.47%)	2,494 (1.84%)	46 (1.84%)	576 (0.52%)	3 (0.52%)	77 (0.00%)	0 (0.00%)	1,235 (1.13%)	14 (1.13%)
	PDPPBP	Transactions	PDPPBP	Transactions	PDPPBP	Transactions	PDPPBP	Transactions	PDPPBP	Transactions	PDPPBP	Transactions

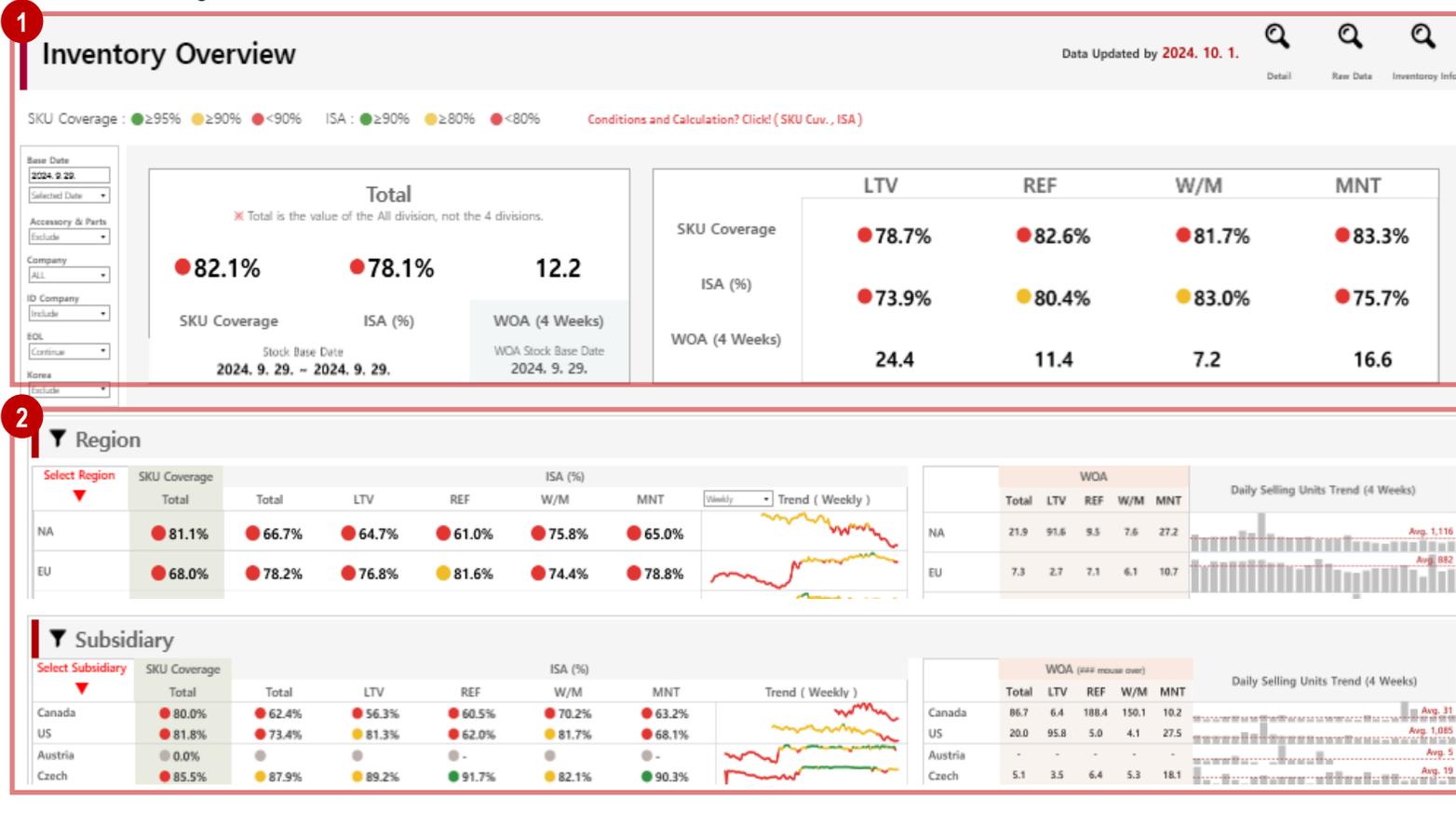
8 Check traffic and CVR (conversion rate) for each funnel stage by channel and division

[How to Use]

- Identify performance and investment effectiveness by channel
- Analyze performance differences due to differences in company marketing strategies and establish customized strategies for each region
- Provides data necessary to establish budget allocation strategy according to channel type

Utilization/interpretation of major dashboards - ③ Inventory Overview (1/2)

This is a dashboard designed to improve the efficiency of inventory management by comprehensively monitoring OBS operation status and inventory status, providing data-based insights to optimize inventory operation and take appropriate actions at the right time



1 SKU coverage, ISA (%), and WOA of the four major product lines can be checked

- * SKU Coverage: Proportion of products sold on OBS among products sold on LG.COM
- * ISA (In Stock Availability): The percentage of products available for sale out of all products sold by OBS in each warehouse
- * WOA (Week of Availability): Evaluating how many weeks sellable inventory can last (quantity in stock / average sales volume per week)
 - ex) If WOA is 2, it means there is inventory available for sale for 2 weeks

2 Check SKU Coverage, WOA, and Units by Region and Subsidiary and analyze trends in SKU Coverage and Units to compare performance by region → Optimize inventory management and sales strategy

* Units: Sales Quantity

Utilization/interpretation of major dashboards - ③ Inventory Overview (2/2)

A dashboard designed to improve the efficiency of inventory management by comprehensively monitoring OBS operation status and inventory status. Provides data-based insights to optimize inventory operation and take appropriate actions at the right time



3 Provides SKU Coverage and ISA Trend for each Product Category, evaluates inventory operation status by division, and supports establishment of customized inventory management strategy

4 Weekly SKU Detail

Weekly Period: 2024. 9. 23. - 2024. 9. 29.
Average Units Period (4Weeks): 2024. 8. 26. - 2024. 9. 22.

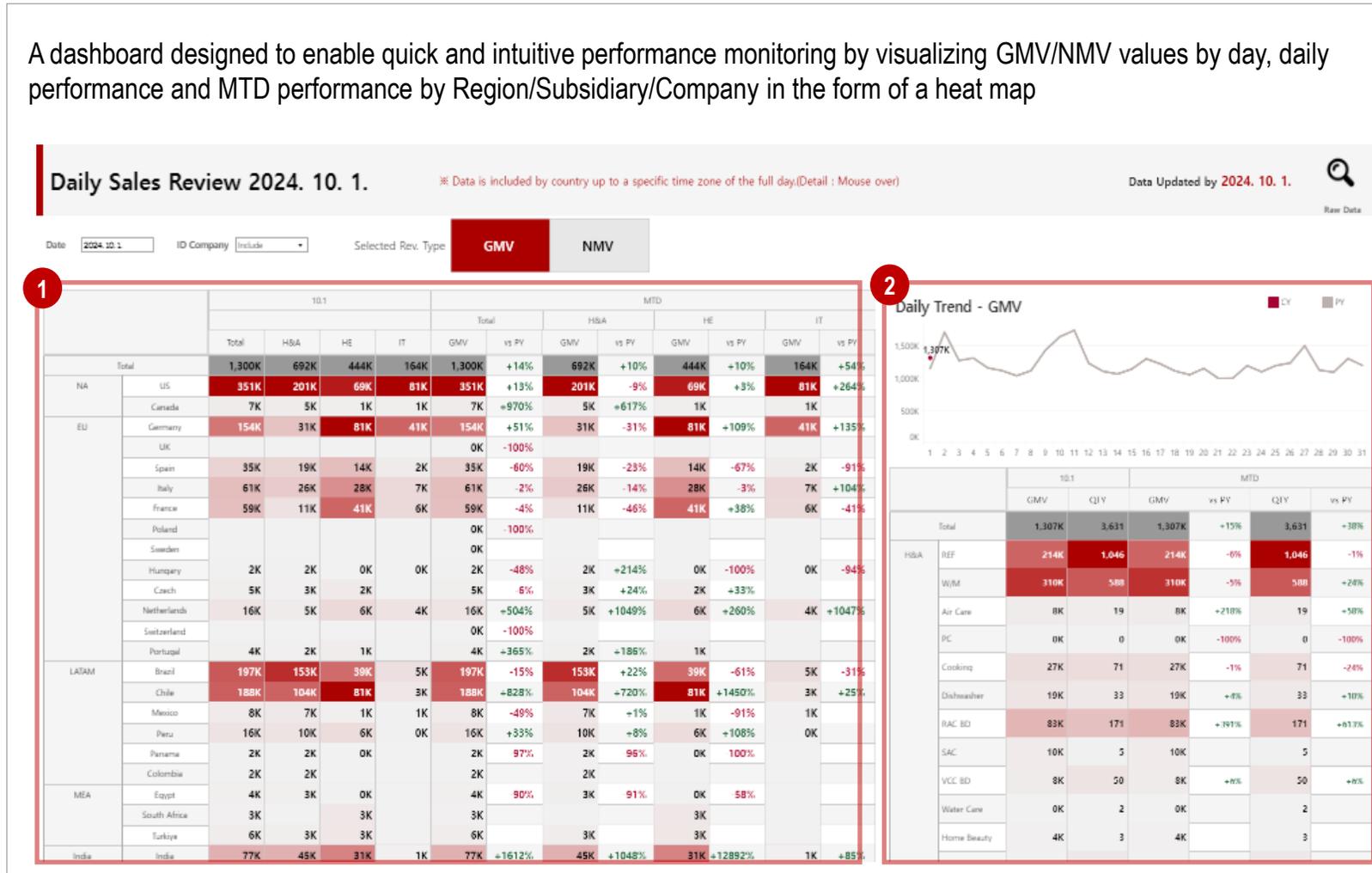
RANK	SKU	Product Name	Division	Subsidiary	Sales	Units	ASP	WOA (4weeks)	Stock	Average Weekly Units	Average Daily Units
1	34WRS0QC-B.AUS	LCD MONITOR 34	MNT	US	392,092	2,135	184	0.0	0	39	6
2	OLED77G4WUA.AUS	PREMIUM OLED TV 77	LTV	US	383,216	155	2,472	85.8	8,005	93	13
3	OLED77C4PUA.AUS	OLED TV 77	LTV	US	234,986	118	1,991	141.2	18,462	131	19
4	MD19GQGE0.ABAE	DEHUMIDIFIER	Air Care	Vietnam	194,075	584	332	0.4	1	2	0
5	OLED65C4PUA.AUS	OLED TV 65	LTV	US	187,777	146	1,286	41.2	9,169	223	32
6	S3-W09AA31C.EB2GAM1	INVERTER	RAC BD	Brazil	172,130	337	511	0.5	20	42	6
7	OLED65C37LA.AEUD	OLED TV 65	LTV	Germany	145,903	121	1,206	0.2	4	21	3
8	OLED77C37LA.AEUD	OLED TV 77	LTV	Germany	142,623	83	1,718	1.0	46	47	7
9	S3-Q12JA33K.EB2GAM1	INVERTER	RAC BD	Brazil	142,263	280	508	1.2	252	212	30
10	S90TR.DUSALLK	SOUNDBAR + HTS S...	Audio	US	132,828	207	642	0.0	0	181	26
11	AS10GDBY0.ABAE	AIR SOLUTION	Air Care	Vietnam	131,487	183	719	3.2	186	58	8

4 Detailed sales information and inventory information for each SKU are displayed to enable detailed inventory management

- * Average Selling Price (ASP): GMV per unit of product sold for all transactions that successfully complete the payment process
- * Average Weekly Units: Sales volume per week calculated using sales history over the past 4 weeks

Utilization/interpretation of major dashboards - ④ Daily Sales Review

A dashboard designed to enable quick and intuitive performance monitoring by visualizing GMV/NMV values by day, daily performance and MTD performance by Region/Subsidiary/Company in the form of a heat map



1 Provides daily performance and MTD performance by Region/Subsidiary/Company. Analyze monthly performance and quickly identify regional assessments by comparing MTD to the same period last year

2 You can understand sales trends by comparing MTD with the same period last year in a time series graph, and you can understand detailed daily performance and MTD performance by division

Utilization/interpretation of major dashboards - ⑤ ISA & SKU

It is designed to analyze the inventory status by SKU on a daily basis according to Subsidiary/Division, and supports quick decision-making by intuitively visualizing inventory status through traffic light indicators

SKU&ISA Division Daily Conditions and Calculation? Click! (SKU Cuv., ISA)

ISA Store Daily
SKU&ISA Division Daily
ISA TopSelling Daily
ISA - Daily - Model Salable Units
SKU - Daily - Model Salable Units
Inventory Download Raw Data

기간선택(연월) 2024. 4. 17 기간설정(연월) EOL Continue Division Subsidiary SKU/ISA Unit Type OMD Company ID Company Include

※ Select Subsidiary to view the data.
 ※ If you select too much data, the view might not be able to load the data grid.

		2024/4/1	2024/4/2	2024/4/3	2024/4/4	2024/4/5	2024/4/6	2024/4/7	2024/4/8	2024/4/9	2024/4/10	2024/4/11	2024/4/12	2024/4/13	2024/4/14	2024/4/15	2024/4/16	
US	REF	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	85%	85%	85%	85%	
	W/M	86%	86%	86%	86%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	
	Dishwasher	93%	93%	93%	93%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	92%	
	RAC	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	RAC BD	64%	64%	64%	64%	61%	61%	61%	61%	61%	61%	61%	61%	61%	61%	61%	61%	
	Air Care	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	Cooking	86%	86%	86%	86%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	84%	
	LTV	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	MNT	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	VCC BD	86%	86%	86%	86%	89%	89%	89%	89%	89%	89%	89%	89%	100%	100%	100%	100%	
	Audio	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	AV	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
PC	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		
Projector	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		
Vacuum	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		
Spain	REF	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%	
	W/M	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	
	Dishwasher	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	Cooking	78%	78%	78%	78%	78%	78%	78%	78%	78%	78%	78%	78%	78%	78%	78%	78%	
	LTV	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	94%	
	MNT	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	
	SAC	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	VCC BD	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	Audio	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%	86%
	PC	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%	88%
Projector	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		
Poland	REF	95%	97%	91%	92%	92%	92%	92%	92%	92%	92%	92%	97%	97%	92%	92%	92%	

1 Provides various indicators according to analysis purpose

- ISA Store Daily : Check Daily ISA performance by Subsidiary
- SKU&ISA Division Daily : Check Daily SKU Coverage/ISA performance by Subsidiary/Division
- ISA TopSelling Daily : Check Daily TopSelling/TopSelling ISA/ISA by Subsidiary/Division
- ISA-Daily-Model Salable Unit : Check Salable Units by Subsidiary/Division/SKU
- SKU-Daily-Model Salable Unit : Check LG.COM flog/OBS flag/Salable Units by Subsidiary/Division/SKU
- Inventory Download Raw Data : Download raw data related to inventory

2 Can be searched by applying filters such as period, EOL, Unit Type (OMD/OMV), etc

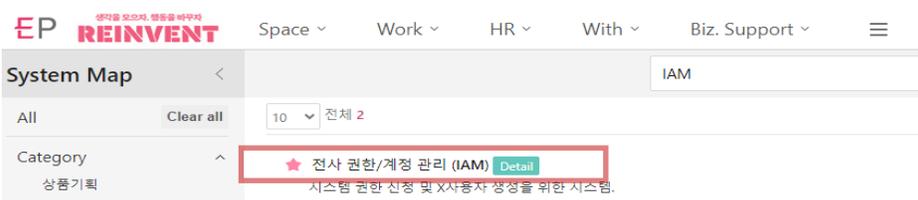
- * EOL (End of Life): Discontinued product
- * OMD: refers to the original product excluding accessories or consumables
- * OMV: refers to accessories or consumables (ex. air conditioner filter)



How to apply for D2C Dashboard Portal permission (1/2)

Path: EP Access – IAM (Enterprise Authority/Account Management) – System Authority – System Authority Request – Search D2C and click D2CD – Apply for permission

1 IAM discovery after connecting to EP



The screenshot shows the EP REINVENT System Map interface. A search bar at the top right contains the text 'IAM'. Below the search bar, a list of results is displayed. The first result is highlighted with a red box and contains the text: '★ 전사 권한/계정 관리 (IAM) Detail'. Below this text is a smaller line of text: '시스템 권한 신청 및 X사용자 장성을 위한 시스템.' The interface also shows navigation tabs like 'Space', 'Work', 'HR', 'With', and 'Biz. Support'.

2 Connect to IAM and click System Authority



The screenshot shows the IAM (Identity & Access Management) navigation menu. The 'System Authority' tab is selected and highlighted in pink. Below it, a 'System Authority Request' button is visible. Other tabs include 'External User Account' and 'My Page'.

3 Search for D2CD and click on it



The screenshot shows the 'System Authority Request' search results page. A search bar at the top contains the text 'D2CD'. Below the search bar, a table titled 'System List (Total 1)' is displayed. The table has four columns: 'No.', 'System', 'System Name', and 'Description'. The first row contains the following data:

No.	System	System Name	Description
1	D2CD	D2C(Direct to Customer) Dashboard (D2CD)	Integrated dashboard for global OBS customer behavior & sales performance monitoring

Tableau Permission Types

There are two types of permissions in D2C Dashboard Portal.

1. **Explorer:** Permission to edit Tableau dashboard screen
2. **Viewer:** Permission to download data and view dashboard

If you do not log in for more than 90 days, your privileges will be deleted and the procedure is as follows.

(Applies regardless of permission level)

- ✓ **1st notification :** If you do not log in for 1 month, you will be notified that your rights will be deleted based on a specific date (90 days of non-use)
- ✓ **2nd notification:** If you do not log in for 2 months, you will be notified that your rights will be deleted based on a specific date (90 days of non-use)
- ✓ **3rd notification:** After 90 days of non-use as previously announced, the permission will be automatically deleted and deleted. Information will be provided and information on the permission application process will be included if necessary

How to apply for D2C Dashboard Portal permission (2/2)

Path: EP Access – IAM (Enterprise Authority/Account Management) – System Authority – System Authority Request – Search D2C and click D2CD – Apply for permission

4 After setting Category and User Authority permissions, click the Add button

Authority Request(D2CD) | Home > System Authority > System Authority Request

Request Information

Guide Line: D2C Dashboard Guide

Authority Info

Category	HQ
User Authority	VIEWER

Authority List (Total 1 / 190)

<input type="checkbox"/>	Category	User Authority	User Authority Desc
<input checked="" type="checkbox"/>	HQ	VIEWER	Viewer

Add

5 Enter Request Reason and click Submit button

My Authority (Total 1 / 190)

<input checked="" type="checkbox"/>	Status	Category	User Authority	User Authority Desc
<input checked="" type="checkbox"/>	NEW	LGEKR	VIEWER	Viewer

Remove

Request

Request Reason

Approval Line

No.	Approver	Position	Department Name	E-mail
1	YoungHoon Kim	Specialist	PQ100A.Data Insight Team	younghoon.kim@lge.com
2				

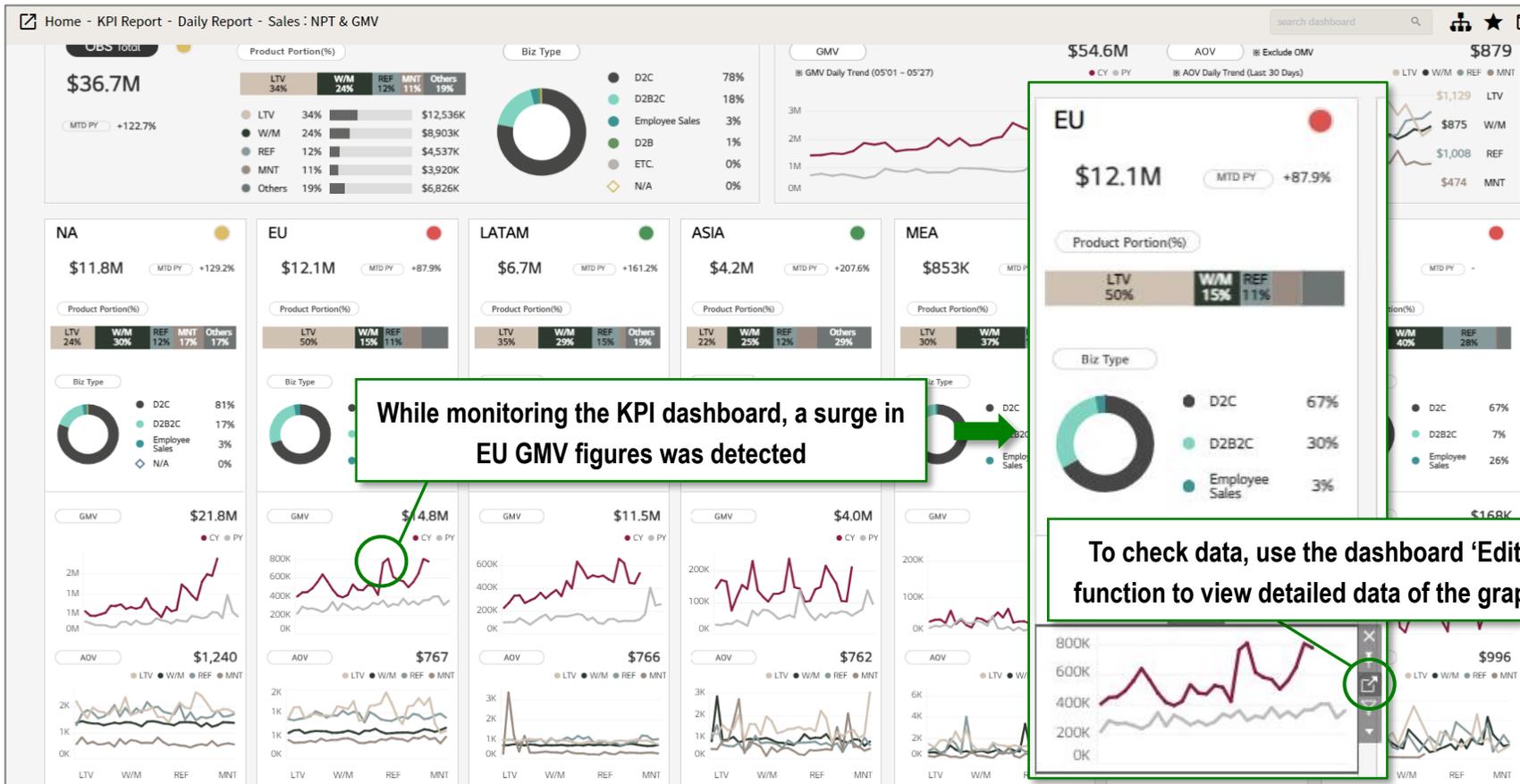
Enter detailed reason for application, including purpose for each authority
Example) We request permission to use D2C Dashboard Viewer to monitor traffic data of 00 Corporation.

Submit Cancel

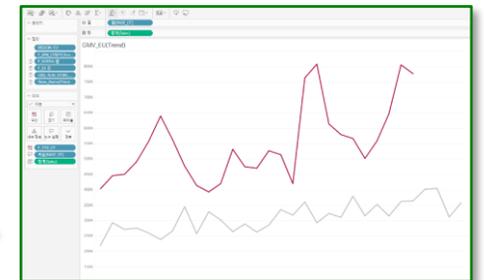
D2C Dashboard Portal – Use Case

[Use Case #1] Identify the cause of outliers discovered during dashboard monitoring (1/3)

Home > KPI Report > Daily Report > Sales: NPT & GMV



EU GMV data editing screen



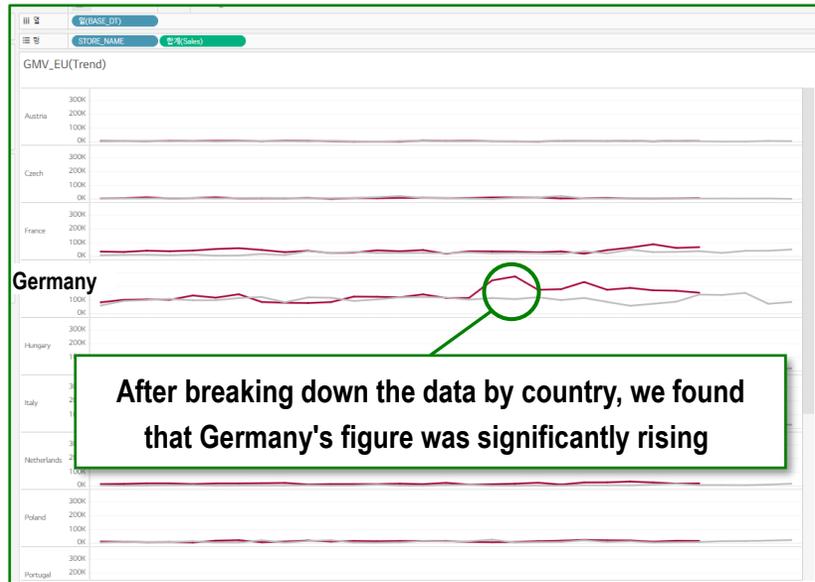
D2C Dashboard Portal – Use Case

[Use Case #1] Identify the cause of outliers discovered during dashboard monitoring (2/3)

EU GMV data editing screen



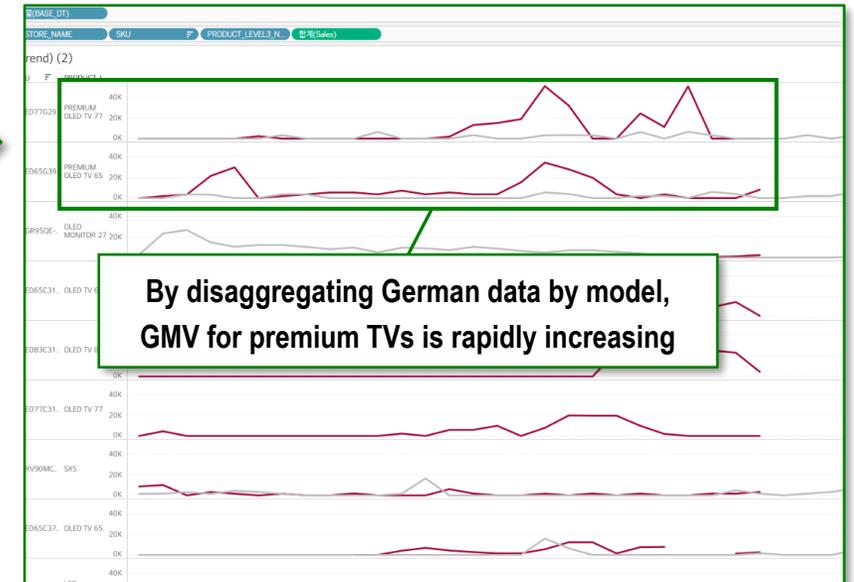
Verify the GMV trend by country



After breaking down the data by country, we found that Germany's figure was significantly rising

※ Examine detailed data through variable addition (STORE_NAME)

Verify the GMV trend by product/SKU for Germany



By disaggregating German data by model, GMV for premium TVs is rapidly increasing

※ Examine detailed data through variable addition (SKU, PRODUCT_LEVEL)

D2C Dashboard Portal – Use Case

[Use Case #1] Identify the cause of outliers discovered during dashboard monitoring (3/3)

Question

What is the reason for the rapid increase in GMV of premium TVs in Germany?

Hypothesis

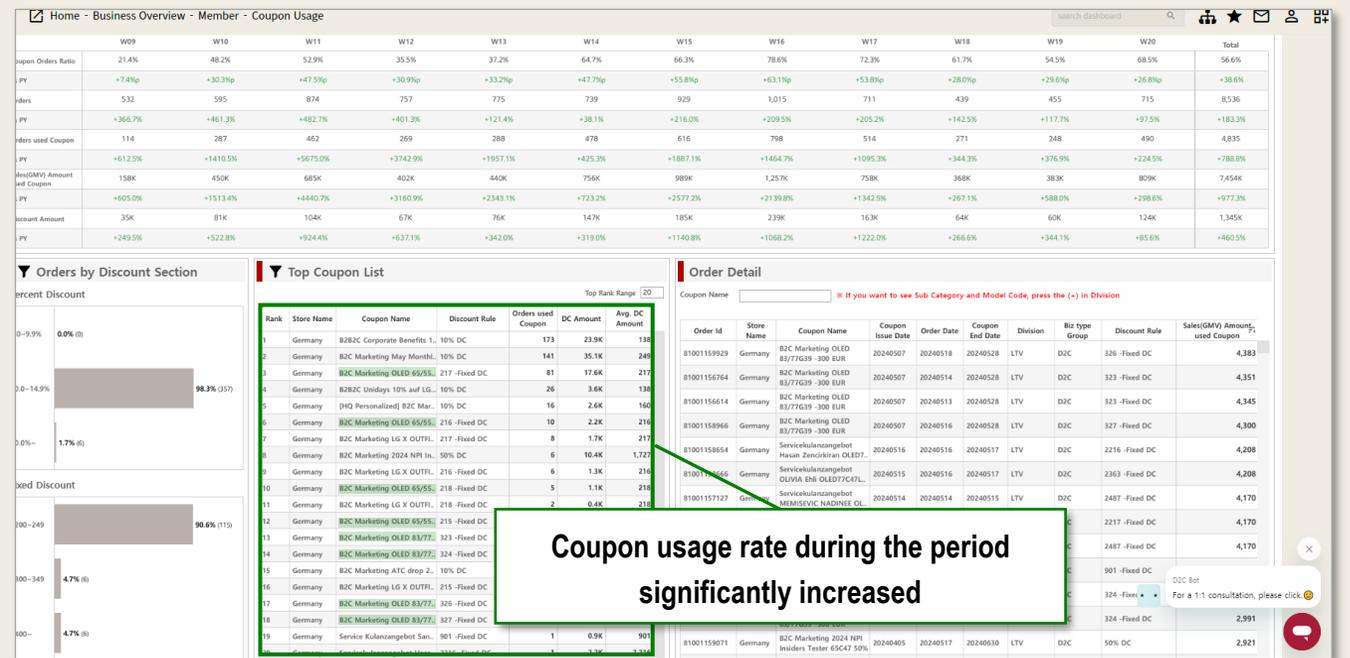
- Promotions operated in Germany have an impact on GMV increase

→ (X)Germany's promotion related to the Euro Cup took place two weeks ago(W18), this type of promotion takes effect immediately

* Premium TV GMV increase occurs in week 20

- Distribution of premium TV-related coupons affects GMV increase

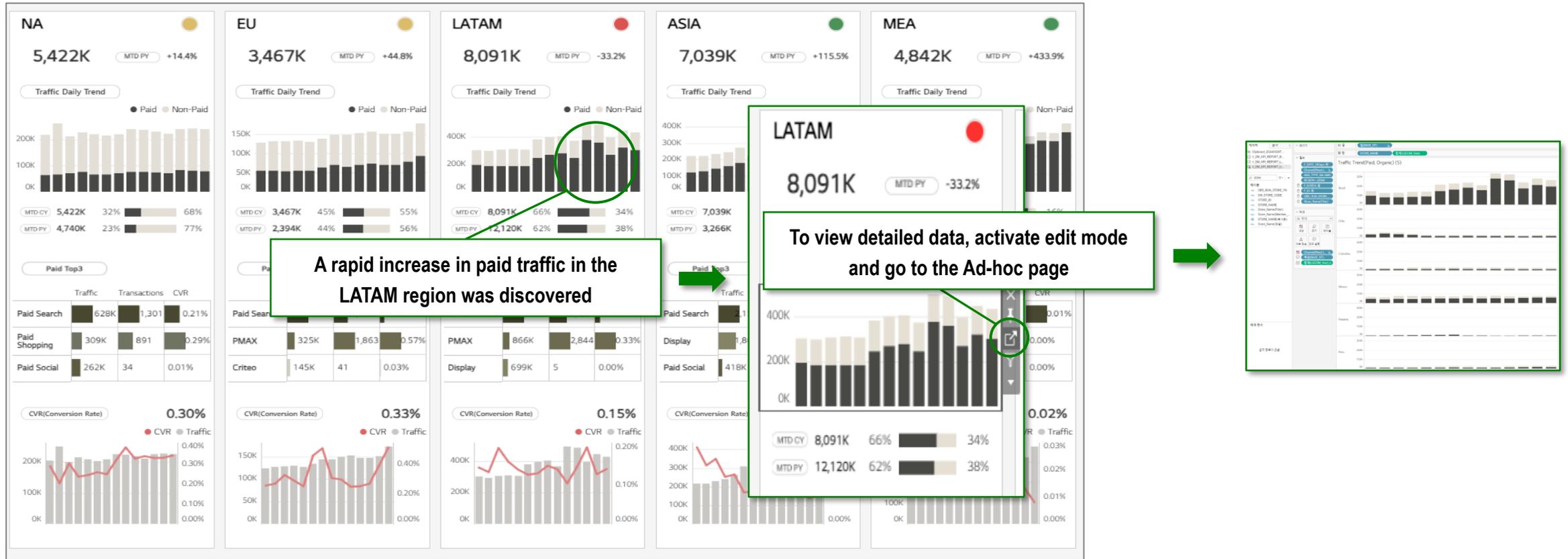
Hypothesis testing: Check the Coupon Usage dashboard



D2C Dashboard Portal – Use Case

[Use Case #2] Identifying the cause of Brazil's traffic increase (1/3)

Home > KPI Report > Daily Report > Marketing Overview



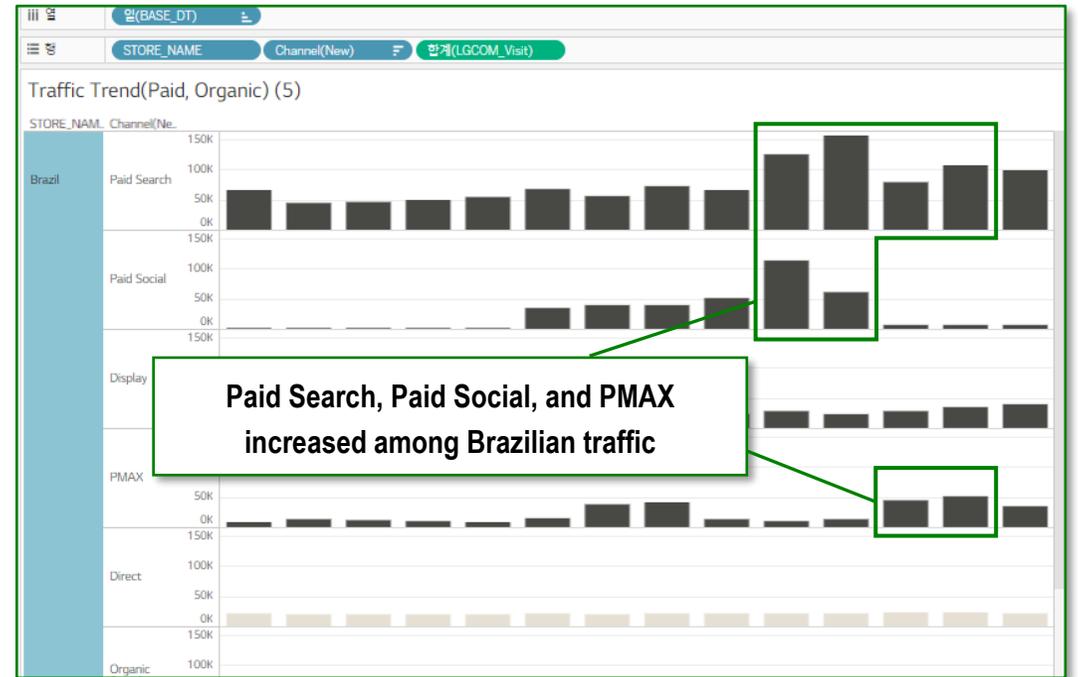
D2C Dashboard Portal – Use Case

[Use Case #2] Identifying the cause of Brazil's traffic increase (2/3)

Check traffic trends by country



Check traffic trends by channel in Brazil



※ Use Brazil as a fixed parameter and add a channel variable to check detailed data

D2C Dashboard Portal – Use Case

[Use Case #2] Identifying the cause of Brazil's traffic increase (3/3)

Analyze detailed causes by reviewing campaigns executed in each channel of the Brazilian corporation

Campaign Performance

Accessory

Traffic Channel

Select Channel to Filter ▼

Channel	PDP	ATC	Transactions	BOUNCE RATE	AVG_SESSION_DU.
Paid					
Paid_Search	68,331	1,955	455	38%	2,562 sec
PMAX	55,164	2,050	314	27%	2,521 sec
Paid_Shoppi..	51,141	640	57	46%	585 sec
Paid_Social	34,727	258	15	41%	634 sec
Display	18,204	600	111	73%	471 sec
Affiliates	12,509	1,553	354	28%	4,757 sec
Paid_Etc	0	0	0	100%	
Non Paid					
Organic_Sea..	124,509	1,859	386	26%	3,496 sec
Direct	75,887	2,476	544	64%	1,317 sec
Organic_Soci..	60,617	77	5	27%	742 sec
Criteo	22,162	163	17	60%	934 sec

Campaign

Select Campaign to Filter ▼ Search

Campaign	PDP	ATC	Transactions	BOUNCE RATE	AVG_SESSION_DU.
HQ-HA_HA_WM_BR_24_AO_Assembly_PMAX_c	27,130	1,140	195	26%	2,598 sec
HQ-HA_HA_RAC_BR_24_AO_Assembly_PMAX_c	21,951	686	83	30%	2,043 sec
BR_IT_ALL_BR_24_Q1_Media.Monks_PSE_purcha	12,041	344	50	32%	2,108 sec
BR_HA_REF_BR_24_Q1_Media.Monks_BU-OCS-R	10,876	41	1	31%	588 sec
BR_OTH_OTH_BR_24_Q1_Media.Monks_PSE_pur	8,733	654	208	12%	7,685 sec
HQ-HE_HE_TV_SP_24_AO_LGCNS_PSE_AWN_GE	8,488	24	6	63%	556 sec
BR_HA_WM_BR_24_Q1_Media.Monks_BU-OCS-	5,840	32	2	36%	396 sec
BR_HE_TV_BR_24_Q1_Media.Monks_PSE_purcha	4,892	186	30	32%	2,027 sec
BR_HA_WM_BR_24_Q1_Media.Monks_BU-OCS-	4,822	37			
HQ-HE_HE_TV_SP_24_AO_LGCNS_PSE_AWN_BR	4,658	40			
BR_ALL_ALL_BR_24_Q1_Media.Monks_OBSFC-A	3,758	47			
HQ-HA_HA_REF_BR_24_AO_Assembly_PMAX_co	3,635	160	24	17%	4,369 sec
BR_IT_ALL_BR_24_Q1_Media.Monks_PSE_purcha	2,901	40	3	34%	1,786 sec
BR_ALL_ALL_BR_24_Q1_Media.Monks_BU-OCS-l	2,889	34	3	38%	1,170 sec
HQSEM_HA_SP_Google_RAC_Generic_Phrase_PT	2,880	55	9	46%	886 sec
BR_HA_REF_BR_24_Q1_Media.Monks_BU-OCS-R	2,155	16	3	29%	1,079 sec
BR_OTH_OTH_BR_24_Q1_ALM_cinebeam-mar-q	2,005	2	0	49%	140 sec

Model

Select Model to Filter ▼ Search Division

Model	PDP	ATC	Transactions	Orders	BOUNCE RATE	AVG_SESSION_DU.
S3-Q12JAQAL	6,999	98	10	0	26%	1,157 sec
75QNED80SRA	6,358	0	0	0	55%	163 sec
S3-Q09AA31A	5,643	299	47	0	34%	1,418 sec
34GP63A-B	5,159	168	36	0	37%	1,024 sec
WD14WGSP6	4,125	44	4	0	29%	880 sec
86QNED80SRA	3,740	24	5	0	50%	381 sec
GC-9569NQLC	3,714	23	4	0	31%	641 sec
GC-X257CSHS	3,415	32	13	0	26%	887 sec
				0	25%	1,088 sec
				0	39%	490 sec
				0	28%	1,353 sec
				0	35%	977 sec
CV3011WG4A	3,101	120	20	0	28%	1,077 sec
CV3011WG4	3,037	156	28	0	27%	1,558 sec
WD14EGS62	2,914	31	3	0	39%	574 sec
S3-Q18KLQAL	2,546	3	2	0	29%	1,382 sec
FV5013WC4	2,538	73	13	0	30%	901 sec
CV5011TS4	2,421	102	10	0	30%	1,485 sec

Click Paid_Search, PMAX, or Paid_Social to see detailed campaigns on the dashboard

Check campaigns executed in filtered channels and models most affected by them

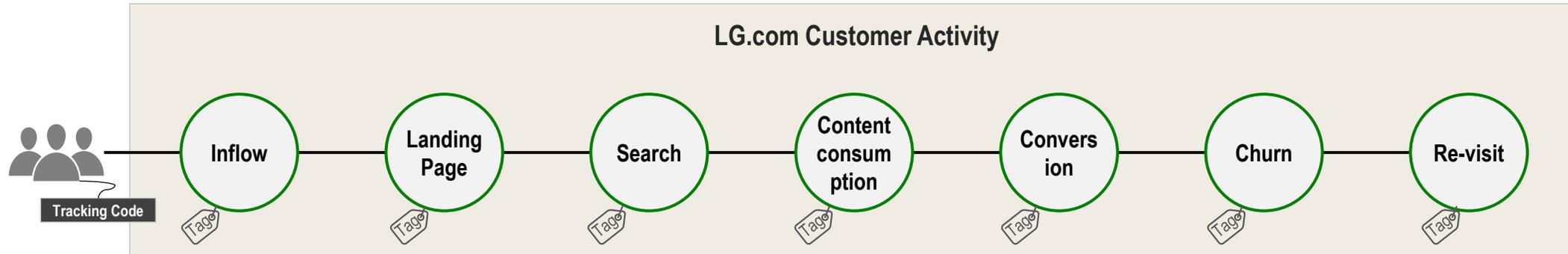
※ For more detailed analysis, such as landing page analysis, you need to check the GA console

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II. Detailed usage

1. D2C Dashboard Portal
2. **Google Analytics 4**
3. Sprinklr
4. Google BigQuery
5. Airflow
6. Google VertexAI
7. D2C Data Help Center

Google Analytics4 (GA4) collects customer behavior data within dotcom and analyzes it comprehensively to support deriving customer-centered insights



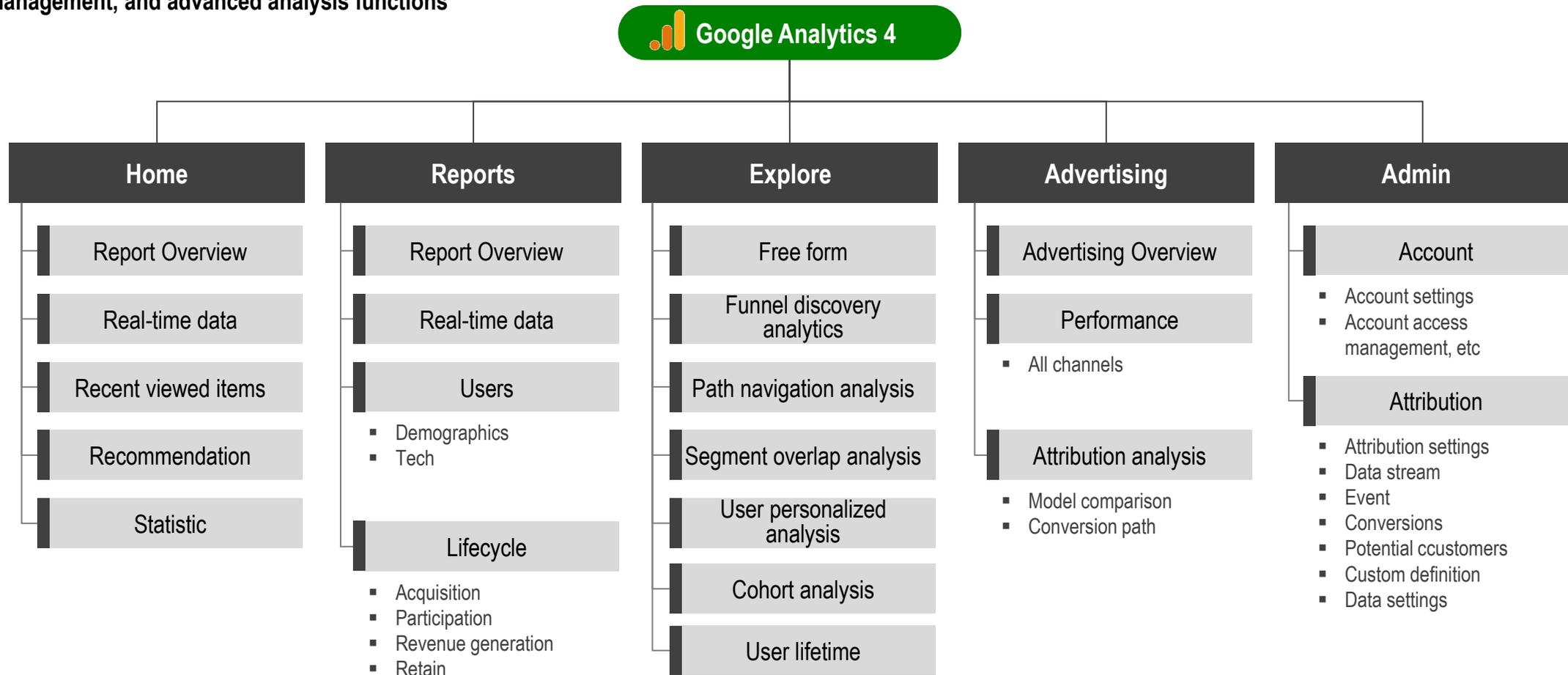
Collect data on users coming to LG.com by tagging them with tracking codes and key events.

Inflow	Landing Page	Search	Content Consumption	Conversion	Bounce	Revisit
<ul style="list-style-type: none"> Source/medium Device Used browser Region 	<ul style="list-style-type: none"> Landing page Average Session Time Engagement Rate Revious page 	<ul style="list-style-type: none"> Page path Search keyword GNB clicks Navigation type 	<ul style="list-style-type: none"> Participation time Total events Views 	<ul style="list-style-type: none"> First time buyer rate Add to cart Checkouts Purchase 	<ul style="list-style-type: none"> Number of participating sessions Bounce Rate 	<ul style="list-style-type: none"> Retuning users Repeat Purchasers

Collect data(example)

Google Analytics 4 Menu Structure

GA4's menu consists of Home, Reports, Navigation, Advertising, and Management, each providing data summary, detailed analysis, settings, account management, and advanced analysis functions



The screenshot shows the Google Analytics 4 Home dashboard for 'LGE Electronics' and 'LGE UK'. The interface includes a navigation menu on the left with 'Home', 'Reports', 'Explore', and 'Advertising'. The main content area is divided into three sections:

- Section 1 (Overview card):** Displays key metrics: Active users (131K, -8.4%), Key events (212K, -22.2%), New users (117K, -4.5%), and Event count (2.1M, -29.8%). It includes a line chart for 'Last 7 days' and 'Preceding period' and a real-time card for 'ACTIVE USERS IN LAST 30 MINUTES' (559) with a bar chart and a table of active users by country.
- Section 2 (Recently accessed):** Shows four cards for 'Attribution paths', 'Advertising snapshot', 'Reports snapshot', and 'Untitled exploration', all accessed 'today'.
- Section 3 (Suggested for you):** Features three cards: 'Views by Page title and screen', 'Sessions by Session primary channel', and 'Active users by Country ID'. Each card contains a table of data and a world map.

- 1 The overview card displays key metrics related to your website, including users, average session time, and conversions, while the real-time card on the right provides data on user activity over the last 30 minutes using data from real-time reports
- 2 The Recently Viewed section displays the Analytics menus/reports the user has recently visited
- 3 The Featured section displays cards that users frequently view, while their sessions display unusual changes, latest trends, and other statistics related to the site

Menu composition varies depending on importance for each corporation

Business Overview	Dashboard report summarizing LG.com's key indicators
Real-time	A report that allows you to monitor the activities of customers within LG.com in real time
Lifecycle	
Acquisition	Report showing where users come to your website, including sources and mediums
Engagement	Report showing user interactions (events such as views, clicks, etc.) within the website
Monetization	Reports showing revenue generated from products, ads, and subscriptions on your website
Retention	Reports showing how often and for how long users return and the additional revenue value generated
Search Console	Report showing where users come to your website, including sources and mediums
User	
User attributes	Reports showing user traffic by demographics, including country, region, age, and gender
Tech	Report showing the technical environment used by users, such as access devices, browsers, and operating systems

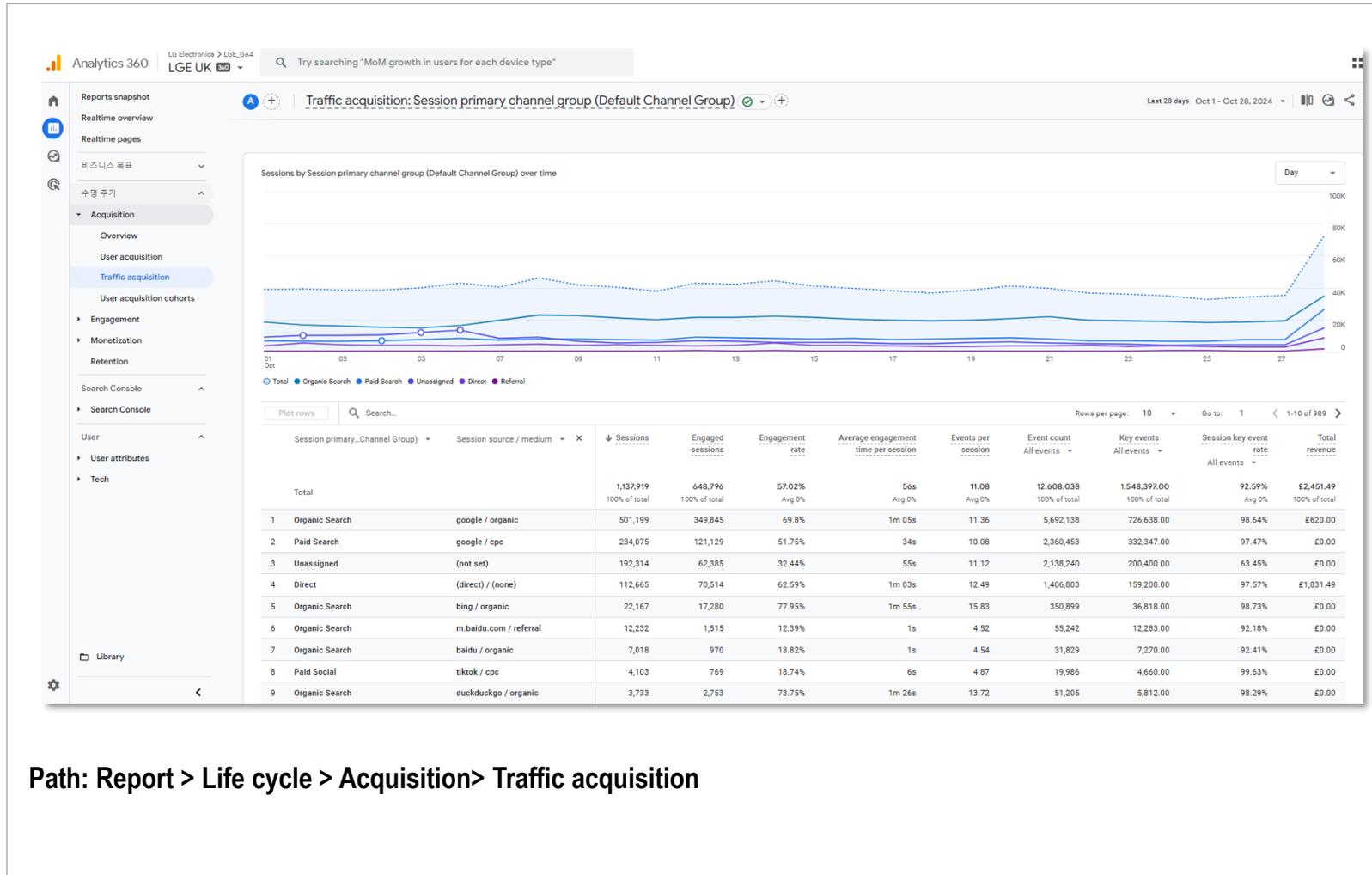
Details: <https://support.google.com/analytics/answer/9212670?hl=ko>

- 1 The reports section provides basic reports regarding users and user behavior
- 2 Among these, the business overview, which can be said to be the main section, provides data/reports to monitor KPIs
- 3 Users include demographic and technical data, while Lifecycle includes data related to acquisition, engagement, monetization, and retention

GA provides two types of reports

- Overview report: A report consisting of summary cards showing data on a specific topic
- Detailed reports: Reports that provide in-depth information about your area of interest

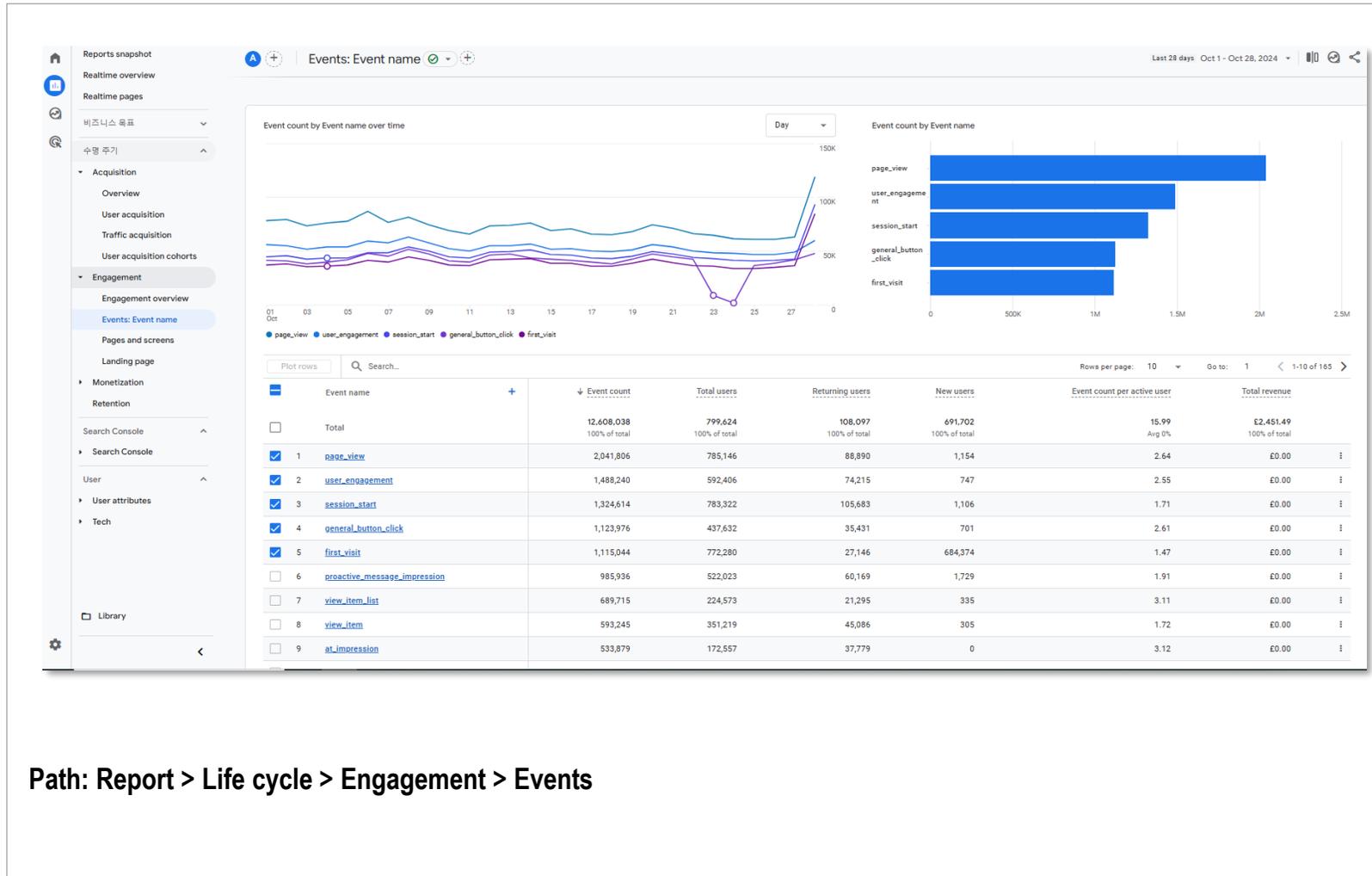
[Example] report: Customer Funnel (Marketing Channels)



- See information about the path customers took to get to our site (direct Google search, YouTube, banner ads, etc.)
- GA channels are groupings of customer funnels that you can use to track and compare your digital marketing efforts.
- Channels can use their own defined groups in GA, or new groups are available for LGE digital marketing channels.

Path: Report > Life cycle > Acquisition > Traffic acquisition

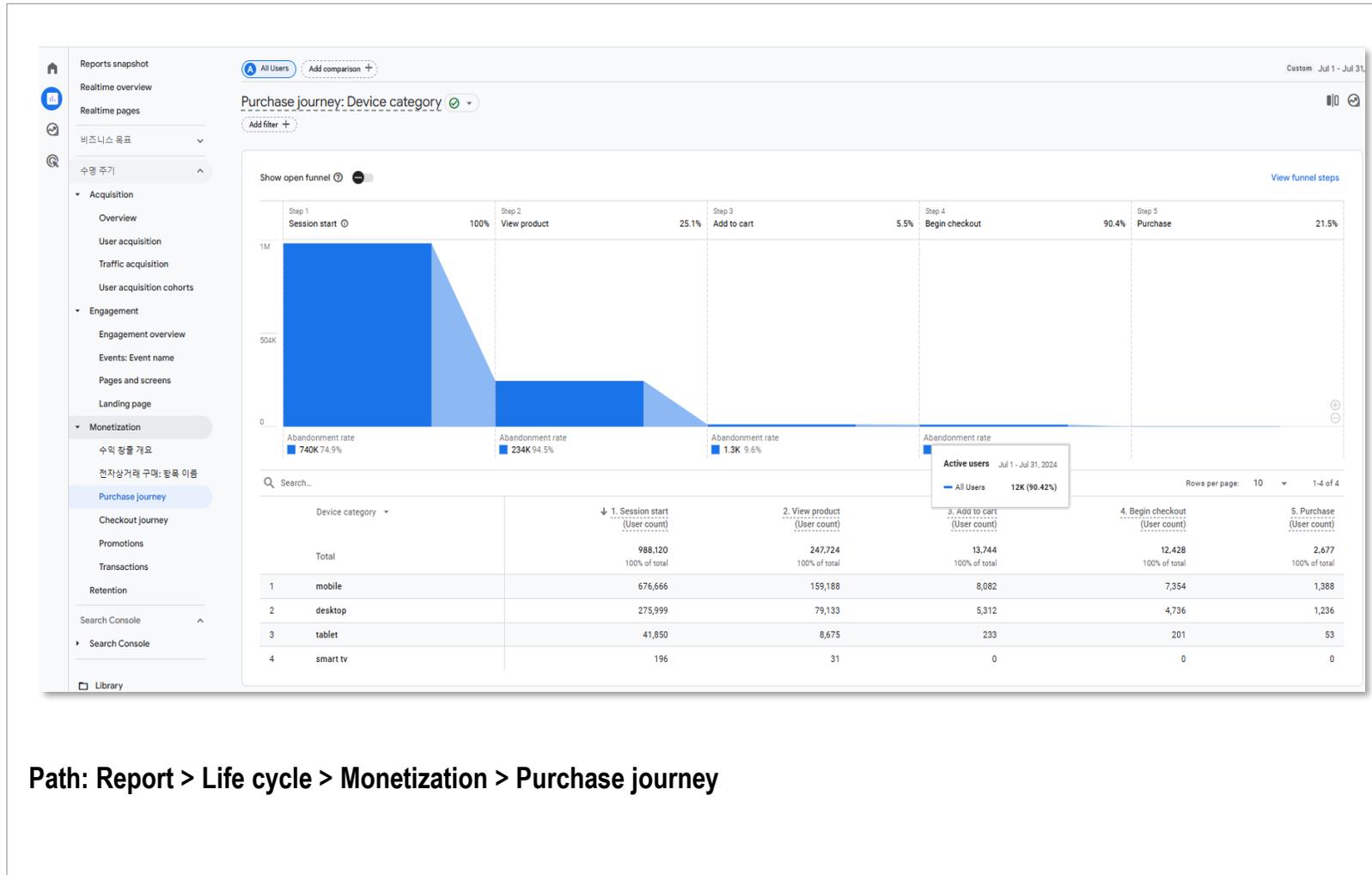
[Example] report: Customer behavior settings



Path: Report > Life cycle > Engagement > Events

- View information about every action a customer takes on your site, including clicks, product purchase-related behaviors, internal searches, and more.
- Designing and tagging event data, including metrics, to see how customers are behaving is necessary
- View customer behavior, including how many clicks were made on banner images on your homepage, which product category PLP pages were visited and clicked on, and how many conversions were made to purchase.

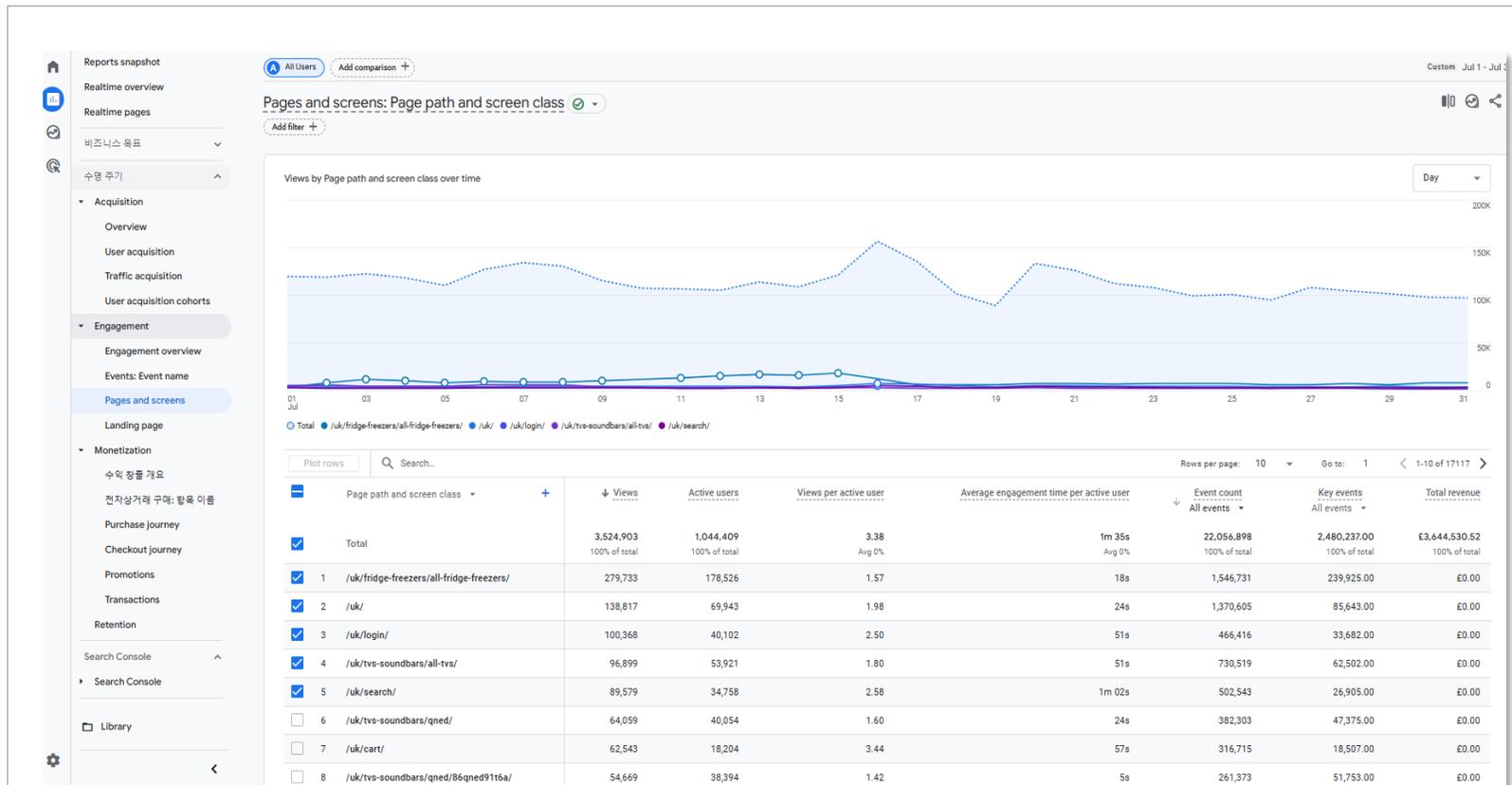
[Example] report: Customer Paths



Path: Report > Life cycle > Monetization > Purchase journey

- View information about the path a customer takes from site visit to purchase
- Key monitoring information includes:
 1. How customers traveled through the entire path to purchase (funnel)
 2. Customer drop-off points
- Define customer paths for LG.com in GA to view data and review where to reduce bounce rates and create experiences that convert

[Example] report: Page-by-page analysis



Path: Report > Life cycle > Engagement > Pages and screens

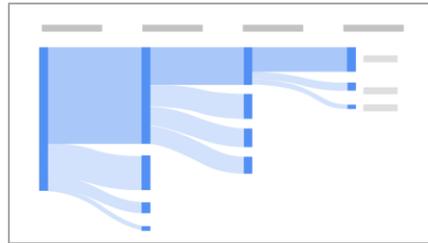
- Analyze customers' on-page behavior with information like page visits, time on page, number of on-page events, etc.
- Provide metrics to evaluate a page's effectiveness and likelihood of converting to the next page
- This means understanding customer reactions and using them to improve and optimize internal content.

Possible techniques for exploration reports



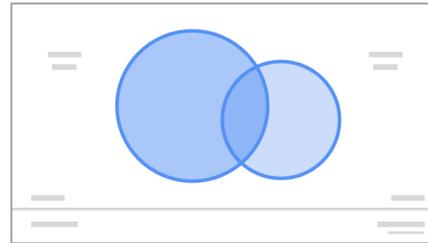
Analyzing funnel navigation

Analyze/Categorize/Segment with multi-stage purchased funnels



Analyzing pathfinding

Understanding the user journey on LGE.com with flowcharts



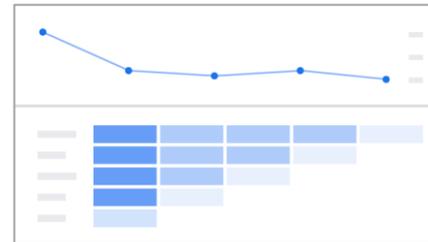
Analyzing segment duplicates

Analyze user behavior through user segment intersections



User personalization analytics

Analytics for individual user activity



Exploratory cohort analysis

Understand what you can learn from the behavior of cohort over time



User lifetime

Analyze your users' entire lifetime and understand their behavior

The Explore section is a kind of custom report that provides more in-depth and useful information about customer behavior beyond the basic reports.

[Key Features]

- **Combine data freely:** Create customized reports by freely combining different dimensions and metrics
- **Multiple visualization options:** Support for multiple types of visualizations, including tables, bar graphs, pie charts, and more
- **Segmentation:** Enable analysis focused on specific user groups or behaviors
- **Advanced filtering:** Apply complex conditions to filter data
- **Comparative analysis:** Support for comparative analysis across time periods and segments
- **Save and share:** Save and share reports you create with your team
- **Real-time data reflection:** Deliver analysis that reflects the latest data in real time

	Date	Sessions
Totals		465,560
1	20231001	37,679
2	20231002	40,432
3	20231003	38,342
4	20231004	41,189
5	20231005	23,014
6	20231006	21,654
7	20231007	35,746
8	20231008	35,652
9	20231009	37,832
10	20231010	31,365

1 Drag the desired **Dimensions** (Pages, Countries, Sources, etc.) and **Metrics** (Users, Sessions, etc.) to add to the report

※Information about the Dimensions and Metrics available in GA4 is current and organized on the GA4 Wiki.

URL: <https://lge-gmc.atlassian.net/wiki/spaces/GOP1/pages/16646740/GA+Tagging+files>

2 Choose the type of visualization you want: table, bar graph, pie chart, etc.

3 Set the time period you want to analyze

The screenshot shows the Google Analytics 4 Explore interface. At the top, there's a 'Settings' panel on the left and a report table in the center. The report table has columns for 'Event name', 'search_page_category', 'search_location', 'click_content', and 'Event count'. A red circle '1' is placed over a right-click action on row 10, which has the criteria 'Price : Lowest to Highest'. Below the table, a segment creation dialog is open, titled 'Search sort Price Lowest to Highst'. The 'Include users when' section has a red circle '2' over the criteria 'click_content matches regex Price : Lowest to Highest'. A red circle '3' is over the 'Save' button in the top right of the dialog. A red arrow points from the right-click action to the segment dialog.

Event name	search_page_category	search_location	click_content	Event count
Totals				104,8
1 search_plp_sort	plp_search	sort	Best Match	11,7
2 search_plp_sort	plp_search	sort	Best match	
3 search_plp_sort	plp_search	sort	Consumer Rating	2,6
4 search_plp_sort	plp_search	sort	Consumer rating	
5 search_plp_sort	plp_search	sort	LG Recommended	8
6 search_plp_sort	plp_search	sort	Most Popular	3,0
7 search_plp_sort	plp_search	sort	Most popular	
8 search_plp_sort	plp_search	sort	Newest	5,6
9 search_plp_sort	plp_search	sort	Price : Highest to Lowest	14,207
10 search_plp_sort	plp_search	sort	Price : Lowest to Highest	65,026
11 search_plp_sort	plp_search	sort	Price : Lowest to Highest	3
12 search_plp_sort	plp_search	sort	Price : highest to lowest	499
13 search_plp_sort	plp_search	sort	Price : lowest to highest	920

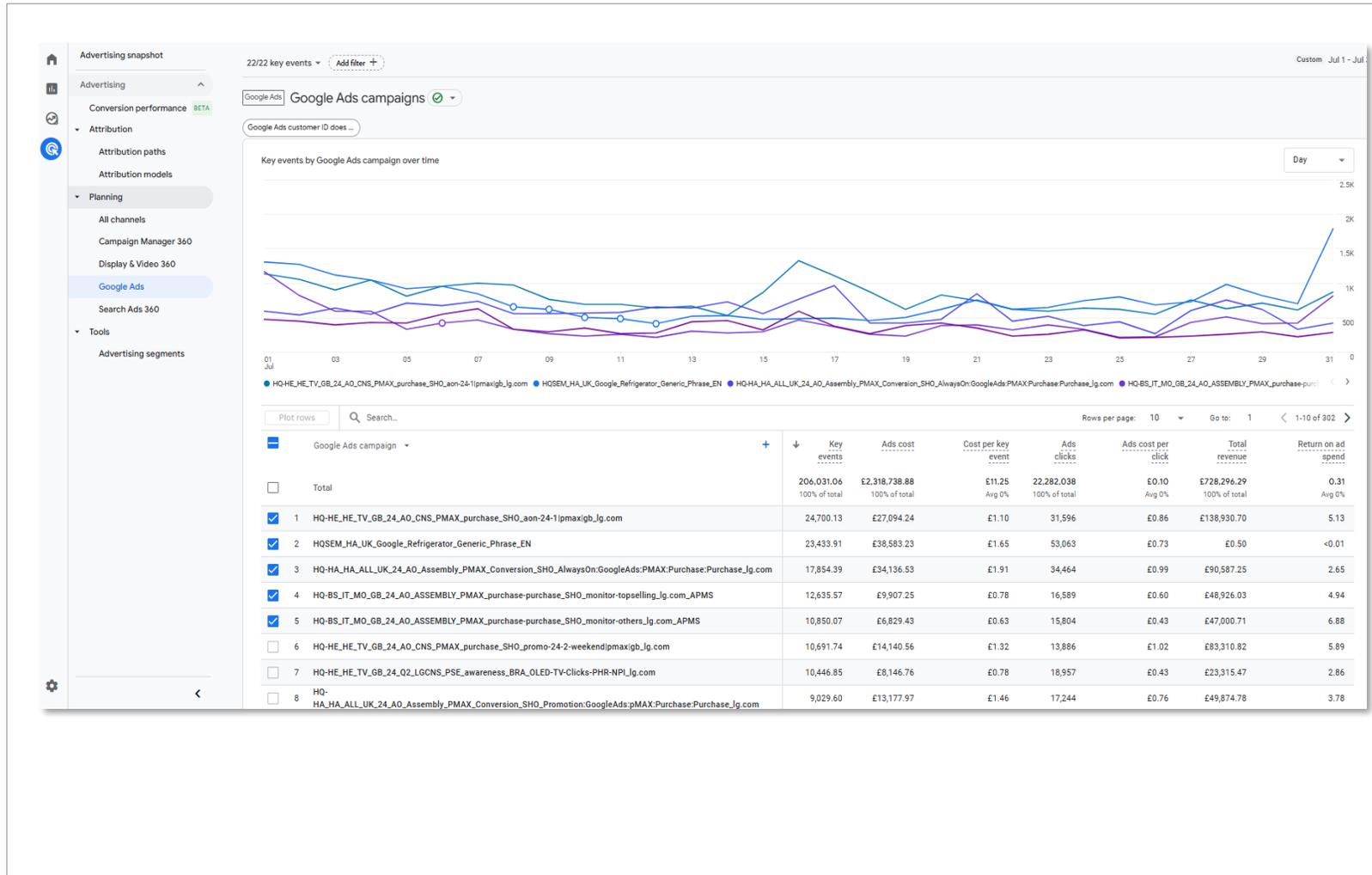
Segment	All Users	Search sort Price Lowest to Highst
Totals	7,237	1,204
1 H&A	1,597	334
2 HE	4,210	673
3 IT	1,430	197

1 In a sample report, you notice that there is a lot of behavior that wants to list products in order of lowest cost.

2 Decide on criteria to group by and create segments

* Right-click on ① to automatically set segment criteria

3 Gain conversion insights by segmenting how people listed in order of price would have influenced their purchase, and similarly, segment the behavior of users who visited through a specific campaign.



Advertising section provides data to help analyze performance and attribution by marketing campaign/channel (includes ad campaign data + all channel data)

← Connect Google Marketing Platform's Ads Product to provide some of your ad data in GA4 reports

Reports that can be used to analyze the effectiveness of your Remarketing ads and help you design better ways to spend your ad budget.

<GA4 Ads Conversion>

Google Tag Manager → Google Analytics 4 → Google Ads & Other Google Ads service

ad_user_data
ad_personalization

Google Ads links

When you set up Google Ads links, it allows data access between Google Ads and your property. You can have up to 400 active unique links at a time.

Unique links ⓘ

Account Name	Account ID	Account type	Exporting data ⓘ	# of links ⓘ
CNX_GA4 Test	979-037-2491	Account	Yes	1

Items per page: 5 1 - 1 of 1

QA_Subproperty links ⓘ

Account Name	Account ID	Account type	Personalized Advertising	Date linked	Linked by
CNX_GA4 Test	979-037-2491	Account	Enabled	Mar 26, 2024	dongju.jung@concentrix.com

Items per page: 5 1 - 1 of 1

- Ads Product link required for ad optimization and remarketing based on events collected by GA4
- Import data into Ads Product via Audience, Key event settings

The screenshot shows the Google Analytics 4 Audience Trigger configuration interface. The main configuration area is titled "Audience Trigger" and includes the following elements:

- Include users when:** A section with a dropdown menu set to "view_item" and a filter "item_category contains HE".
- Event Name *:** A text input field containing "audience_CNX_HE_view_item".
- Log an additional event when audience membership refreshes:** An unchecked checkbox.
- Buttons:** "Cancel" and "Save" buttons at the bottom right.

On the right side, the "Additional audience settings" panel is visible, showing "MEMBERSHIP DURATION" set to 30 days. Below this, the "AUDIENCE TRIGGER" section is highlighted with a red box, showing the event name "audience_CNX_HE_vie...". A red arrow points from this box to the "Event Name" input field in the main configuration area.

At the bottom right, a "Summary" panel displays the following statistics:

- USERS IN THIS AUDIENCE:** 6.4K (23.1% of all users)
- TOTAL SESSIONS:** 7.1K (24% of all sessions)

A pie chart shows the distribution of users between "INCLUDE" (6.4K) and "EXCLUDE" (-).

- Create audiences to optimize your Ads ads for better ad targeting.
 - Create an additional Audience trigger event to convert ads to future audiences.
- ※ For key events and Audience trigger events, we are restricting direct creation, and if necessary, request creation through the D2C help center.

[GA4]

[Google Ads]

Segment name	Type	Membership status
Not in-use		
<input type="checkbox"/> Purchasers of QA_Subproperty Users who have made a purchase	App + Web visitors Automatically created	Open
<input type="checkbox"/> page_view (more than 30seconds)	App + Web visitors	Open
<input type="checkbox"/> CNX_HE_view_item	App + Web visitors	Open
<input type="checkbox"/> All visitors (Google Analytics) System defined People who visited pages that contain your remarketing tags	Website visitors Automatically created	Closed
<input type="checkbox"/> All visitors (Google Ads) People who visited pages that contain your remarketing tags	Website visitors Rule-based Automatically created	Closed
<input type="checkbox"/> All Users of QA_Subproperty All users	App + Web visitors Automatically created	Open
<input type="checkbox"/> All converters People who converted on your site. Based on your conversion tracking tag	Website visitors Rule-based Automatically created	Closed
<input type="checkbox"/> AdWords optimized list Combined audience based on available data sources	Custom combination segment Automatically created	Closed

- Create audiences to optimize your Ads for better ad targeting.
- Create an additional Audience trigger event to convert ads to future audiences.

※ For key events and Audience trigger events, we are restricting direct creation, and if necessary, request creation through the D2C help center.

[Audience Event]

Analytics 360 QA_Subproperty

Existing events

Event name	Count	% change	Users	% change	Mark as key event
add_payment_info	259	-	76	-	
add_shipping_info	644	-	129	-	
add_to_cart	2,754	-	1,674	-	
add_to_wishlist	7	-	6	-	
at_impression	7,315	-	1,192	-	
at_scroll	208	-	118	-	
audience_CNX_HE_view_item	483	-	483	-	
audience_pageview_20sec	6,405	-	6,345	-	
banner_auto_click	1,228	-	121	-	
banner_img_click	190	-	69	-	
begin_checkout	2,549	-	1,973	-	
breakroom_click	120	-	74	-	
cart_checkout_click	266	-	80	-	

[Key Events]

Analytics 360 QA_Subproperty

Conversion Events

Conversion name	Count	(% change)	Value	(% change)	Mark as key event
add_to_cart	1,324	-	-	-	
audience_CNX_HE_view_item	0	0%	0	0%	
audience_pageview_20sec	4,077	-	-	-	
purchase	211	-	37,597,042.92	-	

- Create audiences to optimize your Ads ads for better ad targeting.
- Create an additional Audience trigger event to convert ads to future audiences.
- Enable Key event for already collected events to be used for behavioral report purposes in GA4.

✂ For key events and Audience trigger events, we are restricting direct creation, and if necessary, request creation through the D2C help center.

Select the conversion actions to import from a Google Analytics 4 property

You've already imported 4 events. [Learn more](#)

You have 3 removed Google Analytics (GA4) events in your account. To view them in the conversion actions table, update the Status filter to show all conversion actions, not just those that are enabled.

<input type="checkbox"/> Analytics event ↑	Property name	Property ID	Date created	Conversion action
<input type="checkbox"/> audience_CNX_HE_view_item	QA_Subproperty	433447824	Mar 27, 2024	QA_Subproperty (web) audience_CNX_HE_view_item

1 - 1 of 1

Import and continue Cancel

Event

Events are determined by a customer's tagging implementation and their event schema. Customers can rely on automatically collected events or choose to grow their schema to include other more customized events.

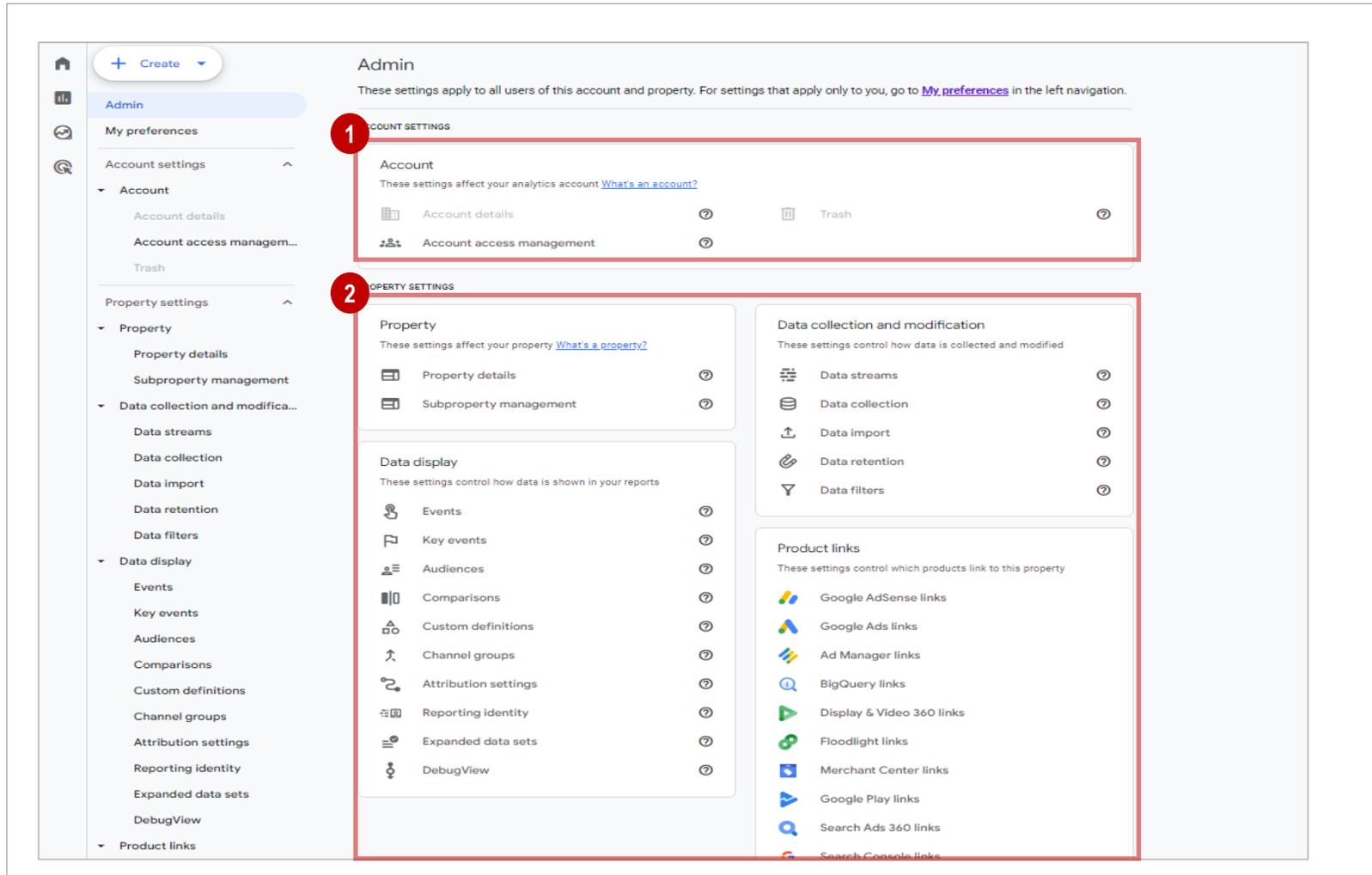
Key Event

Any event sent to GA4 will be eligible to be marked as a Key Event in the GA4 UI. This process will look the same as the legacy conversion creation process. Key Events will have the same limits as the legacy conversions concept.

Conversion

Conversions will be created in the Google Ads UI from Key Events. The conversion settings selected on the Ads side will dictate bid optimization and conversion reporting in both Google Ads and GA4. Conversions have no limit alone, but are subject to the Key Events limit.

- Create audiences to optimize your Ads ads for better ad targeting.
- Create an additional Audience trigger event to convert ads to future audiences.
- Enable Key event for already collected events to be used for behavioral report purposes in GA4.
- In Ads, import key events and use them for bid optimization.



1 Manage account access, view account changes, and more

2 Configure various features in the data stream, including configuring tagging settings / Configure data collection, storage, and filters, including Google Signal data / Integrate with major Google products such as Google Ads, BigQuery, Search Console, etc.

To support the use of GA4, LGE maintains a GA4 Wiki that organizes GA4 data and user guides, and updates can be found on that wiki.

GA4 Wiki Highlights



<https://lge-gmc.atlassian.net/wiki/spaces/LGEB/pages/180224007/0.+Introduction+of+the+GA+Wiki>

GA Event, Custom Dimension, Custom Metric Information

- Dimension / Metric Concepts Explained and List
- Event Concepts and Usage List of Events

UTM Utilization Guide

- Concepts about UTM
- Configuring UTM
- Campaign Name / Source / Medium Name Rules

GA Training Resources

- GA4 Internal Employee Training Videos
- GA4 Official Google Training Materials
- GA4 Event Guide, 3rd Party Tagging Guide

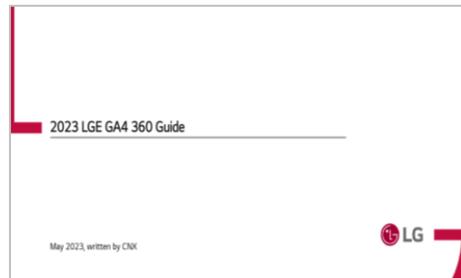
Google-related solutions contact information

- **Contact information for the following Google-related solutions**
 - GA Console / Bigquery / CGP / GTM / UTM / GMP / Google Search Console / Optimize 360 / IDEA Dashboard / DV360 / Google shopping, etc.

The GA4 wiki is accessible from within the Confluence environment. If you are unable to access it, please request permission using the path below. Access EP > Work > Request Map > Jira/Confluence access request > Request using the form provided 'Space name: LGE Board'

The team has updated the information on GA Tagging for employees, and you can find more information on this page.

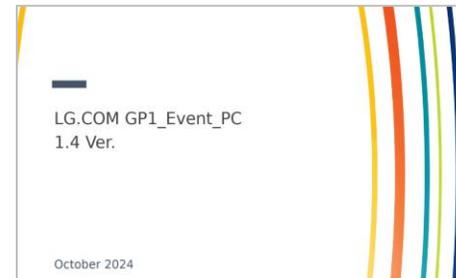
GA Tagging Guide contents



GA360 Operations guide



GA4 Ecommerce guide



GA4 event guide / Screen Blueprints(PDF) - GP1



GA4 event guide / Screen Blueprints(PDF) - 5.0

Event Name	Event Category	Event Action	Event Label	Event Value	Event Type	Event Priority	Event Status	Event Date	Event Count
GA4 C - search_gp1	Search	Search			Event	High	Active	2023.06.01	1
GA4 C - search_gp1	Search	Search			Event	High	Active	2023.06.01	1
GA4 C - search_gp1	Search	Search			Event	High	Active	2023.06.01	1
GA4 C - search_gp1	Search	Search			Event	High	Active	2023.06.01	1
GA4 C - search_gp1	Search	Search			Event	High	Active	2023.06.01	1

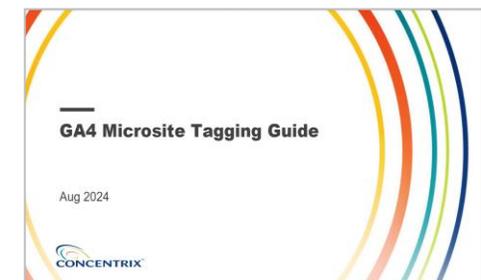
GA4 Event & Custom dimension blueprints(Excel) - GP1



GA4 Event & Custom dimension blueprints (Excel) - 5.0

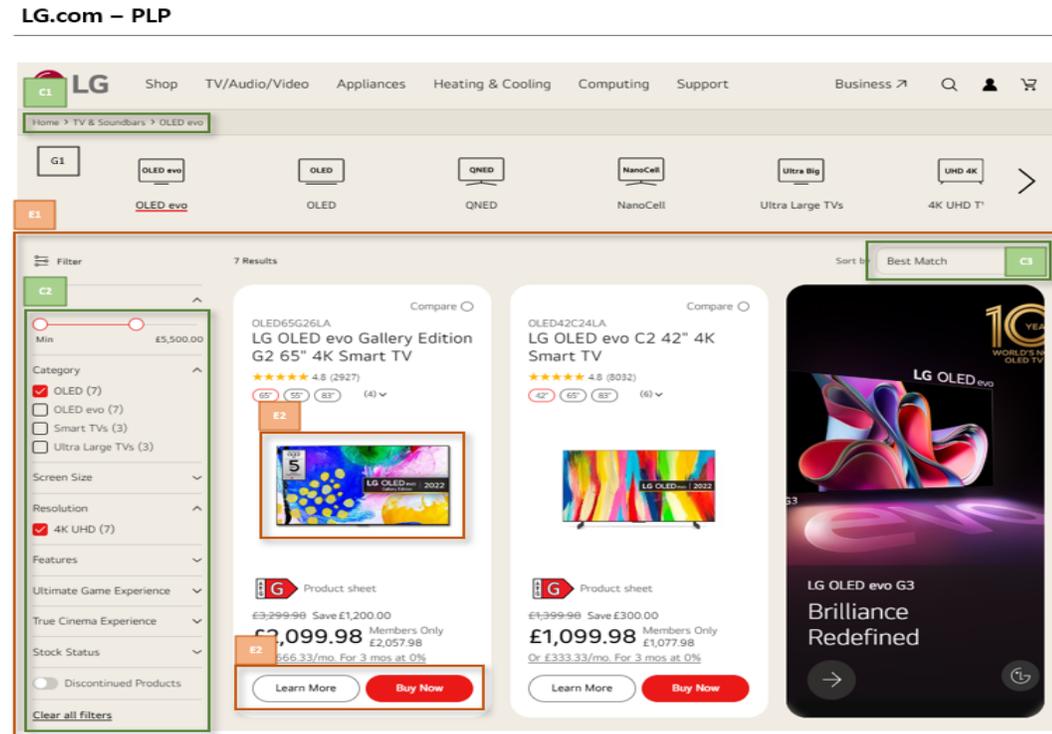
Event Name	Event Category	Event Action	Event Label	Event Value	Event Type	Event Priority	Event Status	Event Date	Event Count
GA4 C - search_gp1	Search	Search			Event	High	Active	2023.06.01	1
GA4 C - search_gp1	Search	Search			Event	High	Active	2023.06.01	1
GA4 C - search_gp1	Search	Search			Event	High	Active	2023.06.01	1
GA4 C - search_gp1	Search	Search			Event	High	Active	2023.06.01	1
GA4 C - search_gp1	Search	Search			Event	High	Active	2023.06.01	1

GA4 Variables list



GA4 Microsite Tagging guide

* The actual file can be found at this URL
<https://lge-gmc.atlassian.net/wiki/spaces/GOP1/pages/16646740/GA+Tagging+files>



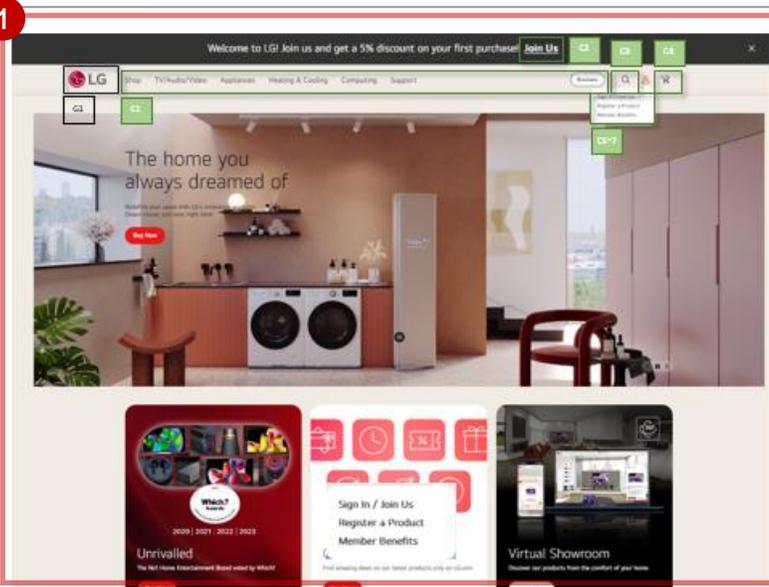
#	Event Type	Event Category(CD)	Event Name
E1	Ecommerce Event	ecommerce	view_item_list
E2	Ecommerce Event	ecommerce	select_item
C1	Custom Named Event	click_gnb_fnb	breadcrumb_click
C2	Custom Named Event	search	search_plp_filter
C3	Custom Named Event	search	search_plp_sort

1

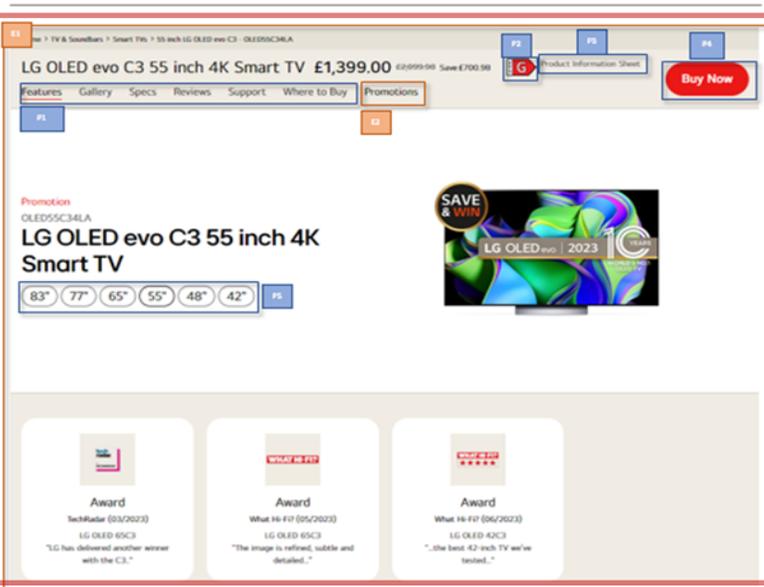
1 In the Events guide, see the name of the event you want to explore.

GA4 sends all user interactions to their respective events

LG.com – Home



LG.com – PDP



#	Event Type	Event Category(CD)	Event Name
G1	General Click Event	click	general_link_click
C1	Custom Named Event	click_gnb_fnb	gnb_menu_link_click
C2	Custom Named Event	mylg	top_notification_click
C3	Custom Named Event	search	gnb_search_open
C4	Custom Named Event	click_gnb_fnb	gnb_move_to_cart
C5	Custom Named Event	signinup	move_to_signin
C6	Custom Named Event	product_support	move_to_register_product
C7	Custom Named Event	mylg	move_to_members_benefit

#	Event Type	Event Category(CD)	Event Name
E1	Ecommerce Event	Ecommerce	view_item
E2	Ecommerce Event	Ecommerce	view_promotion
P1	Product Event	product_view	product_{[Tab type]}_tab_click
P2	Product Event	product_download	product_download_energy_label
P3	Product Event	product_download	product_download_sheet
P4	Product Event	product_buy	product_buy_now
P5	Product Event	product_view	product_switch_sku

1 Shows the location of events tagged on LG.com, color-coded and numbered by event type for easy event-specific attribution

2 Provide the Event Type, Event Category, and Event Name information for the event shown above.

[Use] The Events Guide to understand what events are happening on LG.com and freely analyze them on an event-by-event basis in GA4 Explore.

You can check the Event List and CD List

LG.COM_GP1 - Event List

Event Guide PDF Page No.	dataLayer Y/N	Event Type Flag	Event Category	Event Name	Event Description	GTM Tag Name	Common Event Parameters	Event Parameters / User Properties
-	-	G	general event	page_view	Occurs when a certain page is viewed	[GA4] All Pageview	[Configuration] full_url full_url_for_landing_page referrer_with_query locale_code host_type site_type page_purpose bu	-
3p, 7p, 65p	-	G	general event	general_link_click	When a link is clicked except general event fires	G - general_link_click	gclid metric_navigation_redirect_crt	click_content click_text click_element
7p, 66p	-	G	general event	general_button_click	When a button is clicked except general event fires	G - general_button_click	login_status cookie_consent_list metric_cart_crt content_group1 content_group2 content_group3 content_group4 content_group5 metric_cart_crt cmpid	click_content click_text click_element af_activityName
66p	-	G	general event	general_checkbox_click	When a checkbox is clicked except general event fires	G - general_checkbox_click	metric_navigation_redirect_crt navigation_type login_status cookie_consent_list metric_cart_crt content_group1 content_group2 content_group3 content_group4 content_group5 metric_cart_crt cmpid	click_content click_text click_element af_activityName
5p, 6p, 65p	-	G	general event	general_tab_click	When a Tab is clicked except general event fires	G - general_tab_click	metric_navigation_redirect_crt navigation_type login_status cookie_consent_list metric_cart_crt content_group1 content_group2 content_group3 content_group4 content_group5 metric_cart_crt cmpid	click_content click_text click_element af_activityName
67p	-	G	general event	general_selectbox_click	When a select box is clicked except general event fires	G - general_selectbox_click	metric_navigation_redirect_crt navigation_type login_status cookie_consent_list metric_cart_crt content_group1 content_group2 content_group3 content_group4 content_group5 metric_cart_crt cmpid	click_content click_text click_element af_activityName
13p, 19p	-	E	ecommerce	view_item	When page is viewed on PBP, PDP	E - view_item	compare_sku_list customer_group page_depth td_id user_id cookie_consent_list full_url_without_param login_id	{Product Variables} item_category item_category2 item_category3 item_category4 item_id
6p, 9p, 27p, 51p	-	E	ecommerce	select_item	When clicking 'Buy Now', 'Learn More' button or a product card image	E - select_item	url_content_group1 url_content_group2 url_content_group3 url_content_group4 url_content_group5 send_page_view local_time_full local_time_hour local_time_date sfmc_activityid server_container_url	{Product Variables} item_category item_category2 item_category3 item_category4 item_id
12p	-	E	ecommerce	view_item_list	When page is viewed on PLP	E - view_item_list	compare_sku_list bu metric_cart_crt login_id	{Product Variables} item_category item_category2 item_category3 item_category4 item_id
20p, 23p, 30p	dataLayer	E	ecommerce	add_to_cart	When clicking 'Add to Basket' or 'Checkout' button	E - add_to_cart	event_type_flag event_category interaction_hit click_location_component click_element local_time_date compare_sku_list bu metric_cart_crt login_id	{Product Variables} item_category item_category2 item_category3 item_category4 item_id
19p	dataLayer	E	ecommerce	add_to_wishlist	When clicking empty heart icon	E - add_to_wishlist	login_status stock_status	{Product Variables} item_category item_category2 item_category3 item_category4 item_id

1 Event List CD (Event Scope) CD (Item Scope) CD (User Scope) Custom Metrics

- 1 Select an Excel sheet to view the Event List and CD List
 - * CD: Custom Dimension
 - * Event List: Contains event information listed in the GA4 Event Guide
 - * CD List: Event information created by others as needed

[Leverage] Freely analyze at the event level in GA4 Explore by referring to your system component blueprints.

1 GA4 Custom Dimensions Blueprint

71	Sp	-	C	search	search_plp_filter	When using the Filter on PLP	C - search_plp_filter	search_filters search_location search_page_category
72	Sp	-	C	search	search_plp_sort	When sorting dropdown box on PLP	C - search_plp_sort	click_content search_page_category search_location
73	Sp	-	C	search	search_result_filter	When using the Filter on Search result page	C - search_result_filter	search_filters search_location search_page_category search_keyword

1

1 In your Custom Dimension Blueprint, check the Event Parameters for the event you identified in ①.

2 GA4 Explore

The screenshot shows the GA4 Explore interface. On the left, there are settings for dimensions (search_location, click_content) and columns. The main table displays event data. A red box highlights the columns 'search_page_category', 'search_location', and 'click_content' in the table header, with a '2' callout next to it.

Event name	search_page_category	search_location	click_content	Event count	
Totals				104,848	
1	search_plp_sort	plp_search	sort	Best Match	11,767
2	search_plp_sort	plp_search	sort	Best match	89
3	search_plp_sort	plp_search	sort	Consumer Rating	2,638
4	search_plp_sort	plp_search	sort	Consumer rating	33
5	search_plp_sort	plp_search	sort	LG Recommended	837
6	search_plp_sort	plp_search	sort	Most Popular	3,075
7	search_plp_sort	plp_search	sort	Most popular	64
8	search_plp_sort	plp_search	sort	Newest	5,636
9	search_plp_sort	plp_search	sort	Price : Highest to Lowest	14,207
10	search_plp_sort	plp_search	sort	Price : Lowest to Highest	65,026
11	search_plp_sort	plp_search	sort	Price : Lowest to Highest	3
12	search_plp_sort	plp_search	sort	Price : highest to lowest	499
13	search_plp_sort	plp_search	sort	Price : lowest to highest	920

2 In GA4 Explore, you can add Event Parameters to a Dimension to extract events that occurred on LG.com.

[Reference]Entity-specific codes and GA Property

Region	Code	Country	GA Property
NA (North America)	LGEUS	United States	
	LGECHICAGO	Chicago	
	LGECI	Canada	CA_EN,CA_FR
LATAM (SCA)	LGEMS	Mexico	MX
	LGECB	Colombia	CO
	LGECL	Chile	CL
	LGEPR	Peru	PE
	LGEPS	Panama	CAC_EN CAC
	LGESP	Brazil	BR
	LGEAR	Argentina	AR
	EU	LGEAG	Austria
LGEBN		Netherlands	NL
		Belgium	BE_FR
LGEDG		Germany	DE
		Switzerland	CH_DE
			CH_FR
LGEPL		Poland	PL
LGE CZ		Czech Republic	CZ
		Slovakia	SK

Region	Code	Country	GA Property
EU	LGEMK	Hungary	HU
		Bulgaria	BG
		Croatia	HR
		Serbia	RS
	LGERO	Romania	RO
	LGELV LGELA	Latvia	LV
		Estonia	EE
		Lithuania	LT
	LGEUK	United Kingdom	UK
	LGESW	Sweden	SE
		Denmark	DK
		Finland	FI
		Norway	NO
	LGEIB	Spain	ES
		Portugal	PT
	LGEFS	France	FR
	LGEIH	Greece	GR
Italy		IT	
CIS	LGEUR	Ukraine	UA
	LGERA	Russia	RU
	LGEAK	Kazakhstan	KZ

Region	Code	Country	GA Property	
ME&A	LGEEG	Egypt	EG_AR,EG_EN	
	LGE GF	UAE	UAE_AR,UAE_	
			EN	
	LGEIR	Iran	IR	
	LGETU	Tunisia	TN	
	LGEAS	Algeria	DZ	
	LGEMC	Morocco	MA	
	LGESA	South Africa	ZA	
	LGEAF	Nigeria	AFRICA,AFRIC A_FR	
	LGETK	Turkey	TR	
	LGE LF	Levant (Jordan, Syria, Iraq, Lebanon)	LEVANT_AR, LEVANT_EN	
	LGEYK	Israel	IL	
	LGESB	Saudi Arabia	SA, SA_EN	
	LGE PK	Pakistan		
	LGE EF	East Africa	EASTAFRICA	
	Asia	LGEAP	Australia	AU
			New Zealand	NZ
LGEML		Malaysia	MY	
LGE PH		Philippines	PH	
LGE SL		Singapore	SG	
		Bangladesh	BD	
		Nepal	NP	
	Sri Lanka	LK		

Region	Code	Country	GA Property
Asia	LGEIN	Indonesia	ID
	LGEJP	Japan	JP
	LGEVN/VH	Vietnam	VN
	LGEIL	India	IN
	LGETH	Thailand	TH
	LGETT	Taiwan	TW
	LGEHK	Hong Kong	HK, HK_EN
	LGECH	China	CN
Global			Global
			EC
NAC			UZ, UZ_RU

How to apply for GA4 permissions

Path: Access D2C Data Help Center > Register an Inquiry > Select GA4 Access from the Request Form

<https://lge5422.zendesk.com/hc>

D2C Data Help Center > Submit a request

Submit a request

Subject
Request GA4 Access ✓

Request Type
GA4 Tagging/Inquiry ✓

Request Form (optional)
GA4 Access ✓

If you need a specific request form, please select it.

Request Summary (optional)

3. Guidelines

- Please provide a specific reason for requesting Editor access.
- Make sure to attach a screenshot of the approval email from the LGE Team Leader, which includes the name and email address of the requester.
- For Agency, please provide LGE PIC's information (Name, Department, Email)

※ Application (신청 양식)

- Name / Company :
- Email address (personal email unacceptable – e.g. @gmail) :
- Access Level : Analyst / Editor
- Reason for the Editor Access :
- [EDITOR ONLY] LGE Team Leader's Editor Access Approval Email Screenshot :
- [AGENCY ONLY] LGE PIC's information (Name, Department, Email) :

Property/Locale for GA4 Access Management

CA_ALL(Canada) × CA_EN(Canada) × CA_FR(Canada) × ✓

Property/Locale for GA4 Access Management: cannot be blank

May select many, but please only choose the required ones

Description

Paragraph

Please copy and fill out the application form !

Description: cannot be blank

Please enter the details of your request. A member of our support staff will respond as soon as possible.

Priority (optional)

Attachments (optional)

Add file or drop files here

Click !

Submit

When you select GA4 Access in Request Form, the form required to apply for permission is generated, and you can follow it to apply

Permissions are granted twice a week (Tuesday/Friday), and results are sent to the registered email address

[Note]

- Permissions are valid for 1 year for Analyst and 6 months for Editor
- For Korea, US, and Russia properties, please contact your country representative separately.
- For Editor permissions requests, include a specific reason and a screenshot of the LGE team leader's approval email (including the requestor's name and email)
- For Agencies, the LGE PIC's information must be filled out (Name, Department, Email)

II. Detailed usage

1. D2C Dashboard Portal
2. Google Analytics 4
3. **Sprinklr**
4. Google BigQuery
5. Airflow
6. Google VertexAI
7. D2C Data Help Center

Sprinklr is a solution that specializes in collecting and analyzing data on consumer response across various online channels, including social media, and the D2C group uses Sprinklr to monitor and manage marketing performance directly with marketing channel representatives and partners.

Sprinklr modules that LG Electronics can utilize



Sprinklr Social

Content publishing, Owned account management, and reporting

- Publish and store social media content
- Measure social media performance
- Available for corporate channel owners and most legal entities



Sprinklr Insight

Collect social data and continuously monitor with dashboards

- Analyze text from channels such as social media, blogs, forums, news, etc.
- Benchmark influencer/competitor social media strategies
- Media PR Insights (used/paid for by PR global teams)
- Available in HQ



Sprinklr Marketing

Plan, execute, analyze, and optimize marketing/advertising through digital channels

- Manage marketing by viewing consolidated reports on ads you've run on each social media channel
- Available for HQ and most legal entities

The screenshot displays the Sprinklr Social Publishing interface. On the left, a 'Social Calendar' (1) shows a grid of posts scheduled for Sunday 21st and Monday 22nd. The main area is the 'Create Post' form (2), which includes fields for 'Select Accounts', 'Content', 'Campaign', and 'URL Shortener'. A 'Legal Review' dropdown menu (3) is open, showing options for 'Legal Review' and 'Legal review information (adding NLSS Reference number) MUST b...'. The interface is designed for bulk publishing to various social channels.

1 Publishing gives you an at-a-glance view of content published to each social

✘ Reps need to register their own channel on Sprinklr

2 Bulk publish your marketing content to the social channels you've registered and set up through Sprinklr

- Publish different types of content, including photos, videos, and more
- However, you'll need to tailor your content for each channel
- You can also set a publishing schedule on a set schedule

✘ Required compliance

3 When posting content to social, review the content for legal issues and enter the applicable legal review number

Deactivated due to invalid access token, please re-add account

Sprinklr Service | Sprinklr Insights | Sprinklr Marketing | Sprinklr Social

NEW! Introducing Persona Apps for a simplified user experience, with all features you need one click away

Social Performance Analytics
Measure, track and gain insights social performance

Listen
Opportunities to engage on all owned public digital conversations

Integrated Listening
Owned Social Accounts
All Digital Conversations

Audience Profile
Profiles

Data Engine
Manage Pipelines

UGC
User-Generated Content
UGC Templates

Accounts (Settings) | Add Account

Quick Filter: Social

Account Name

Add Account
Choose a channel you would like to add an account for

Search

Others

Business Unit (Account) | Account Region

Country (Account) | HQ or Market (Account)

Bot Account

Algeria, Argentina, Australia

⌘ Description: <https://help.sprinklr.com/articles/account/add-an-account/613766575f2e7c0c9ed36e3d>

1 First-party social accounts are registered with Sprinklr directly by the person who manages the login information for those accounts.

* For Instagram, only business accounts can be registered

2 When registering, we recommend setting your BU, country, etc. in 'Properties - Others'

⌘ If you changed the password for your first-party social account, you must re-register within Sprinklr

→ Deactivated if not re-registered, which may make it difficult to manage and publish through the dashboard within Sprinklr

[Reference] How to sign up for first-party social accounts (2/2)

The screenshot displays the Sprinklr Accounts management interface. On the left, a table lists accounts with an 'Edit' button highlighted by a red circle labeled '3'. A red arrow points from this button to the 'Permissions' configuration panel on the right. The 'Permissions' panel shows a list of actions: 'All', 'Publish', 'Engage', 'View Reporting', 'Channel Action', and 'View Planner'. The 'View Reporting' action is highlighted with a red box. To its right, a dropdown menu is open, showing 'All Accounts' selected, highlighted by a red box labeled '4'. Below this, three more dropdown menus are visible, each with 'Select Users / User Groups' selected, highlighted by a red box labeled '5'. At the bottom of the panel, there is a link to 'Add New Permission'.

※ Description: <https://help.sprinklr.com/articles/account/add-an-account/613766575f2e7c0c9ed36e3d>

- 3 Permissions check required during or after account registration
- 4 Set to All users for View Reporting to avoid administrative limitations
- 5 Set filters such as account manager or country

[Reference] Publishable post types by social channel

Facebook	Instagram	X	Youtube	Pinterest	VK	Wordpress	LinkedIn	Flickr	Bazaar Voice
Post	Photo	Message	Video	Pin	Post	Text	Post	Post	Post
Album	Video/Reels	Thread	Title and description	Board	Discussion Topic	Photo	Video	-	-
Live Video	Story	Photo	Captions for Video	Pin from Website	-	Video	Multi Photo	-	-
Carousel	Carousel	Video	Story	-	-	Link	Documents	-	-
etc	etc	etc	etc	-	-	Quote	etc		

- The publishable post types for each channel are constantly being added or changed based on updates and policies for each channel, so be sure to check the detailed description links below
- If it says Post as a single item, it is based on text, but you can also attach photos / videos (links), etc.
- On Facebook, you can "publish" a post in the form of an album, but you cannot "create" an album in Sprinklr. (You can only publish existing albums. You need to create albums on Facebook.)

※ **Description:** <https://www.sprinklr.com/help/articles/channels/capabilities-and-limitations-for-major-social-channels/6497cae9efca565f6513b278>

[Reference] Sprinklr features supported by each channel

Channel	Engagement	Publishing	Reporting	Advocacy	Channel	Engagement	Publishing	Reporting	Advocacy
Agoda	X	X	X	X	Reddit	●	●	●	X
Apple Business Chat	●	X	●	X	Sina Weibo	●	●	X(Depricated)	●
BazaarVoice	●	X	●	X	SlideShare	●	●	●	X
Classified	X	X	X	X	Snapchat	X	Planning Only	● (Both Organic & Ads)	X
Discord	●	●	●	X	TikTok	●	●	●	●
Meta	●	●	●	●	Tumblr	●	●	●	
Flickr	●	●	●	X	Trip Advisor	X	X	X	X
Foursquare	●	●	●	X	Twitch	X	X	●	X
Google Ads				X	X	●	●	●	●
Google DV360					Trustpilot	●	--	●	X
Google Business Messaging (GBM)	●	X	●	X	Telegram	●	--	●	X
Instagram	●	●	●	●	VK Group/Page	●	●	●	X
Jive	●	●	●	X	Viber	●	●	●	X
LINE	●	●	●	X	WeChat	●	●	● (Account-level measure ments supported)	X
LinkedIn	●	●	●	●	Whatsapp	●	X	●	X
Lithium	●	●	●	X	WordPress	●	●	●	X
Nextdoor	●	X		X	Yahoo	--	●	--	X
Opentable	X	X	X	X	Yelp	●			X
Pinterest	●	●	●	X	YouTube	●	●	●	X
Podcast	X	X	X	X	ZenDesk		●		X
PowerReviews	●	X	●	X	Zimbra		●	●	X
Quora	X	X	X	X					

※ Description: <https://www.sprinklr.com/help/articles/channels/social-channels-capabilities/64564f02e66f2e36b4514d88>

1 Smart Triage Dashboard (6 Columns) ☆

Engageable Messages

Jon Treloar @JonTreloar • Private Message • 1mins • 0-500

Sorry- What is LG's response to me? Not call the service centre, not call the warranty people. What does LG say to a customer that has had a terrible experience? As I have more appliance purchases to make in the near future, why should I chose LG?

Sent to LG Global

New Not Assigned
1 Queue Negative
Complaint Engageable
Warranty, 0 - 500
Canada, 0 - 500

Non-engageable Messages

MANISH @ManishTRUS... • Photo Retw... • just now • 0-500

Briefed & Ready to Play!
Everyone poses for the Group Pictures & best of luck to all the participants!
#BestTVForSports #SEFLITOLED #GalleryDesign #GolfOnOLED pic.twitter.com/CNwSweGJCJ

Retweet of @LGIndia

New Not Assigned
No Queues Neutral
Others Non-Engageable
OLED65B8PPTA
0 - 500
India, 0 - 500
[Auto Import]

Lead Messages

Nikhil Daga @NikhilDaga20 • Direct Message • 4hrs • 0-500

I want to buy lg wing
twitter.com/LGIndia/status...

Sent to @LGIndia

New Not Assigned
1 Queue Neutral
Leads Engageable
0 - 500
India, 0 - 500

2 View Conversation

Complaint Messages

Jon Treloar @JonTreloar • Private Message • 1mins • 0-500

Sorry- What is LG's response to me? Not call the service centre, not call the warranty people. What does LG say to a customer that has had a terrible experience? As I have more appliance purchases to make in the near future, why should I chose LG?

Sent to LG Global

New Not Assigned
1 Queue Negative
Complaint Engageable
Warranty, 0 - 500
Canada, 0 - 500

Moonrise @MoonriseBo... • Direct Mess... • 1mins • 5K-10K

Hello - I have had issues with my LG TV for a while. I thought it was a configuration issue that I could resolve. However, soon after our last correspondence my wifi was unable to connect through the TV itself. I have read that others have experienced the same issue, related to a defective chip. It is not the Wifi itself, since my Roku and other devices connect without issue. Further, I am getting a warning that the tv is overheating. This is at least

Anthony Manaday @AnthonyManaday • Private Mess... • 2mins • 0-500

Mark Anthony Manaday @MarkAnthonyManaday • 00453000843/00565926695

Mstyah Will @MstyahWill • Comment • 4hrs • 0-500

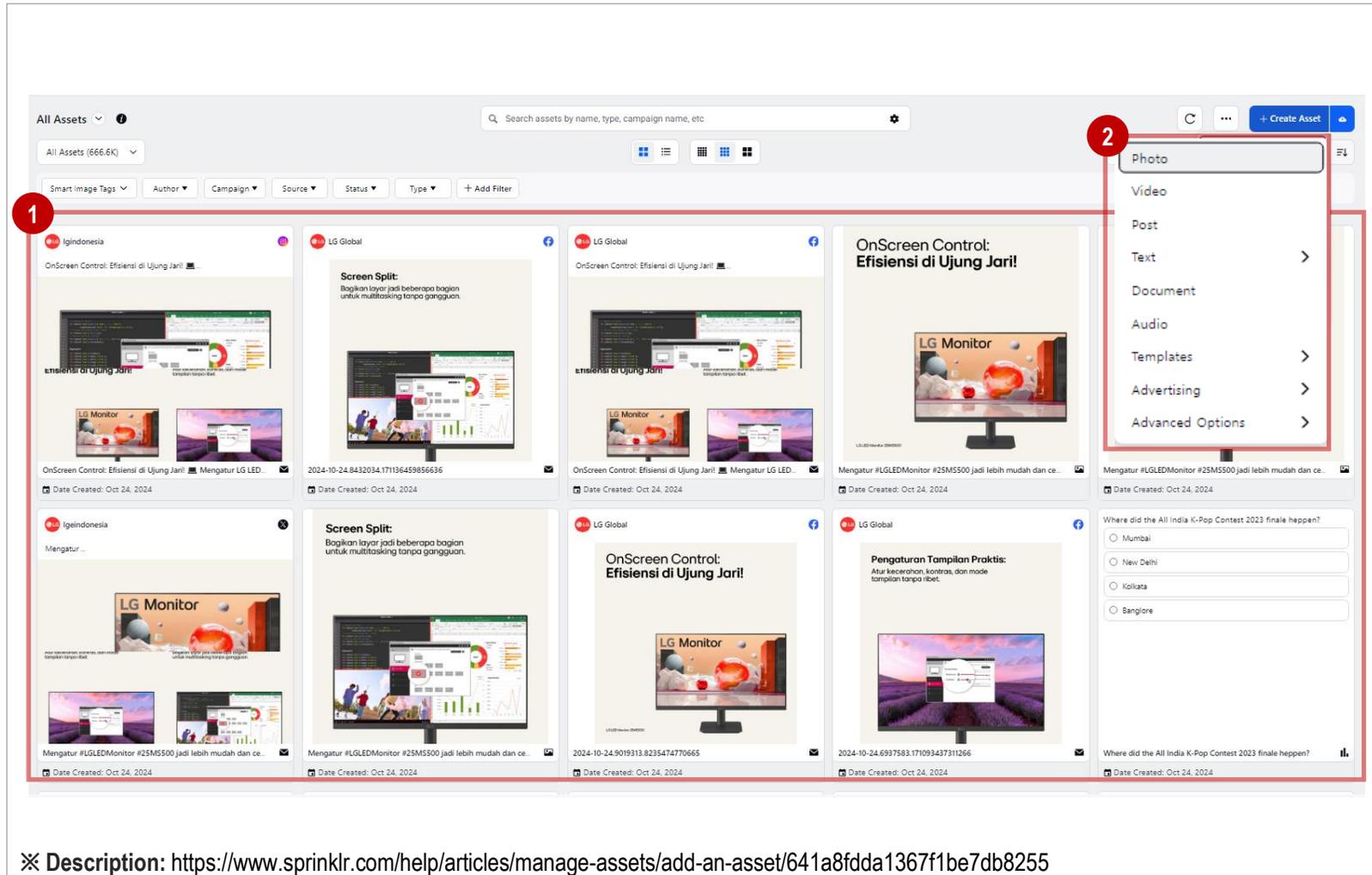
I want one ... 🍌🍌🍌

New Not Assigned
1 Queue Neutral
Leads Engageable
0 - 500, HE, TV, OLED TV, Generic, UK - Always On
United Kingdom, 0 - 500
New Post

Moonrise @MoonriseBo... • Direct Mess... • 1mins • 5K-10K

Hello - I have had issues with my LG TV for a while. I thought it was a configuration issue that I could resolve. However, soon after our last correspondence my wifi was unable to connect through the TV itself. I have read that others have experienced the same issue, related to a defective chip. It is not the Wifi itself, since my Roku and other devices connect without issue. Further, I am getting a warning that the tv is overheating. This is at least

- 1** Organize your dashboard by listing messages, comments, and mentions from all social media platforms in one QUE
- 2** Set up keyword, hashtag, and account-based monitoring to track conversations around your brand in real time
 - * Reply directly to collected customer messages or interact with them via direct mail

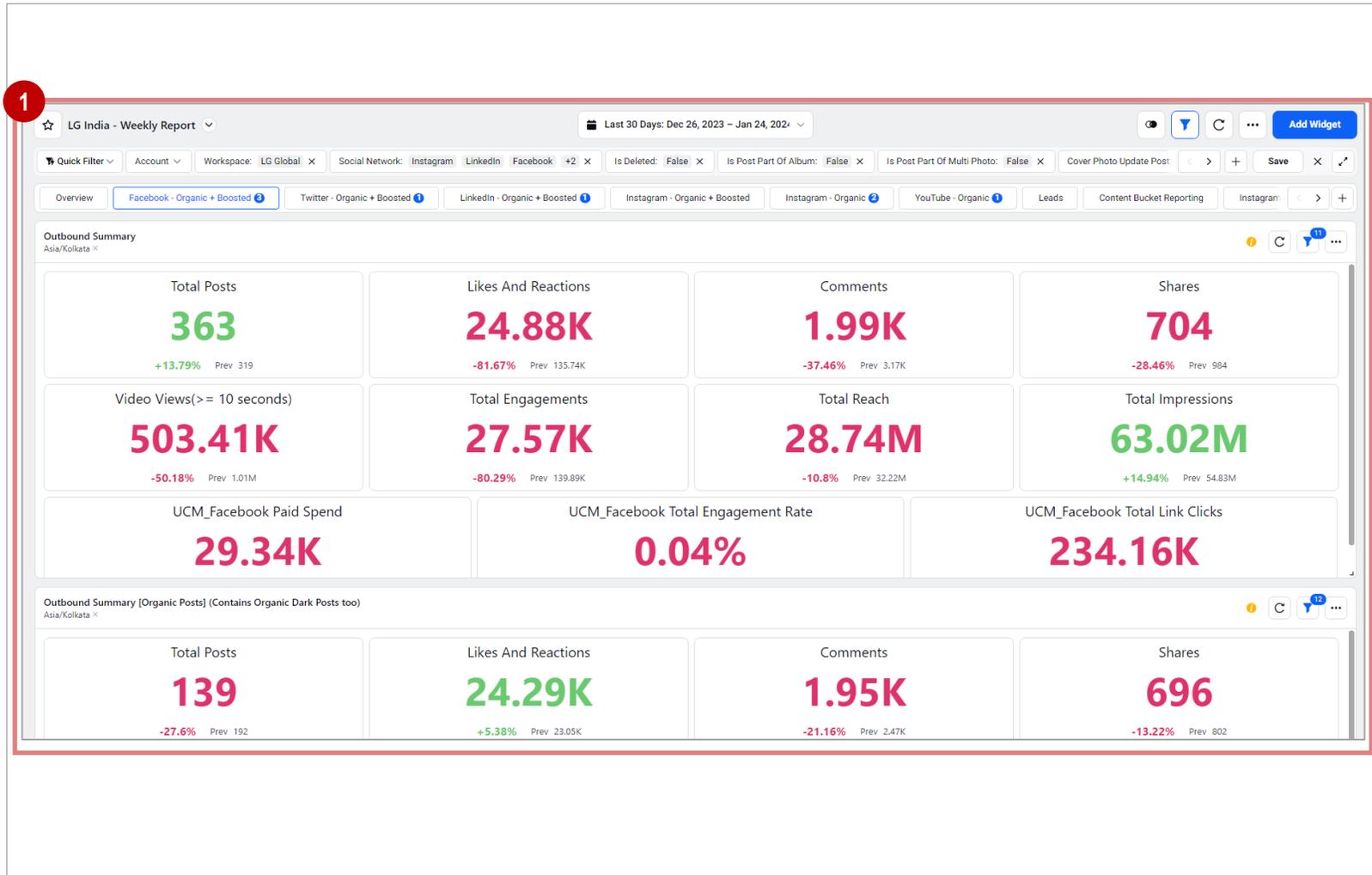


- 1 Manage digital marketing assets through tags and categories for social media images and videos, and share social media content among business units/corporations/partners.

Analyze content-specific data such as whether stored content is used by other entities, number of publications, and content reactions.

- 2 Create and archive most types of assets, as well as share externally and publish directly to your own Sprinklr-linked account

✂ Description: <https://www.sprinklr.com/help/articles/manage-assets/add-an-asset/641a8fdda1367f1be7db8255>



1 Sprinklr provides a unified dashboard for managing content published across multiple social platforms, where you can monitor social media activity, customer engagement, and more in real-time.

[Key metrics]

- Engagement: Likes, comments, shares, click-through rate
- Impressions: Total impressions, impression frequency, organic/paid impressions
- Audience: Follower growth, demographics, time of day, activity

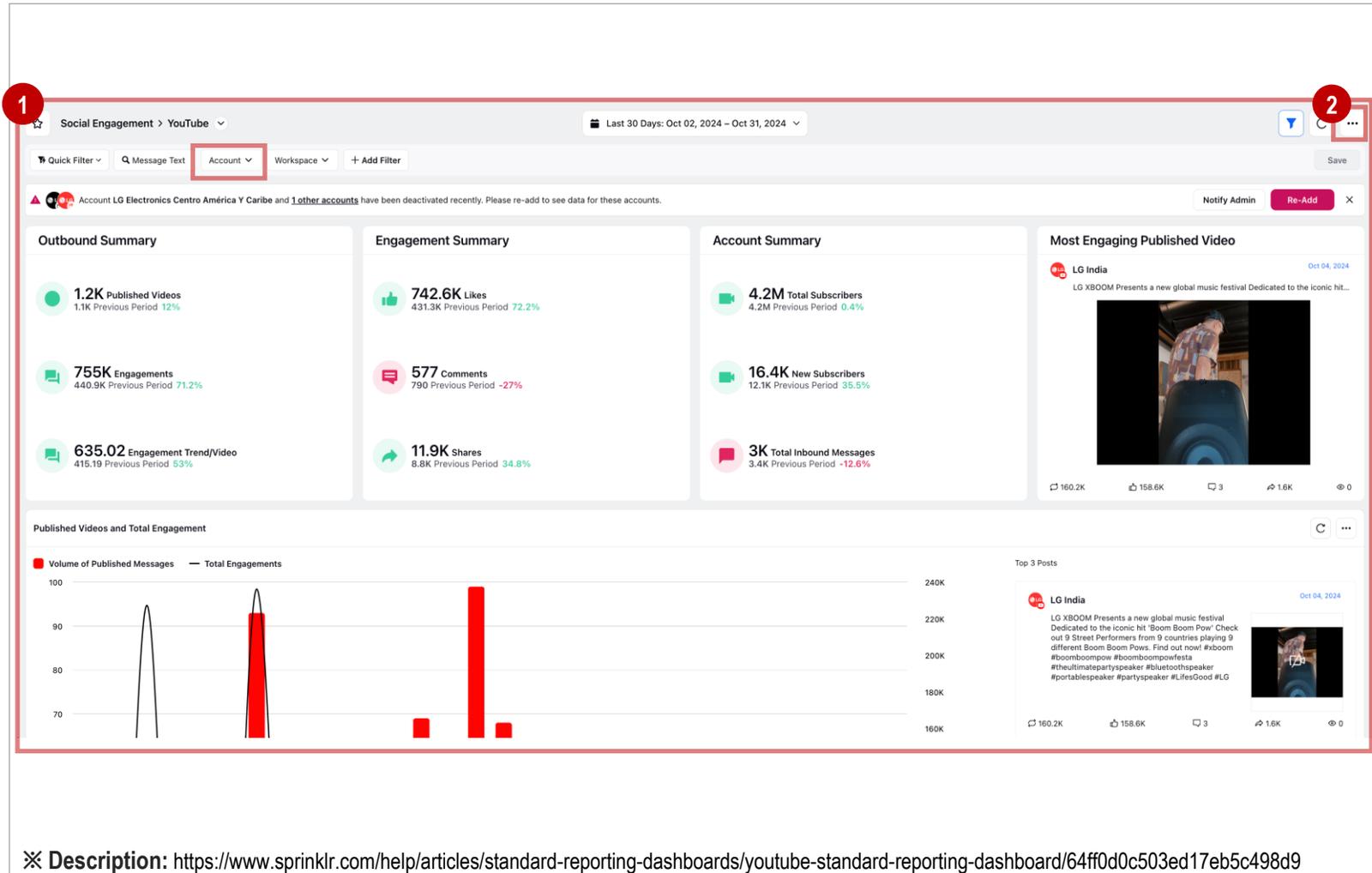
The screenshot shows the Sprinklr Social interface. On the left, a navigation menu includes 'Analytics', 'Reporting', 'Reporting Glossary', 'Value Realization', 'Custom Metrics', 'Visualizations', and 'Presentations'. A red circle with the number '1' highlights the 'Reporting' menu item. In the center, a 'Reporting Dashboards' dropdown menu is open, showing a search bar and a list of dashboard categories: 'Standard Dashboards (19)', 'Campaign (2)', 'Social Engagement (20)', 'Journey Execution Reporting (1)', 'Inbound Tag', 'Outbound Tag', 'SLA', and 'Stage SLA'. A red circle with the number '2' highlights the 'Social Engagement (20)' category. To the right, a search bar 'Search Dashboards...' is shown above a list of social channels: 'Overview', 'Account Performance', 'Post Performance', 'X', 'Facebook', 'YouTube', 'LinkedIn', 'Google My Business', and 'VK'. A red box highlights the 'Social Engagement' category in this list. At the bottom right of the dropdown menu, there is a blue 'Create Dashboard' button. At the bottom of the channel list, there is another blue 'Create Dashboard' button.

1 The Reporting menu offers 19 different types of standard reporting dashboards, as well as one-click monitoring of content analysis reporting dashboards that leverage AI capabilities.

*Reporting Glossary provides descriptions of the various metrics used in the Reporting dashboard.

2 Among the standard reporting dashboards, the "Social Engagement" type dashboard provides analytics dashboards for each social channel, including X, Facebook, YouTube, etc.

⌘ Description: <https://www.sprinklr.com/help/articles/standard-reporting-dashboards/youtube-standard-reporting-dashboard/64ff0d0c503ed17eb5c498d9>



1 Data from all first-party accounts registered with Sprinklr can be viewed at a glance, and the Account filter allows users to select the specific accounts they want to monitor and analyze the data. The standard reporting dashboard reflects all metrics available for analysis through that channel, making it easy for users to analyze data.

2 Sprinklr clones all standard dashboards so that they can be customized for your purposes, and there are no restrictions on cloning and creating additional dashboards.

1 Sprinklr Insights

2 Listening

- Topics
- Themes
- Keyword Lists

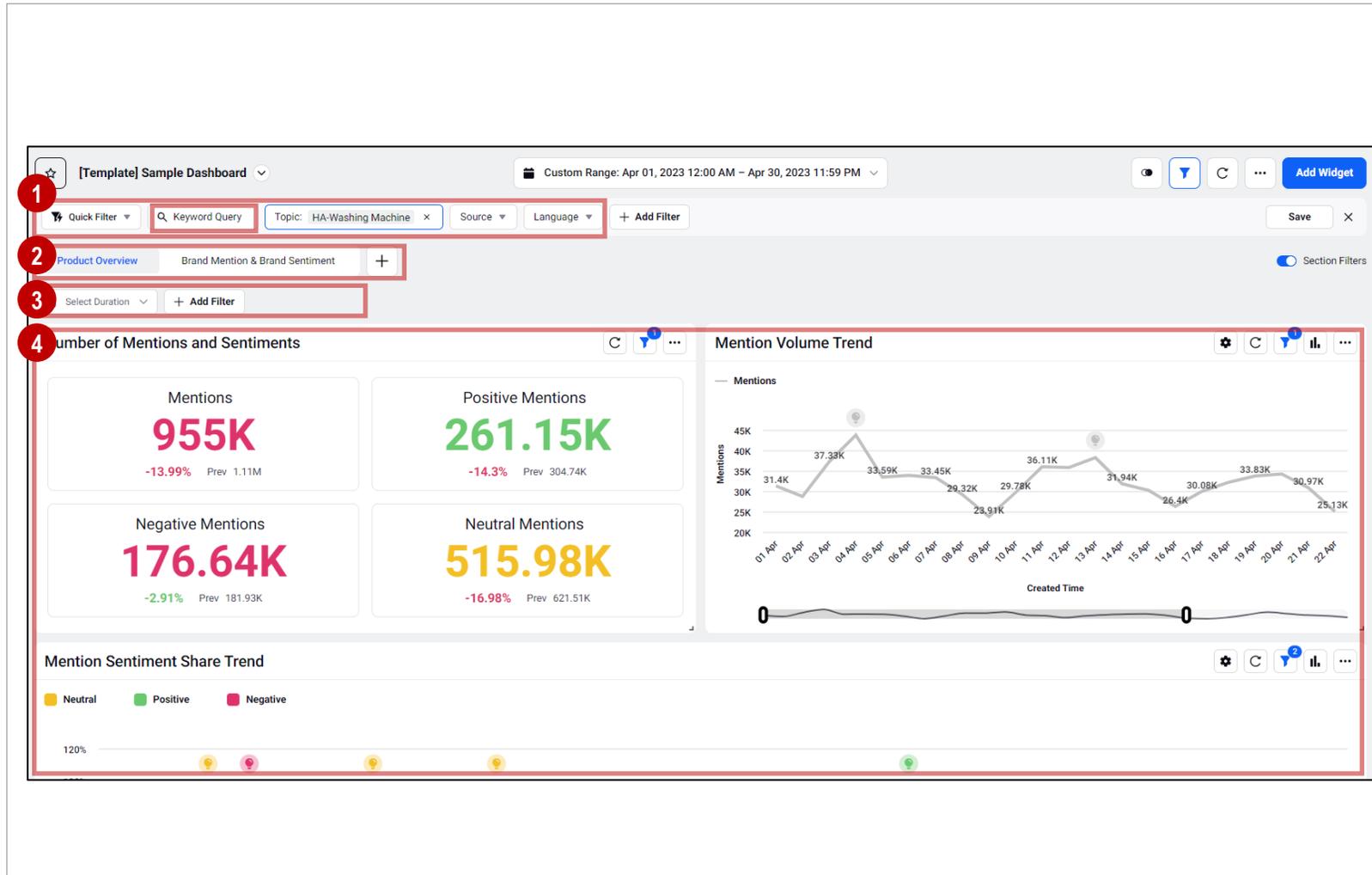
3 Custom

- Listening Dashboards
- Benchmarking Dashboards

✖ Description: <https://www.sprinklr.com/help/articles/what-is-social-listening/what-is-social-listening/645ba4abe66f2e36b451888a>

- 1** Sprinklr Insights is a module that allows you to collect and analyze social data, and leverage the Listening feature within that module to perform analysis on specific topics on social.
- 2** Listening provides access to a wide variety of data from social media, forums, news, reviews, and more from around the world.
 - Listening is organized into Topic, Theme, and Keyword Lists, each of which can be created for each analytical perspective and then applied in the dashboard for analysis.
- 3** Extract the data you want from the Listening dashboard and build custom dashboards for analysis

[Reference] Listening Dashboard Example



1 Filters: Tools you use to see only the information you want, applied in bulk across dashboards

Keyword Query: See results that contain that keyword

2 Section: Pages that make up a dashboard, you can create multiple per purpose

3 Section Filter: Date ranges and filters to apply to each section separately

4 Widget: A unit that makes up a Section, an individual graph/chart that visually displays data.

The screenshot displays the Sprinklr dashboard with an 'Add Alerts' modal window open. The modal is configured with the following settings:

- Name:** Provide a name to the alert
- Add Condition:** Metrics: Mentions, Operator: Increases By, Threshold Value: Give Alert Value
- Settings:** Check Conditions: Everytime, Every 15 mins

The background dashboard shows a bar chart of 'Distinct Users' over time. A red box highlights a significant spike on Dec 01, labeled with a '2'. Below the chart, an email alert is shown with the following details:

[Sprinklr] Volumetric Alert - Language containing English and Topic containing HA-LG-Refrigerator 04 Apr 2023 01:35 PM (GMT)

Sprinklr - user@alerts.sprinklr.com - 수신완료

4월 4일 (화) 오후 10:45 (KST) (간) ☆ ↵

영어 > 한국어 - 해당 번역 | 영어 번역 안함 x

Hi,

You are getting this message because there's activity that matches the following conditions defined in TEST HA-Refrigerator ENG_Volume of Mentions>10, every 30min:

Language containing English
topic containing HA-LG-Refrigerator

Alert Condition: 10 (Volume of Mentions)
Count: 11
Alert Frequency: Every 30 minutes
Time of Activity: Tue, 04 Apr 2023 01:35 PM (GMT)

Send emails when outliers occur

1 Set up Smart Alert conditions to monitor mentions of your brand and products on social in real time

2 Combine with Listening to send email alerts when outliers occur

+ Smart Insights features (light bulb icon) leverage Sprinklr AI to help users analyze data, not just outliers.

※ Description: <https://www.sprinklr.com/help/articles/alerts/introduction-to-alerts/6465133f8ea3c9635cf36bc9>

1 Instagram Hashtags Registered 2430 Total

Fetching	Hashtag	Status	Topics	Topic Count
<input checked="" type="checkbox"/>	2024kbis	Active	Campaign_KBIS2024	1
<input checked="" type="checkbox"/>	2024mdw	Active	Milan Design Week 2024	1
<input checked="" type="checkbox"/>	24mdw	Active	Milan Design Week 2024	1
<input checked="" type="checkbox"/>	24mow	Active	M.O.W. - the Trade Fair for Furnit...	1
<input checked="" type="checkbox"/>	3dprinting	Active	Automobile Industry	1
<input checked="" type="checkbox"/>	3g	Active	Ambassadors Philips LG Electronics - DE LG Electronics - Spain +8	12
<input checked="" type="checkbox"/>	4g	Active	Ambassadors Philips LG Electronics - DE LG Electronics - Spain +8	12
<input checked="" type="checkbox"/>	4k	Active	HE - DE Competitors - Language HE-OLED-DE HE - DE Competitors - Country +2	5
<input checked="" type="checkbox"/>	4kbestprojector	Active	BS-Sony-Projector [PR] BS-Projector BS-Samsung-Projector BS-Epson-Projector +2	6
<input checked="" type="checkbox"/>	4kbestprojectors	Active	BS-Sony-Projector [PR] BS-Projector BS-Samsung-Projector BS-Epson-Projector +2	6
<input checked="" type="checkbox"/>	4khomeprojector	Active	BS-Sony-Projector [PR] BS-Projector BS-Samsung-Projector BS-Epson-Projector +2	6
<input checked="" type="checkbox"/>	4khomeprojectors	Active	BS-Sony-Projector [PR] BS-Projector BS-Samsung-Projector BS-Epson-Projector +2	6
<input checked="" type="checkbox"/>	4kmonitor	Active	LG Global BS-ASUS-Monitor TEST-BS-Monitor(Gaming Monit... [PR] BS-Monitor +9	13
<input checked="" type="checkbox"/>	4kmonitors	Active	LG Global BS-ASUS-Monitor TEST-BS-Monitor(Gaming Monit... [PR] BS-Monitor +9	13
<input checked="" type="checkbox"/>	4koled	Active	HE - DE Competitors - Language HE-OLED-DE HE - DE Competitors - Country	3
<input checked="" type="checkbox"/>	4kprojector	Active	BS-Sony-Projector [PR] BS-Projector PJTR Projector_KR_ENG_Parent +9	12
<input checked="" type="checkbox"/>	4kprojectors	Active	BS-Sony-Projector [PR] BS-Projector BS-Samsung-Projector BS-Epson-Projector +2	6
<input checked="" type="checkbox"/>	4kprojectorstv	Active	BS-Sony-Projector [PR] BS-Projector BS-Samsung-Projector BS-Epson-Projector +2	6
<input checked="" type="checkbox"/>	4kprojectortv	Active	BS-Sony-Projector [PR] BS-Projector BS-Samsung-Projector BS-Epson-Projector +2	6
<input checked="" type="checkbox"/>	55uh7700	Active	Super UHD TV Super UHD TV_added	2

⌘ Description: <https://www.sprinklr.com/help/articles/activate-instagram-hashtags/use-instagram-hashtags-manager-to-manage-your-hashtags/6464b74830f12540268fad32>

1 To collect VOCs from Instagram, you need to follow Meta's policies and there are limitations, so to manage this effectively, Sprinklr uses a feature called Instagram Hashtag Management.

Meta can only collect data from keywords that contain hashtags, not generic keywords, and limits the number of hashtags that can be collected.

Users with the purpose of collecting Instagram VOCs should ensure that their hashtag keywords are registered with Sprinklr through a Sprinklr representative, and further registration will be verified by an LG Sprinklr representative.

1

Brand	Total Engagements	Brand Posts	Estimated Post Reach	Account Owned Impressions	Account Earned Impressions	Total Account Impressions	Daily Unique Participation
Huawei Followers 318.9K 0.99%	1.7K	235	3.1M	21.9M	731K	22.6M	973
Xiaomi Followers 170.9K 5.78%	21.3K	547	4.9M	24.7M	530.7K	25.2M	585
Samsung Followers 160.5M 0.00%	17.9K	1.3K	1.2B	3.2B	516.9K	3.2B	1.2K
LG Accounts Followers 365.6K 0.31%	2.6K	85	1.6M	11.9M	365.2K	12.3M	256
LG Followers 381.3K 0.29%	2.6K	85	1.6M	11.9M	365.2K	12.3M	256
Sony Followers 1.4M -0.09%	649	56	6.3M	21M	198.8K	21.2M	213
Luke Edward Hall Followers 149K 6.09%	183.7K	57	1.4M	8.1M	184.1K	8.3M	0
Monikh Dale Followers 208.1K 2.22%	175.1K	53	1.8M	10.7M	174.5K	10.9M	0
Professor Green Followers 862K -0.26%	146K	26	3.4M	22.4M	146.8K	22.6M	0
Bose	372	38	988.1K	4M	62K	4.1M	115

1 Benchmarking allows you to register your key competitors' or influencers' social media accounts in Sprinklr to monitor their marketing campaigns and key social media activities so you can compare them to your own social media metrics such as follower growth/engagement/content effectiveness.

Track performance changes over time to identify long-term trends and measure the rate of mentions and influence of your brand and campaigns within your industry

* Registration of competitor brand or influencer accounts in the benchmarking module is subject to the approval of Sprinklr and LG representatives.

⌘ **Description:** <https://www.sprinklr.com/help/articles/what-is-benchmarking/how-to-get-started-with-benchmarking/645b92670104980882a5a73b>

1

*LG Global Ads: Top Metrics All Channels

Last 30 Days: Dec 27, 2023 - Jan 25, 2024

Currency: United States Dollar (\$) Quick Filter + Save

Summary +

<input type="checkbox"/>	Paid Initiative (Campaign Name)	Account	Ad Objective	Spent	Impressions	Facebook Link Clicks	Facebook Cost Per Link Click	Facebook Link Click Through Rate	Cost Per 1,000 Impressions (CPM)	Facebook Video Views	Facebook Video Views to 100%	Facebook Post Engagement
<input type="checkbox"/>	2023 Q4 XBU Trans...	LG USA	Facebook Engage...	\$3,948.64	2,360,426	13,785	\$2.75	0.58%	\$16.08	2,076,490	6,923	2,090,312
<input type="checkbox"/>	BR_HE_TV_BR_24...	Almap LG do Brasil	Facebook Sales (N...	\$33,814.08	22,528,662	143,622	\$0.24	0.64%	\$1.5	88	0	165,102
<input type="checkbox"/>	2023 HA Laundry A...	LG USA	Facebook Engage...	\$22,363.74	8,210,623	12,169	\$1.84	0.15%	\$2.72	3,565,436	2,096,162	3,578,005
<input type="checkbox"/>	2024 HE TV AON C...	LG USA	Facebook Leads (N...	\$20,460.23	1,978,410	14,864	\$1.38	0.75%	\$10.34	1,054	673	16,943
<input type="checkbox"/>	2024 HA Refrigerat...	LG USA	Facebook Leads (N...	\$19,192.35	2,007,075	36,256	\$0.53	1.81%	\$9.56	199,688	69,517	237,919
<input type="checkbox"/>	OBS_WM_Leads_J...	ZO=LG Online Bran...	Facebook Leads (N...	\$18,620.92	30,489,854	96,211	\$0.19	0.32%	\$0.61	1	0	115,464
<input type="checkbox"/>	2023 HA ThinQ Car...	LG USA	Facebook Engage...	\$15,252.9	5,095,673	7,791	\$1.96	0.15%	\$2.99	2,213,136	1,490,756	2,220,950
<input type="checkbox"/>	BR_HE_TV_BR_24...	Almap LG do Brasil	Facebook Traffic (N...	\$12,585.88	31,302,356	197,728	\$0.06	0.63%	\$0.4	0	0	203,819
<input type="checkbox"/>	2024 HA Laundry A...	LG USA	Facebook Leads (N...	\$11,052.46	1,586,578	22,115	\$0.5	1.39%	\$6.97	177	0	24,263

Twitter: Results by Campaign Name - Top Metrics

<input type="checkbox"/>	Paid Initiative Name	Ad Account	Ad Objective	Spent	Impressions	X Post Engagements	X Link Clicks	Cost Per 1,000 Impressions (CPM)	X Video Mrc Views (Deprecated)	X Post Video Views 100% (In-stream views for Pre-roll)	X Post Likes	X Post Reposts
<input type="checkbox"/>	WTJan24	LG India	X Video Views	\$572.55	632.3K	2.93K	101	\$0.91	0	2.32K	114	3

1 Cross-channel advertising allows you to plan, execute, and monitor campaigns across multiple channels (social media, email, web, etc.) from one platform.

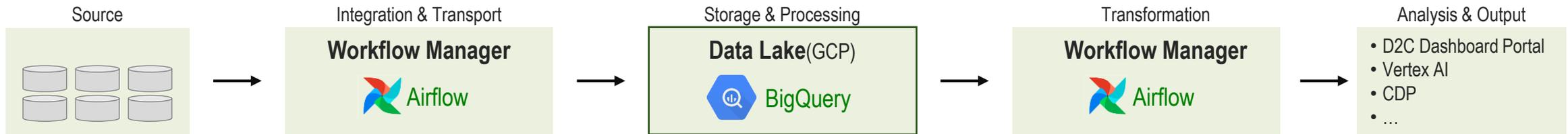
* Requires an ad account registration with Sprinklr

II. Detailed usage

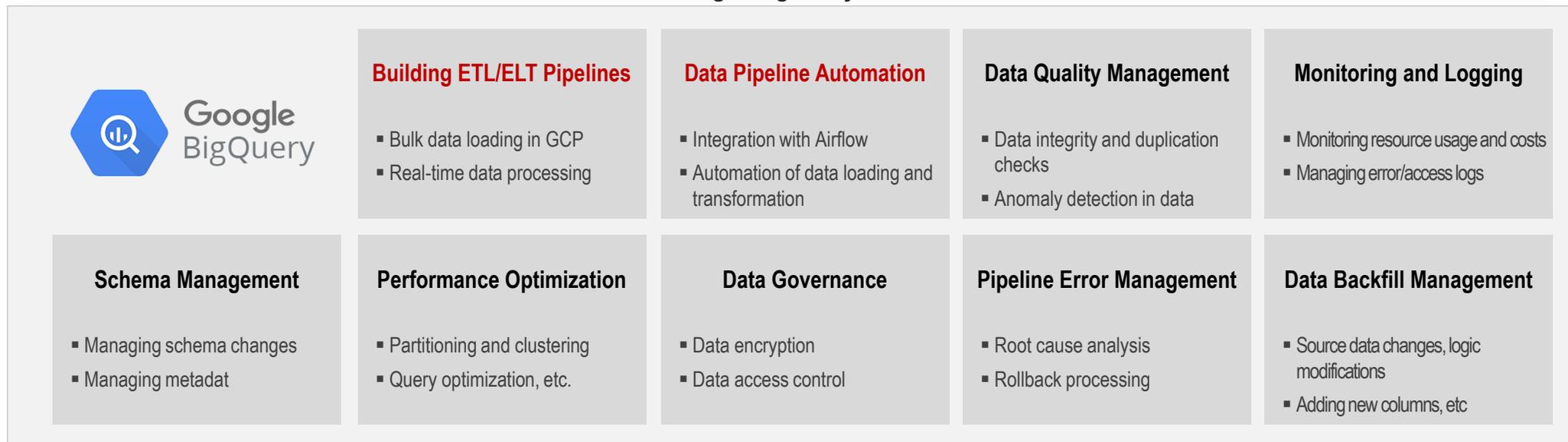
1. D2C Dashboard Portal
2. Google Analytics 4
3. Sprinklr
4. **Google BigQuery**
5. Airflow
6. Google VertexAI
7. D2C Data Help Center

Overview of Google BigQuery

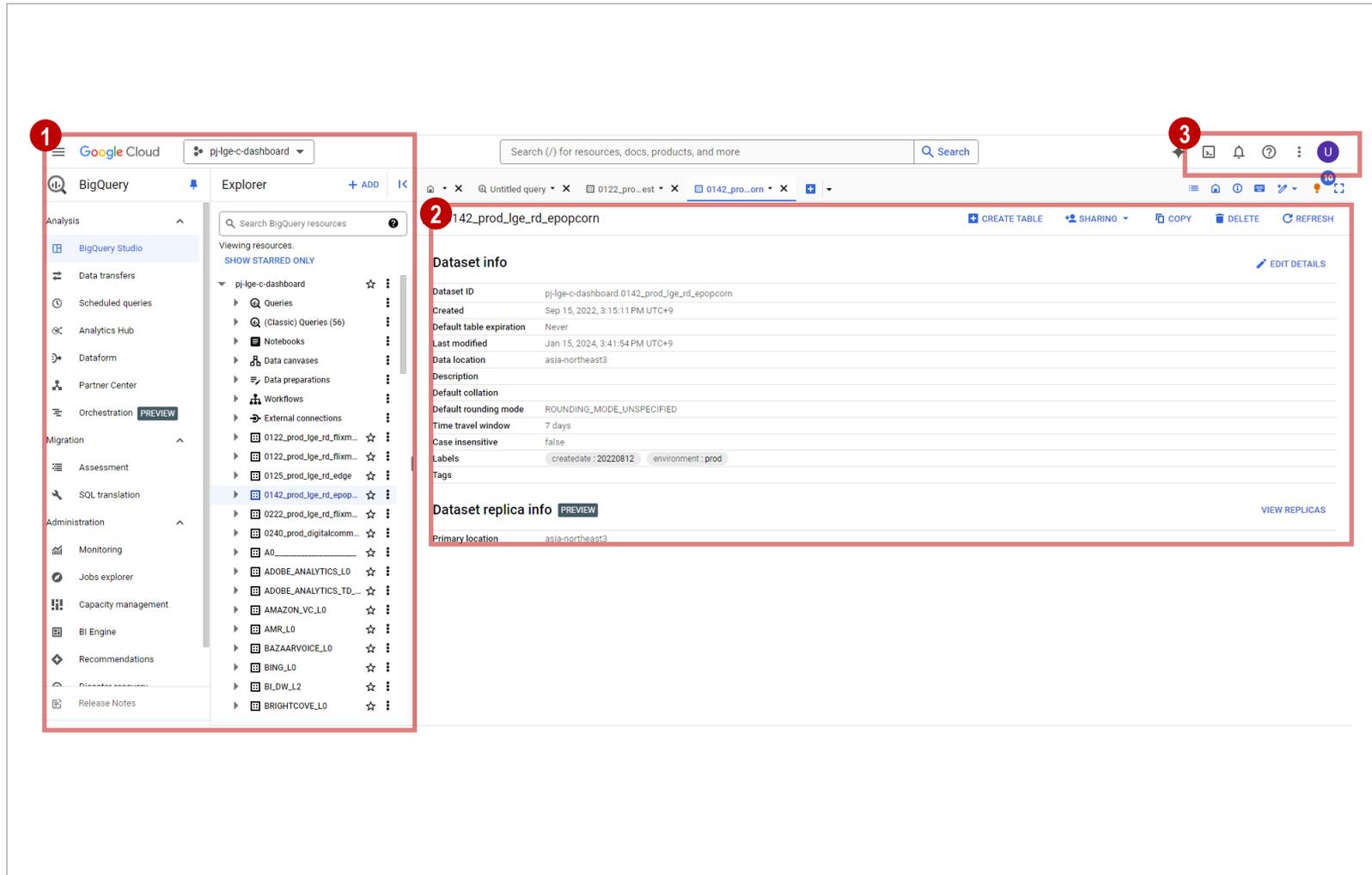
The D2C group is loading data onto the Google Cloud Platform and utilizing BigQuery to manage it. Data engineers within the group build and automate pipelines through BigQuery to establish the basic environment needed for data analysis.



Areas of Google BigQuery Utilization



※ Permissions for GCP can be requested through the EP > Request



1 D2C data is stored using BigQuery for each project on the Google Cloud Platform.

2 Detailed table information of the data can be checked.

✘ Mandatory compliance required.
3 Users are assigned permissions per project, and data access and usage are restricted to the granted permissions

The screenshot displays the Google Cloud BigQuery interface. On the left, the Explorer pane shows a project named 'pj-lge-gmc-data-store' with various resources like Queries, Notebooks, and Data canvases. The main area shows an 'Untitled query' with the following SQL code:

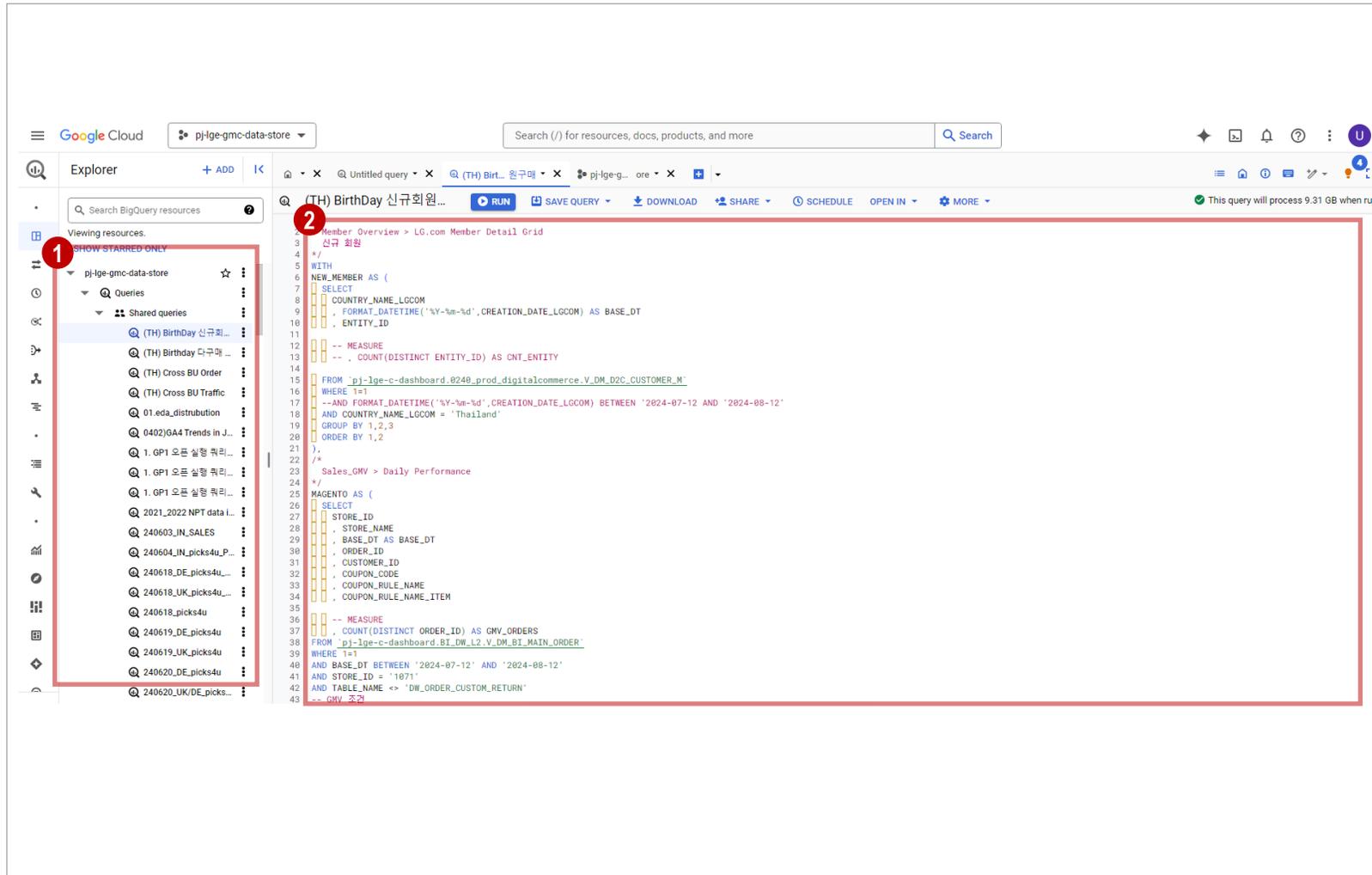
```
1 select * from `pj-lge-gmc-data-store.PCX_TARGET_GA4_weekly_report`;
```

Below the query editor, the 'Query results' section is visible, showing a table with 9 rows and 10 columns. The columns are: Row, country, SUBSIDIARY, type, event_date, is_p, con_day, imp, imp_signup, and imp. The data is as follows:

Row	country	SUBSIDIARY	type	event_date	is_p	con_day	imp	imp_signup	imp
1	Germany	LGE DE	0.NOTI	20240823	2.NP	07d	5445	17	
2	Germany	LGE DE	0.NOTI	20240823	2.NP	30d	5445	27	
3	Germany	LGE DE	0.NOTI	20240813	2.NP	30d	7115	32	
4	Germany	LGE DE	0.NOTI	20240813	2.NP	07d	7115	27	
5	Germany	LGE DE	0.NOTI	20240912	2.NP	07d	10537	32	
6	Germany	LGE DE	0.NOTI	20240912	2.NP	30d	10537	43	
7	Germany	LGE DE	0.NOTI	20240831	2.NP	30d	4241	34	
8	Germany	LGE DE	0.NOTI	20240831	2.NP	07d	4241	23	
9	Germany	LGE DE	0.NOTI	20240822	2.NP	30d	5233	37	

1 You can verify the data you want to check immediately using standard SQL

2 Additionally, you can delete or modify the data depending on your permission

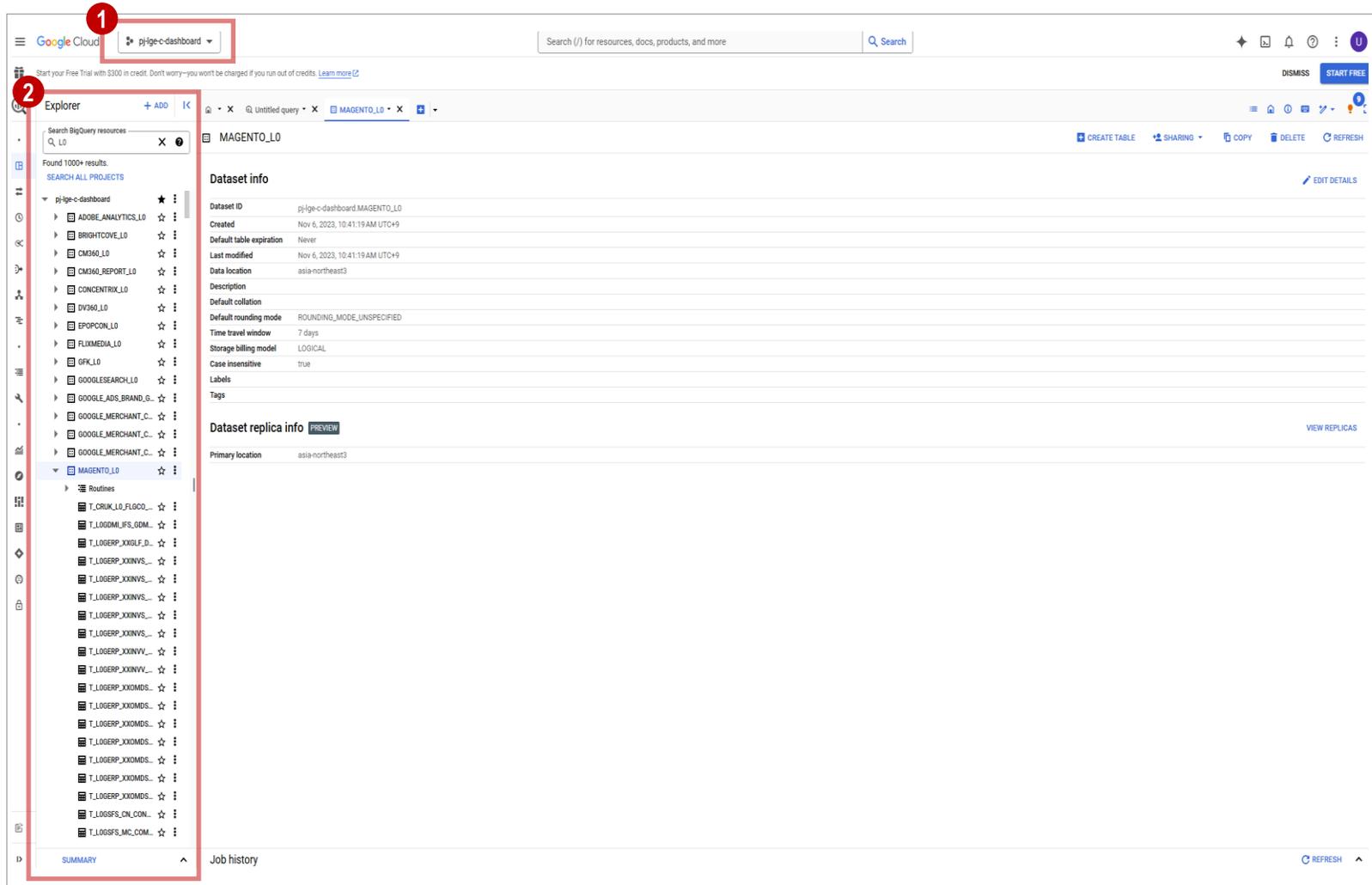


1 It provides Function, Procedure, and Schedule features similar to other databases

2 You can write Functions and Procedures in the console according to the project requirements using standard SQL.

How to Use Google BigQuery for LGE (1/4)

4. Google BigQuery



1 Select the current D2C project under SM.

* Refer to the next page for project information.

2 In BigQuery Studio, use the exploration feature to enter L0 and verify the data source ingested through Airflow

[Reference] GCP Project List

4. Google BigQuery

Project name	Country name	Project name	Country name	Project name	Country name	Project name	Country name
pjt-lge-cdp-in	CDP India	pjt-lge-gmc-dk	Denmark	pjt-lge-gmc-levant	Jordan (Levant)	pjt-lge-gmc-sw	Sweden
pjt-lge-cdp-ru	CDP Russia	pjt-lge-gmc-dz	Algeria	pjt-lge-gmc-ik	Sri Lanka	pjt-lge-gmc-th	Thailand
pjt-lge-cdp-uk	CDP UK	pjt-lge-gmc-eastafrika	East Africa	pjt-lge-gmc-lt	Lithuania	pjt-lge-gmc-tn	Tunisia
pjt-lge-gmc-ae	UAE	pjt-lge-gmc-ec	Ecuador	pjt-lge-gmc-lv	Latvia	pjt-lge-gmc-tr	Turkey
pjt-lge-gmc-africa	Africa	pjt-lge-gmc-ee	Estonia	pjt-lge-gmc-ma	Morocco	pjt-lge-gmc-tw	Taiwan
pjt-lge-gmc-ar	Argentina	pjt-lge-gmc-eg	Egypt	pjt-lge-gmc-mx	Mexico	pjt-lge-gmc-ua	Ukraine
pjt-lge-gmc-at	Austria	pjt-lge-gmc-es	Spain	pjt-lge-gmc-my	Malaysia	pjt-lge-gmc-us	United States
pjt-lge-gmc-au	Australia	pjt-lge-gmc-fi	Finland	pjt-lge-gmc-nl	Netherlands	pjt-lge-gmc-uz	Uzbekistan
pjt-lge-gmc-bd	Bangladesh	pjt-lge-gmc-fr	France	pjt-lge-gmc-no	Norway	pjt-lge-gmc-vn	Vietnam
pjt-lge-gmc-be	Belgium	pjt-lge-gmc-global	Global	pjt-lge-gmc-np	Nepal	pjt-lge-gmc-za	South Africa
pjt-lge-gmc-bg	Bulgaria	pjt-lge-gmc-gr	Greece	pjt-lge-gmc-nz	New Zealand	pj-lge-c-dashboard	c-Dashboard
pjt-lge-gmc-br	Brazil	pjt-lge-gmc-hk	Hong Kong	pjt-lge-gmc-pe	Peru	pj-lge-gmc-data-store	data store
pjt-lge-gmc-ca	Canada	pjt-lge-gmc-hr	Croatia	pjt-lge-gmc-ph	Philippines	pj-lge-gmc-ga4-global	pj-lge-gmc-ga4-global
pjt-lge-gmc-cac	Panama	pjt-lge-gmc-hu	Hungary	pjt-lge-gmc-pl	Poland	[Main Projects for Use] <ul style="list-style-type: none"> c-dashboard: Primary project for DW/DM data loading. gmc-data-store: Project that allows querying bypassing c-dashboard (*No cost deduction for queries, and queries are executed in this project). gmc-ga4-global: Project for loading GA4 raw data (GA4 → gmc-ga4-global → gmc-c-dashboard). 	
pjt-lge-gmc-ch	Switzerland	pjt-lge-gmc-id	Indonesia	pjt-lge-gmc-pt	Portugal		
pjt-lge-gmc-cl	Chile	pjt-lge-gmc-il	Israel	pjt-lge-gmc-ro	Romania (Romania)		
pjt-lge-gmc-cn	China	pjt-lge-gmc-ir	Iran	pjt-lge-gmc-rs	Serbia		
pjt-lge-gmc-co	Colombia	pjt-lge-gmc-it	Italy	pjt-lge-gmc-sa	Saudi Arabia		
pjt-lge-gmc-cz	Czech Republic	pjt-lge-gmc-jp	Japan	pjt-lge-gmc-sg	Singapore		
pjt-lge-gmc-de	Germany	pjt-lge-gmc-kz	Kazakhstan	pjt-lge-gmc-sk	Slovakia		

The screenshot shows the Google Cloud BigQuery console interface. On the left sidebar, under 'Routines (72)', the function 'FN_COUPON_ID_COMPARE' is selected and marked with a red circle and the number '1'. The main panel displays the 'Persistent function info' for 'FN_COUPON_ID_COMPARE', including its ID, creation and modification dates, language (JAVASCRIPT), description, arguments, and return type. Below this, the 'Routine query' is shown in a code editor, also highlighted with a red box and labeled '2'. The code is a JavaScript function that processes coupon IDs from source data into target data.

```
function FN_COUPON_ID_COMPARE(target_coupon_ids, source_coupon_ids) {
  // 기능 : target_coupon에 source_coupon에 포함되지 않은 id가 존재하면 제거
  // 원본시작 :
  // 개월단위 :
  // 1. 2024.02.14 - ATH - 최종 변경
  //
  if (target_coupon_ids !== source_coupon_ids) {
    var split_arr_target = target_coupon_ids.split(',');
    var split_arr_source = source_coupon_ids.split(',');
    var arr_remove_item = [];

    for (i=0; i<split_arr_target.length; i++) {
      var target_item = split_arr_target[i];
      var target_index = split_arr_source.indexOf(target_item);
      if (target_index == -1) {
        arr_remove_item.push(target_item);
      }
    }

    arr_remove_item.forEach(function(item, index) {
      var remove_item_index = split_arr_target.indexOf(item);
      split_arr_target.splice(remove_item_index, 1);
    });

    if (split_arr_target !== split_arr_target.join(',')) {
      return split_arr_target.join(',');
    }
  }
}
```

- 1 Check the L1 data, which is the first processed data from the L0 source data.
- 2 Create a function for generating the L1 processed table.

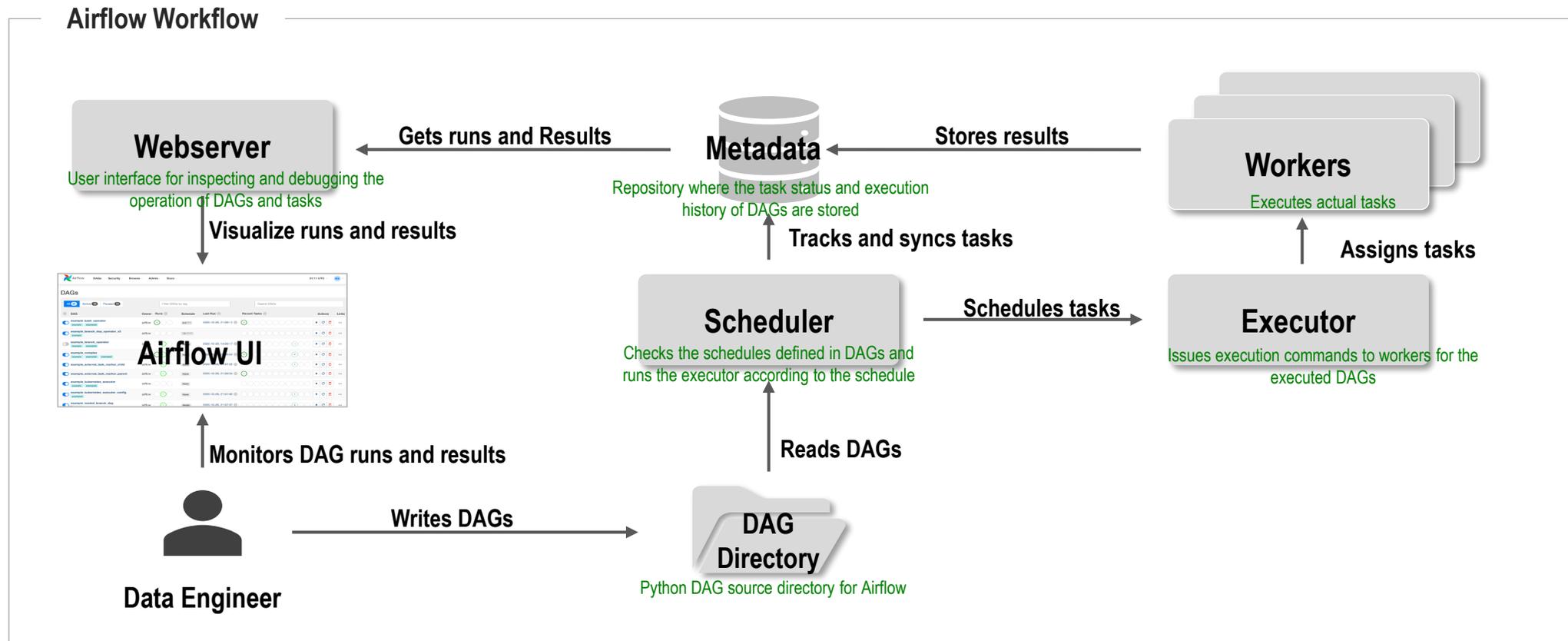
The screenshot shows the Google Cloud BigQuery interface. On the left, the Explorer pane shows a list of routines under the project 'MAGENTO_L1'. The routine 'SP_DL_CURRENCY_RATE' is selected and highlighted with a red box and a red circle labeled '1'. The main area displays the 'Stored procedure info' for 'SP_DL_CURRENCY_RATE', including its ID, creation and modification dates, language (SQL), and arguments. Below this, the 'Routine query' is shown in a code editor, also highlighted with a red box and a red circle labeled '2'. The SQL code includes comments in Korean and defines a procedure that inserts data into the 'MAGENTO_L1.DL_CURRENCY_RATE' table from a source table 'MAGENTO_DM.SP_CURRENCY_RATE_TEMP'. The code also includes an exception handler and a final update to the 'DL_INSERT_LMT' column.

- 1 Verify the L1 data, which is the first processed data from the L0 source data.
- 2 Use a procedure to create an L1 table from the L0 source data within the L1 dataset.

II. Detailed usage

1. D2C Dashboard Portal
2. Google Analytics 4
3. Sprinklr
4. Google BigQuery
- 5. Airflow**
6. Google VertexAI
7. D2C Data Help Center

Airflow is an open-source software that implements DAGs (Directed Acyclic Graphs) and executes the tasks defined in those DAGs according to a set schedule. Through the Airflow UI, users can verify that tasks are executed on schedule, receive alerts (such as emails) if errors occur during execution, check error logs, and reprocess tasks if needed. It has been introduced and utilized in our system to replace the existing crontab.



※ Permissions for Airflow can be requested through the D2C Data Help Center

The screenshot shows the Airflow web interface. At the top, there's a navigation bar with 'Airflow', 'DAGs', 'Security', 'Browse', 'Admin', and 'Docs'. A yellow warning banner states: 'The scheduler does not appear to be running. The DAGs list may not update, and new tasks will not be scheduled.' Below this, the 'DAGs' section is highlighted with a red box and a '1' in a red circle. It shows a table of DAGs with columns for DAG name, Owner, Runs, Schedule, Last Run, Recent Tasks, Actions, and Links. The 'example_bash_operator' DAG is selected, and its details are shown below, also highlighted with a red box and a '2' in a red circle. The 'Schedule' field for this DAG is '0 * * * *', which is highlighted with a red box. Below the screenshot, a code snippet is shown in a light gray box:

```
1 dag = DAG(  
2     'helloworld',  
3     default_args=default_args,  
4     description=desc,  
5     tags=["helloworld", desc],  
6     schedule_interval="0 * * * *" <-- 매시간 0분에 실행  
7 )
```

1 Defines and manages workflows using DAGs (Directed Acyclic Graphs) for workflow management

2 Supports scheduling of Airflow tasks, allowing tasks to be executed at specific intervals or based on the results of previous tasks

1 Airflow DAGs Data Profiling Browse Admin Docs 21:36 UTC

DAG: ep_demo

Graph View Tree View Task Duration Landing Times Gantt Code

```
ep_demo_1.py
1 from airflow import DAG, utils
2 from airflow.operators import BashOperator, BranchPythonOperator, DummyOperator, EmailOperator, PythonOperator
3 from datetime import date, datetime, time, timedelta
4 from ep_data_pipeline_utils import check_for_sqs_message_branch_condition, ENV, \
5   import_aggregate_lookback_days, import_airflow_start_date_as_lookback_days, \
6   import_ep_pipeline_success_email_dl, import_spark_cluster_ip, \
7   send_email_notification_flow_successful, send_sns_notification_no_spark_data, \
8   wait_for_new_data_in_db, wait_for_empty_queue
9
10
11 START_DATE = datetime.combine(datetime.today() -
12                               timedelta(int(import_airflow_start_date_as_lookback_days)),
13                               datetime.min.time())
14
15 default_args = {
16     'owner': 'sanand',
17     'depends_on_past': True,
18     'pool': 'ep_data_pipeline',
19     'start_date': START_DATE,
20     'email': [import_ep_pipeline_succ
21             ],
22     'email_on_failure': True,
23     'email_on_retry': True,
24     'retries': 3
25 }
```

2

DAG latest_only_with_trigger / Run 2024-03-24, 09:00:00 CET

Details Graph Gantt Code Audit Log

task2 success EmptyOperator

task3 skipped EmptyOperator

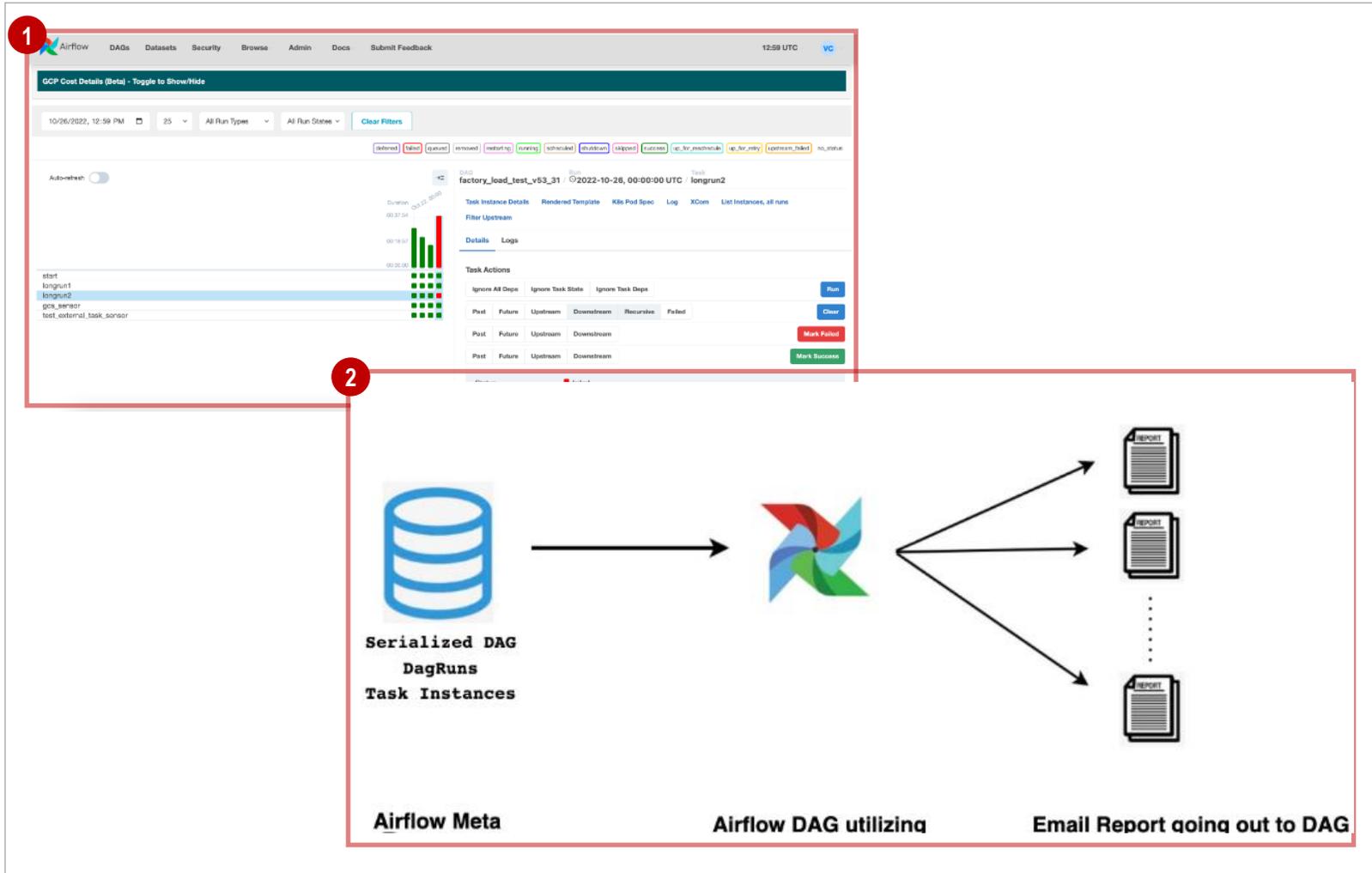
task4 success EmptyOperator

task1 skipped EmptyOperator

latest_only success LatestOnlyOperator

1 Airflow supports scheduling through Python code, enabling integration with various platforms and compatibility with different programming languages.

2 It allows for easy management of historical scheduling records within Airflow and offers scalability in scheduling.



1 Airflow facilitates easy handling of errors that occur during scheduling execution.

2 When an error occurs in Airflow, alerts can be sent via email using Alert Manager, and it can be extended to integrate with platforms like Slack for notifications.

■ dag_id Naming Convention

- Format: {Purpose}{SystemName}{BusinessDetail}{ExecutionFrequency(D/W/M)}{Number}
 - Use sufficiently abstract names to accommodate multiple tasks with dynamic mapping.
 - Choose between WF (workflow) and BAT (batch) for the purpose.
 - Refer to BigQuery naming conventions for source system and dataset for the system name.
 - If multiple systems are involved, specify all.
 - For directional tasks, use {source_system}_TO_{target_system}.
 - If separation is needed due to schedule, source format, etc., add to {BusinessArea}.
 - Business details can be multiple blocks or omitted if necessary.
 - Examples: MAIN, LOAD, MAIN_LOAD
 - Specify the DAG's frequency if applicable (e.g., 1W, 3D).
 - DAG number is a two-digit integer and can be omitted.
- Add "zz" as a prefix for test DAGs.
- File name and dag_id should be identical.

■ dag_id Examples

Dag_id	Detail
WF_L1_MAIN_LOAD	For loading data into the L1 system, check the structure: {ProjectCode}{Purpose}{SystemName}_{Action}. Omit if there's no action frequency.
BAT_GCDP_LOAD_1W_01	Weekly batch for loading data into Global CDP.

■ task_id Naming Convention

- Use snake_case for naming.
- Name using {SystemName}{TableName}{Action}.
- Exceptionally use "task_log" for log loading functions.
- For DummyOperator, a single word can be used for task_id.

■ task_id Examples

task_id	Detail
start	Only applicable to DummyOperator. Task indicating the start of a DAG.
L0_LMP__TB_MP_TERMS_TP_BAS_load	Task for loading data into the TB_MP_TERMS_TP_BAS table in the L0_LMB_dataset.
task_log	Task for logging into a meta table upon DAG completion.

■ Python Function Naming Rules

- Use only lowercase English letters and '_' for Python function names (snake_case).
- Name functions in the format: fn_{verb}_{detailed_description_of_target}_{target}.
- Function names can be of unlimited length and should accurately describe their functionality.
 - Use docstrings if you want to include names of procedures used, etc.
- Distinguish between singular and plural for targets.
- Follow pylint rules for details not specified in the guide.

■ Examples of Python Function Names

Function name	Detail
fn_call_log_processing_procedure	A function that calls a single procedure related to log data processing. Check the structure: {verb}_{detailed_description_of_target}_{target}.
fn_call_log_procedures	A function that calls multiple procedures related to log data processing. Check singular/plural distinction
fn_trigger_all_log_dags	A function related to batch processing that calls all DAGs related to logs.

■ Custom Operator Naming Rules

- Use PascalCase for naming.
- Name in the format: {Verb}{DetailedDescriptionOfTarget}{Target}Operator.
- Set the file name by converting the class name to snake_case.
- Follow function naming rules for details not specified in the guide.

■ Examples of Custom Operator Names

Operator file name	Operator name	Detail
QUERY_MYSQL_OPERATOR.py	QueryMysqlOperator	An operator that executes a query in MySQL

■ Python File Name and Operator Naming Rules within Python Source

- Use snake_case for naming.
- Use only lowercase English letters for variables and only uppercase English letters for constants.
- Consider using the Airflow variables feature before defining constants within the file.

■ SQL File Naming Rules

- Name in the format: {verb}_{description}from{system_name}_{table_name}.sql

■ Example of SQL File Name

SQL file name	Detail
select_all_from_mysql_metadb.sql	SQL script file that retrieves all necessary information from Metadb

■ Connection Hook Naming Rules

- Name in the format: {service_type}_{database_type}_{database_instance}_{owner}

■ Example of Connection Hook

SQL file name	Detail
gcp_mysql_sql-an3-oned-oned-prd-etl-1_appuser	Connection hook that connects to Metadb used in Airflow

```
"""  
BigQuery operator sample code  
"""  
-----  
from datetime import datetime, timedelta  
from airflow import DAG  
from airflow.providers.google.cloud.operators.bigquery import (BigQueryGetDatasetTablesOperator)  
from airflow.operators.python import PythonOperator  
-----  
CONNECTION_ID = "gcp-bq-t_etl_test"  
-----  
default_args = {  
    "depends_on_past": False,  
    "retries": 1,  
    "retry_delay": timedelta(minutes=5),  
}  
-----  
def fn_print_info(dataset_info):  
    print("Dataset Info: ", dataset_info)  
-----  
with DAG(  
    "zz_BIGQUERY_DAG",  
    default_args=default_args,  
    start_date=datetime(2024, 1, 1),  
    catchup=False,  
    tags=["sample"],  
) as dag:
```

1

2

3

4

5

6

- 1 Include a description of the entire DAG (pylint recommendation)
- 2 Import necessary modules
- 3 Define constants first.
Using connections as variables increases dependency without additional benefits, so use them directly
- 4 Define variables
Default_arg can be declared adjacent to the DAG definition
- 5 Define Python functions
- 6 Define the DAG

```
test_bq = BigQueryGetDatasetTablesOperator(
    task_id="get_dataset_tables",
    dataset_id="{{ var.value.TEST_DB }}",
    gcp_conn_id=CONNECTION_ID,
)
```

7

```
def process_dataset_info(**kwargs):
    """
```

A function that pulls and outputs xcom data stored by a BigQuery operator
This function is declared within the DAG as it is only used when called inside the PythonOperator“

8

```
    """
    ti = kwargs["ti"]
    dataset_info = ti.xcom_pull(task_ids="get_dataset_tables")
    fn_print_info(dataset_info)
```

```
process_dataset_info = PythonOperator(
    task_id="process_dataset_info", python_callable=process_dataset_info, dag=dag
)
```

9

```
test_bq >> process_dataset_info # pylint: disable=W0104
```

7 Define tasks

8 Functions to be passed to the `python_callable` of a `PythonOperator` can exceptionally be declared within the DAG.

- In this case, declare the function adjacent to the `PythonOperator`.

9 Define task order

Apply `pylint` disable as needed

Define at the very bottom of the file unless unavoidable due to dynamic mapping, etc.

■ Airflow variables Utilization

- Sensitive information (email, URL, table information, etc.) is managed with variables, which is airflow's own feature.
 - Utilize bulk upload on initial creation

■ Airflow variables Call

- Consider using Jinja templates first
- The more complex the logic you use, the more favorable variable.get is

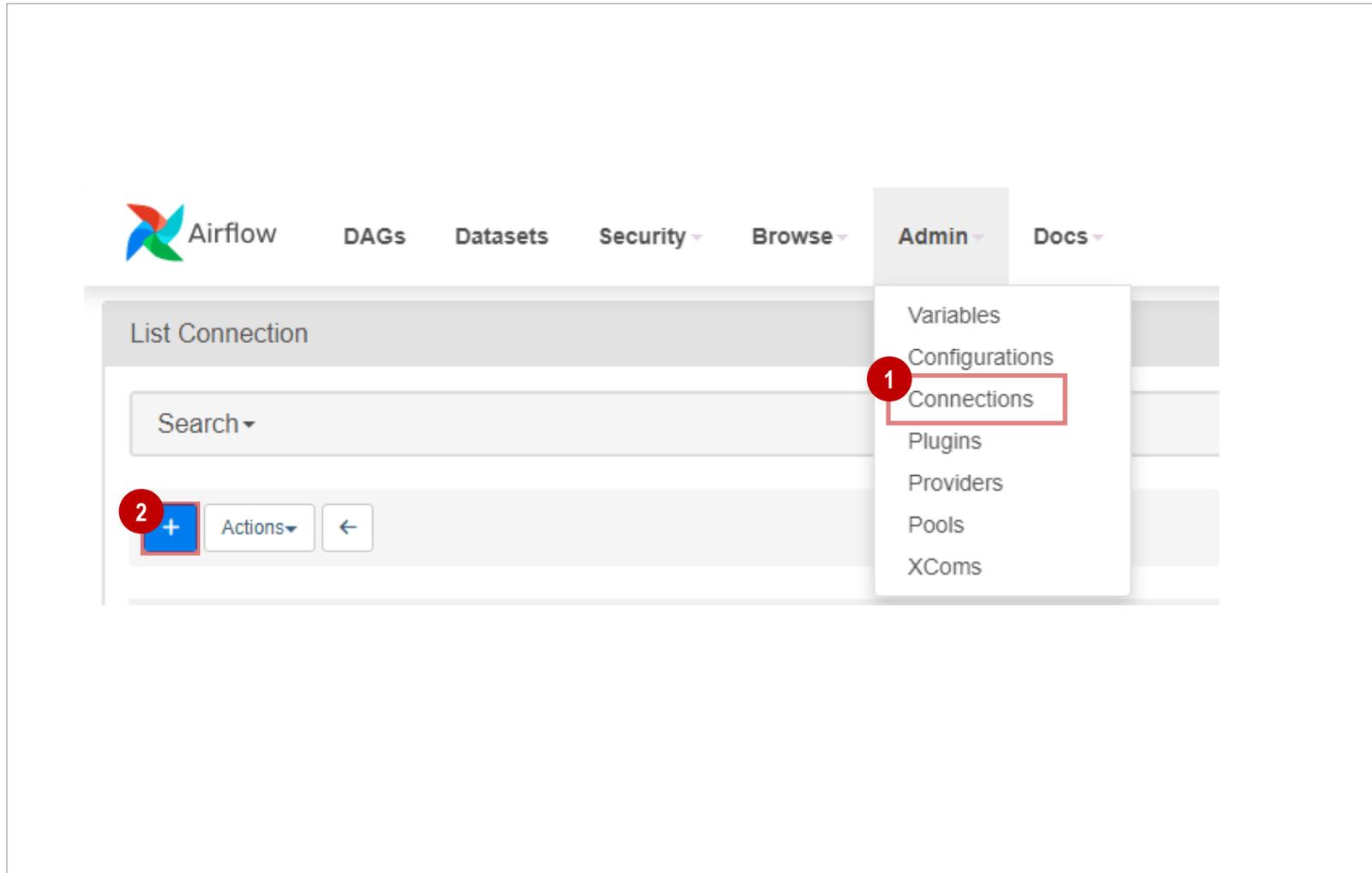
■ Airflow variables Call example

[jinja template Example]

```
test_bq = BigQueryGetDatasetTablesOperator(  
    task_id = "get_dataset_tables",  
    dataset_id = '{{ var.value.TEST_DB }}',  
    gcp_conn_id = CONNECTION_ID  
)
```

[variable.get Example]

```
from airflow.models import Variable  
  
...  
  
print(Variable.get("my_secret_var"))  
print(Variable.get("my_string_var"))  
print(Variable.get("my_json_var"))
```



- 1 Navigate to the new Connection menu through the Connections in the Admin menu.
※ When using security information such as GCP credentials, it is recommended to use Connections for linking.
- 2 Move to the new Connections setup window by clicking the '+' button.

The screenshot shows the 'Add Connection' form in the Airflow web interface. The form includes the following fields:

- Connection Id ***: A text input field highlighted with a red circle and the number 1.
- Connection Type ***: A dropdown menu with 'Google Cloud' selected, highlighted with a red circle and the number 2. A tooltip below it reads: 'Connection Type missing? Make sure you've installed the corresponding Airflow Provider Package.'
- Description**: A text area.
- Project Id**: A text input field highlighted with a red circle and the number 3.
- Keyfile Path**: A text input field.
- Keyfile JSON**: A text input field highlighted with a red circle and the number 4.
- Credential Configuration File**: A text input field.
- Scopes (comma separated)**: A text input field.
- Keyfile Secret Name (in GCP Secret Manager)**: A text input field.
- Keyfile Secret Project Id (in GCP Secret Manager)**: A text input field.
- Number of Retries**: A text input field with the value '5'.

At the bottom of the form, there are three buttons: 'Save' (highlighted with a red circle and the number 5), 'Test', and a back arrow.

- 1 Enter the connection ID according to the naming convention.
- 2 Enter the project ID (pjt-lge-oned-dev, pjt-lge-oned)
- 3 Set the Connection Type to Google Cloud
- 4 Request permission from TA to generate the keyfile, then directly enter it in the Keyfile JSON field
- 5 Click Save to store the settings.

■ Using Operators

- All tasks are written based on operators, and the taskflow API is not used.
- If a provided common operator is available, consider using it first.
- If there is no suitable operator, implement and use a Python operator.
- Actively use dynamic DAG and dynamic task mapping for repetitive tasks.

■ List of Operators

Operator Name	Function	Custom operator
PythonOperator	Executes a Python function	X
DummyOperator	An operator that does nothing. Used to indicate the start and end of a DAG or to set dependencies.	X
TriggerDagRunOperator	An operator that executes another DAG. Used to set dependencies between DAGs.	X
QueryMysqlOperator	Executes by receiving a connection name and SQL file name.	O
InterClusterDagTriggerOperator	Triggers a DAG in another cluster using the REST API method.	O

■ Custom operator

- For features that are used repeatedly, consider implementing modules and operators.
- Prioritize packaging as an operator, except for simple tasks like formatting and parsing.
- Define a class that inherits from BaseOperator, then define the init function and the execute function.
- In the execute function, pass data to xcom through return.
- Store the custom operator you created in /apps/gcdp/common, following the file naming conventions.

```
class QueryMysqlOperator(BaseOperator):  
  
    def __init__(self, mysql_conn_id, sql_filepath, params=None, *args, **kwargs):  
        """  
        QueryMysqlOperator 생성자  
        """  
        super().__init__(*args, **kwargs)  
        self.mysql_conn_id = mysql_conn_id  
        self.sql_filepath = sql_filepath  
        self.params = params  
  
    def execute(self, context):  
        """  
        QueryMysqlOperator 작업 로직  
        """  
        mysql_hook = MySqlHook(mysql_conn_id=self.mysql_conn_id)  
        filepath = os.path.join(  
            os.path.dirname(__file__), f"../sql/{self.sql_filepath}")  
        )  
        sql = read_sql_file(filepath)  
        template = Template(sql)  
        rendered_sql = template.render(context, params = self.params)  
        result = mysql_hook.get_records(sql=rendered_sql)  
  
        return result
```

■ Using SQL

- Consider using procedure calls rather than sending direct queries.
- It is recommended to use the MySQL operator.
 - If implementation is unavoidable, place the SQL files in the SQL directory and implement them to be called dynamically.
 - Preferably use the connectors provided by Airflow.

```
from gcdp.common.query_mysql_operator import QueryMySQLOperator
from jinja2 import Template

MYSQL_CONN_ID = "gcp_mysql_sql-an3-oned-oned-prd-etl-1_appuser"

...

select_with_operator = QueryMySQLOperator(
    mysql_conn_id=MYSQL_CONN_ID,
    sql_filepath="sql_select_all.sql",
    task_id="select_with_custom",
    params={ 'value': 'asdf' },
)
```

- Consider using procedure calls rather than sending direct queries.
- It is recommended to use the MySQL operator.
 - If implementation is unavoidable, place the SQL files in the SQL directory and implement them to be called dynamically.
 - Preferably use the connectors provided by Airflow.

```
SELECT * FROM test WHERE VALUE = '{{ params.value }}';
```

■ Passing Variables Between Tasks - xcom

- Use the method of writing variables to the Meta database and then reading those variables from another task.
- Use the method of calling ti (task_instance) from kwargs as shown below.
 - The variable task_id is the id of the task that provided the xcom.

```
def print_result(**kwargs):  
    ti = kwargs["ti"]  
    dataset_info = ti.xcom_pull(task_ids="select_with_custom")  
    print("Dataset Info: ", dataset_info)  
  
print_result = PythonOperator(  
    task_id="print_result", python_callable=print_result, dag=dag  
)
```

■ DAG Trigger Between Clusters

- It is recommended to use the REST API method for triggering DAGs between clusters rather than using touch files or DB variables.
 - In this case, the DAG to be triggered must be in an unpaused state.
 - Firewall rules between Airflow clusters need to be adjusted.
- Consider using InterClusterDagTriggerOperator.

```
trigger_dag = InterClusterDagTriggerOperator(  
    task_id="trigger_dag",  
    url=URL,  
    user=USER,  
    password=PASSWORD,  
    targetDag=DAG_ID,  
    dag=dag,  
)
```

■ dynamic task mapping

- Syntax for Repeatedly Calling an Operator with Different Variables
- Fixed to a single task_id

```
class AddOneOperator(BaseOperator):
    """A custom operator that adds one to the input."""

    def __init__(self, value, **kwargs):
        super().__init__(**kwargs)
        self.value = value

    def execute(self, context):
        return self.value + 1

with DAG(
    dag_id="example_dynamic_task_mapping_with_no_taskflow_operators",
    start_date=datetime(2022, 3, 4),
    catchup=False,
):
    # map the task to a list of values
    add_one_task = AddOneOperator.partial(task_id="add_one").expand(value=[1, 2, 3])
```

■ dynamic dag

- Syntax for Calling Different Operators Based on the State of a Variable

```
deployment = os.environ.get("DEPLOYMENT", "PROD")
if deployment == "PROD":
    task = Operator(param="prod-param")
elif deployment == "DEV":
    task = Operator(param="dev-param")
```

■ Specifying Local File Paths

- It is recommended to use relative paths.
- If an absolute path is necessary, use `/opt/airflow/dags/gcdp/etc.` instead of `/apps/dags/gcdp/etc.`
 - Consider the mount path between the OS and Docker (`/apps/dags:/opt/airflow/dags` for mounting).
 - Whenever possible, use variables, connections, and custom operators to ensure paths do not appear in source files.

■ Importing Local Files

- Files to be imported should be uploaded to the server via the common-utils repo by default.
- Import in the form of `from common.{operators,utils}{file_name} import {function}`.

■ Specifying Retries

- For high availability, specify 3 retries in the DAG default arguments.

■ Logging Rules

- Output necessary logs using the Python logger.
- Use the `%s` method for variables.

```
logging.error("Error Call log Message : %s", e)
```

[Reference] Airflow Main Server and Open Port List

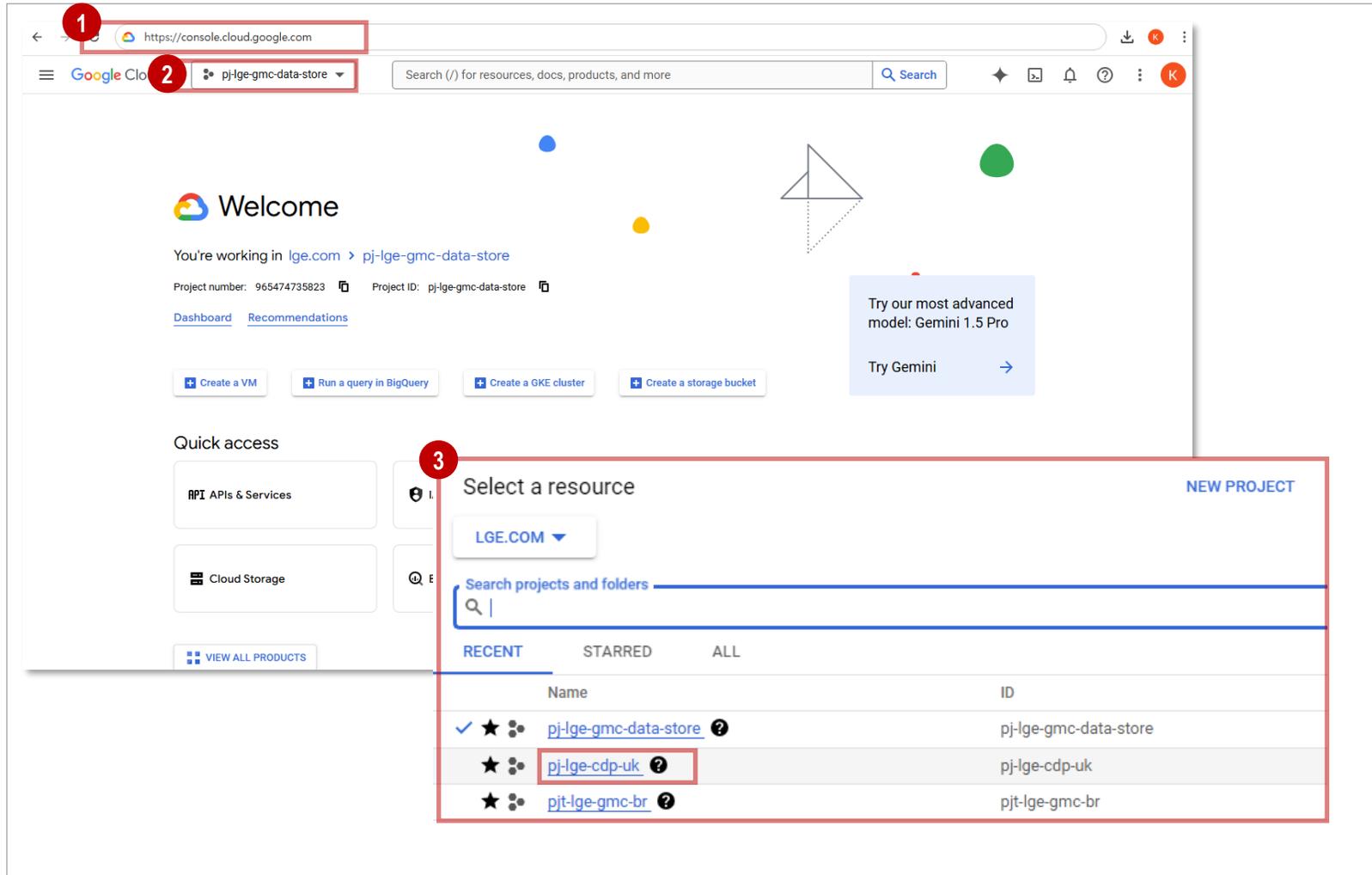
#	Server (GCE) Name	IP	SW/Container	Port	Purpose
pjt-lge-oned	ce-an3-oned-oned-prd-bastion-1	10.182.33.89	OpenSSH	2022	Direct Access to Bastion Host SSH access to the production Airflow server is possible through the Bastion.
pjt-lge-oned	ce-an3-oned-oned-prd-etl-1	10.182.33.90	ce-an3-oned-oned-prd-etl-web-1	8080	Airflow Web Server
pjt-lge-oned	ce-an3-oned-oned-prd-etl-1	10.182.33.90	ce-an3-oned-oned-prd-etl-flower-1	5555	Web Server for Airflow Flower Web service for health checks of related resources
pjt-lge-oned	ce-an3-oned-oned-prd-etl-2	10.182.33.91	ce-an3-oned-oned-prd-etl-web-1	8080	Airflow Web Server
pjt-lge-oned	ce-an3-oned-oned-prd-etl-2	10.182.33.91	ce-an3-oned-oned-prd-etl-flower-1	5555	Web Server for Airflow Flower Web service for health checks of related resources
pjt-lge-oned	ce-an3-oned-oned-prd-etl-3	10.182.33.92	ce-an3-oned-oned-prd-etl-web-1	8080	Airflow Web Server
pjt-lge-oned	ce-an3-oned-oned-prd-etl-3	10.182.33.92	ce-an3-oned-oned-prd-etl-flower-1	5555	Web Server for Airflow Flower Web service for health checks of related resources
pjt-lge-oned	ce-an3-oned-oned-prd-gitlab-1	10.182.33.100	ce-an3-oned-oned-prd-etl-gitlab-1	8080	GitLab Server Source repository and CI/CD server
pjt-lge-oned-dev	ce-an3-oned-oned-dev-bastion-1	10.182.49.117	OpenSSH	2022	Direct Access to Bastion Host SSH access to the development Airflow server is possible through the Bastion.
pjt-lge-oned-dev	ce-an3-oned-oned-dev-etl-1	10.182.49.118	ce-an3-oned-oned-prd-etl-web-1	8080	Airflow Web Server
pjt-lge-oned-dev	ce-an3-oned-oned-dev-etl-1	10.182.49.118	ce-an3-oned-oned-prd-etl-flower-1	5555	Web Server for Airflow Flower Web service for health checks of related resources

II. Detailed usage

1. D2C Dashboard Portal
2. Google Analytics 4
3. Sprinklr
4. Google BigQuery
5. Airflow
- 6. Google VertexAI**
7. D2C Data Help Center

How to Access Google Vertex AI

※ Google Vertex AI access is granted only to DS and DE members of the Data Insights Team. Other users should inquire through the Data Help Center if they wish to request access.



1 Access the Google Cloud Console.

* <https://console.cloud.google.com>

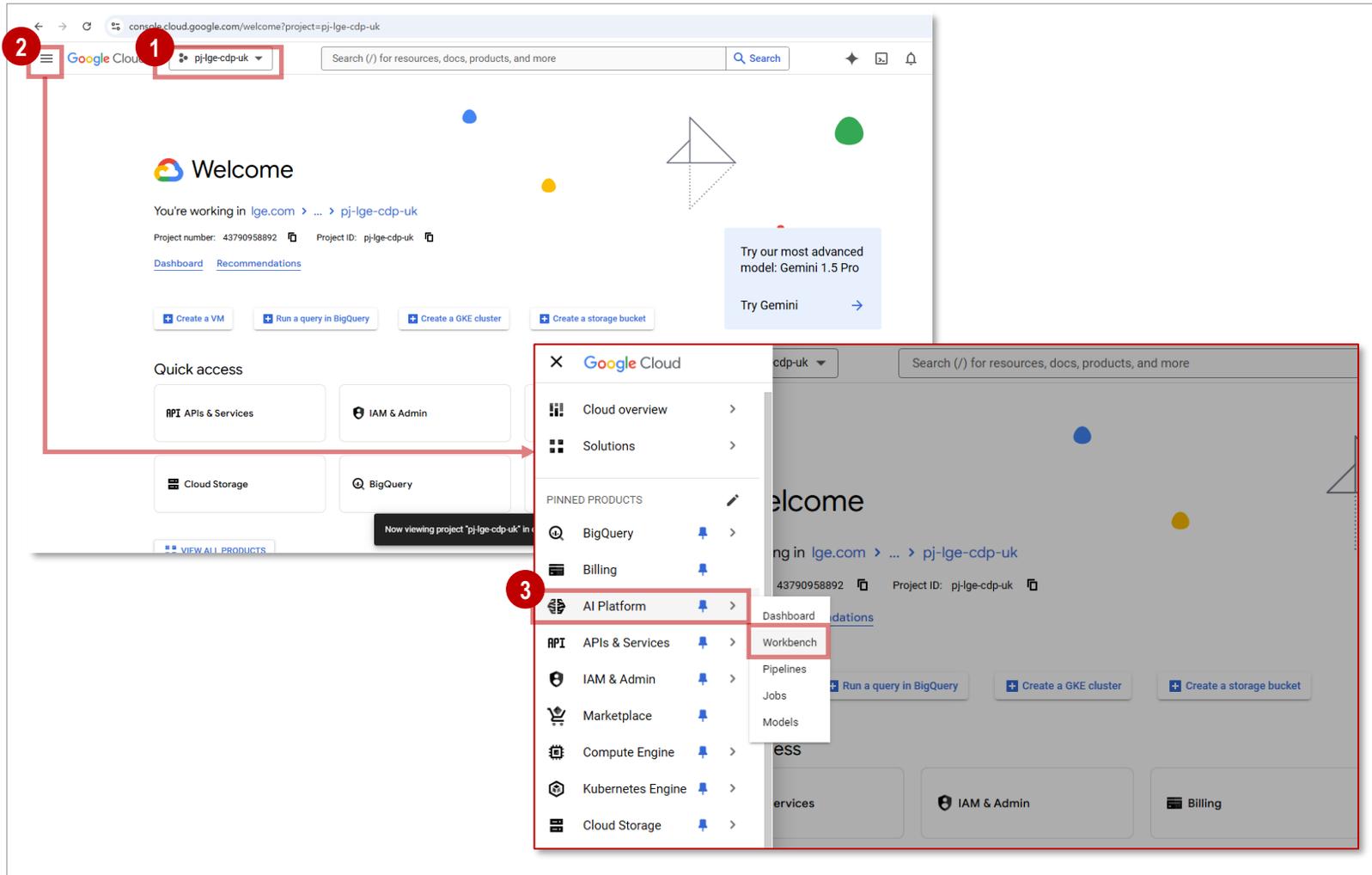
* The ID and password are the same as your AD ID (Cloud PC).

2 Check if the currently set Google Cloud Platform project is the one that has Vertex AI assigned.

3 If it is different from the Vertex AI project, press 2 and select the project that contains Vertex AI.

Example: pj-lge-cdp-uk

How to Access Google Vertex AI

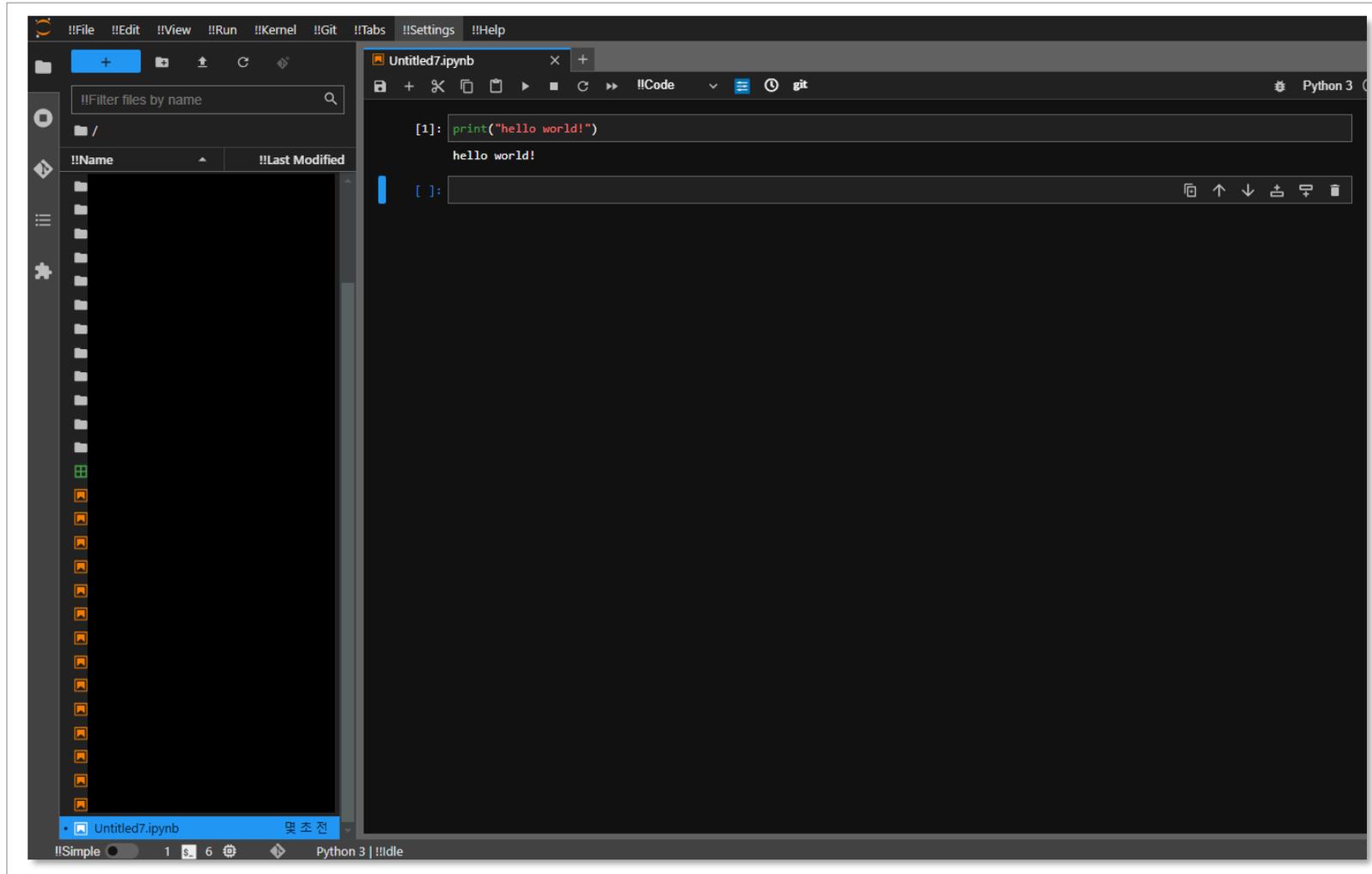


- 1 Ensure that the Vertex AI project is selected.
Example: Confirm the change to pj-lge-cdp-uk.
- 2 Click the top left ☰ to bring up the navigation menu.
- 3 Select AI Platform > Workbench.

The screenshot shows the Google Cloud Workbench interface. In the top navigation bar, the user is logged in as 'pj-lge-cdp-uk'. The 'Workbench' section is active, with tabs for 'INSTANCES', 'EXECUTIONS', and 'SCHEDULES'. Under the 'INSTANCES' tab, there are three view options: 'INSTANCES', 'USER-MANAGED NOTEBOOKS', and 'MANAGED NOTEBOOKS'. A red circle with the number '1' highlights the 'USER-MANAGED NOTEBOOKS' tab. Below this, a table lists instances. A red arrow points from the 'USER-MANAGED NOTEBOOKS' tab to a table of notebooks. This table has columns for 'Notebook name', 'Zone', 'Auto upgrade', 'Environment', 'Machine Type', and 'GPUs'. A red circle with the number '2' highlights the 'OPEN JUPYTERLAB' button in the 'Notebook name' column of the first row. The notebook name in that row is 'vm-an3-cdp-uk-r-analytis-v2'.

Notebook name	Zone	Auto upgrade	Environment	Machine Type	GPUs
vm-an3-cdp-uk-r-analytis-v2	asia-northeast3-b				
	asia-northeast3-a				
	asia-northeast3-a				
	asia-northeast3-b				
	asia-northeast3-a				
	asia-northeast3-b				

- 1 In the View tab, select USER-MANAGED NOTEBOOKS.
- 2 Check the name of the assigned Vertex AI and select OPEN JUPYTERLAB.



- 1 Proceed with the desired tasks in the Jupyter Lab environment.

II. Detailed usage

1. D2C Dashboard Portal
2. Google Analytics 4
3. Sprinklr
4. Google BigQuery
5. Airflow
6. Google VertexAI
7. [D2C Data Help Center](#)

The D2C Data Help Center provides integrated, prompt, and accurate responses to inquiries related to data analysis, verification, and related solutions to support LG Electronics employees in utilizing D2C data.



1:1 Chat/Video Consultation

- Provides services for immediate assistance with data utilization, such as query writing, data extraction, analysis, and using the D2C dashboard, through real-time chat with professional consultation.
- Webex/remote control services are provided when a clear consultation is needed.

* Operating hours: 07:00 ~ 25:00 (KST)

AI Chatbot

- For simple questions such as terminology explanations, KPI and its calculation logic, and solution accessibility guidance, a chatbot provides real-time answers.
- If it cannot provide an appropriate answer, it guides users to connect with a consultant or the Q&A Board for support.



Q&A Board

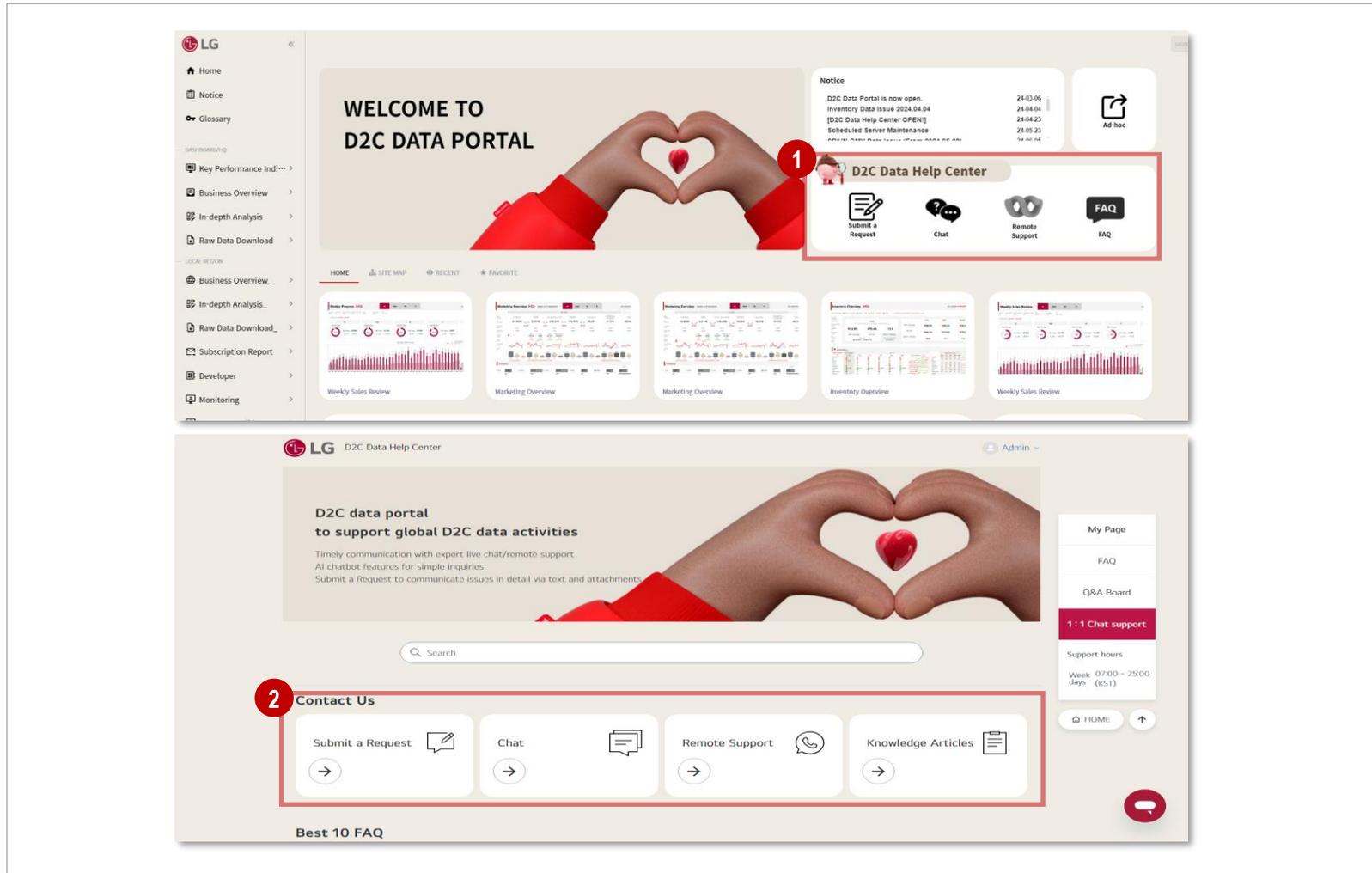
- For inquiries that require more time, such as technical issues needing support from experts in analysis, tagging, and the DI team/headquarters (HQ), consultations are conducted via the Q&A Board.

D2C Knowledge Documents

- Access to all articles that have been documented based on the evaluation of importance, usefulness, and frequency of requests received through the D2C Data Help Center.

How to Access D2C Data Help Center Services

7. D2C Data Help Center



1 <https://d2cglobalmarketing.lge.com/portal/user/main>
Accessible through the menu on the D2C Dashboard Portal.

2 <https://lge5422.zendesk.com/hc>
Available on the dedicated D2C Data Help Center page, where users can access Knowledge Articles such as FAQs, manuals, guides, and a D2C glossary.

- ✘ The D2C Data Help Center requires an EP account for access. If you have an EP account, login is automatically executed through SSO integration..
- ✘ Even if you do not have an EP account (e.g., partners), real-time chat and chatbot services are available.

Submit a request

Subject

1

Request Type

Data Extract

Request Form (optional)

2

Data Extract

If you need a specific request form, please select it.

Request Summary (optional)

※ 한국어, 또는 영어로 작성 부탁드립니다. / Please write in Korean or English.

- Dashboard Name : Products Funnel
- Target Country : Japan
- Analysis Period : 2024-04-01-2024-04-30
- Data Period Unit : Month

Subject

how to download |

Suggested articles

- How to download raw data?
- What is the source of 'transaction' traffic data from Raw Data Download
- How to unsubscribe
- Where can I find OSM data?

Paragraph

B I [Icons]

Please enter the details of your request. A member of our support staff will respond as soon as possible.

Priority (optional)

-

3

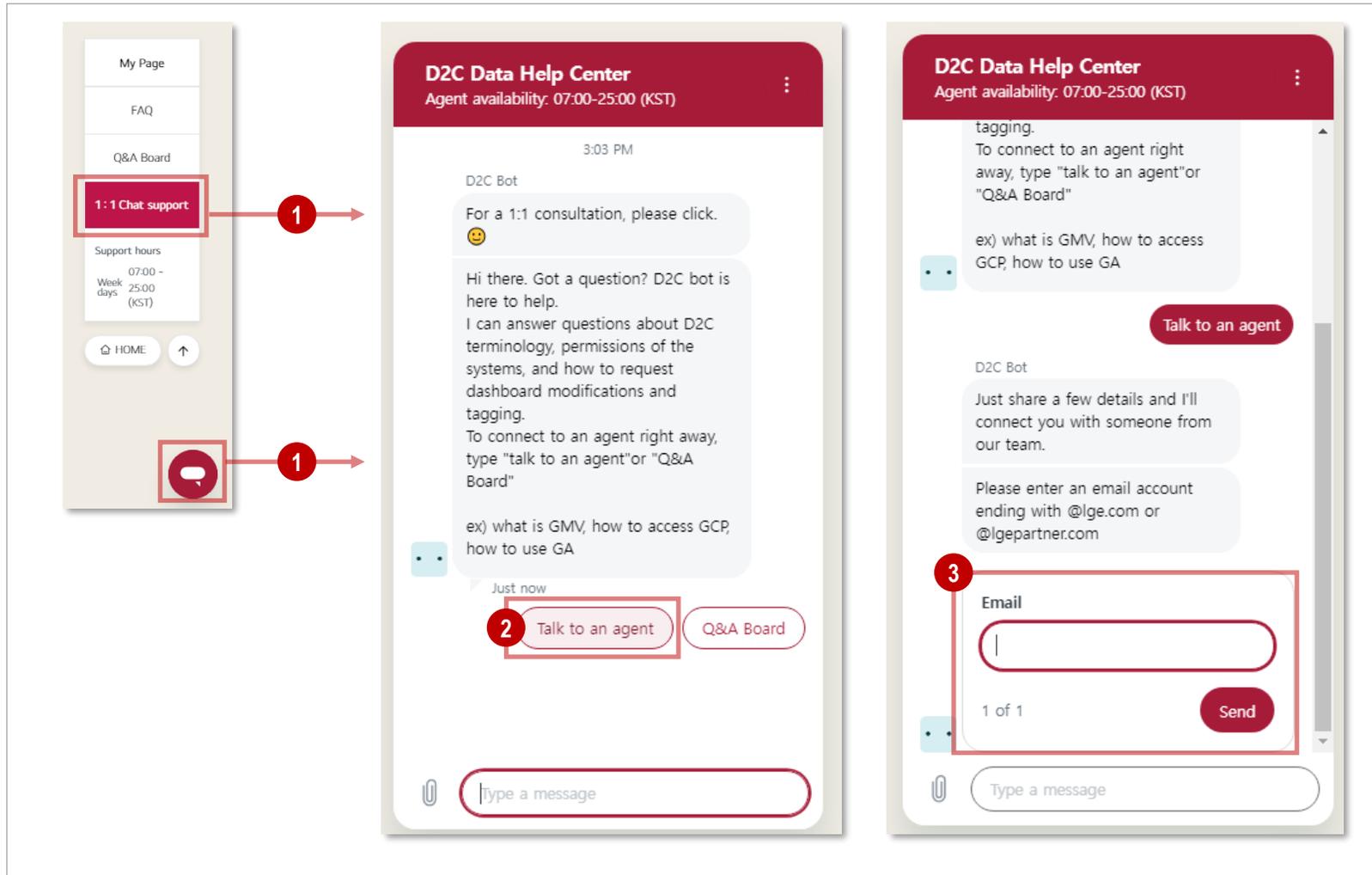
Attachments (optional)

Add file or drop files here

Submit

- 1 When writing a request title, related Knowledge Articles are recommended, and clicking on them will take you to the respective Article.
- 2 If necessary, select the Request Form and write the request details according to the automatically generated Form in the Request Summary.

※ Writing according to the form can minimize additional communication needed to clarify the request.
- 3 If necessary, you can attach files to provide detailed information about the request.

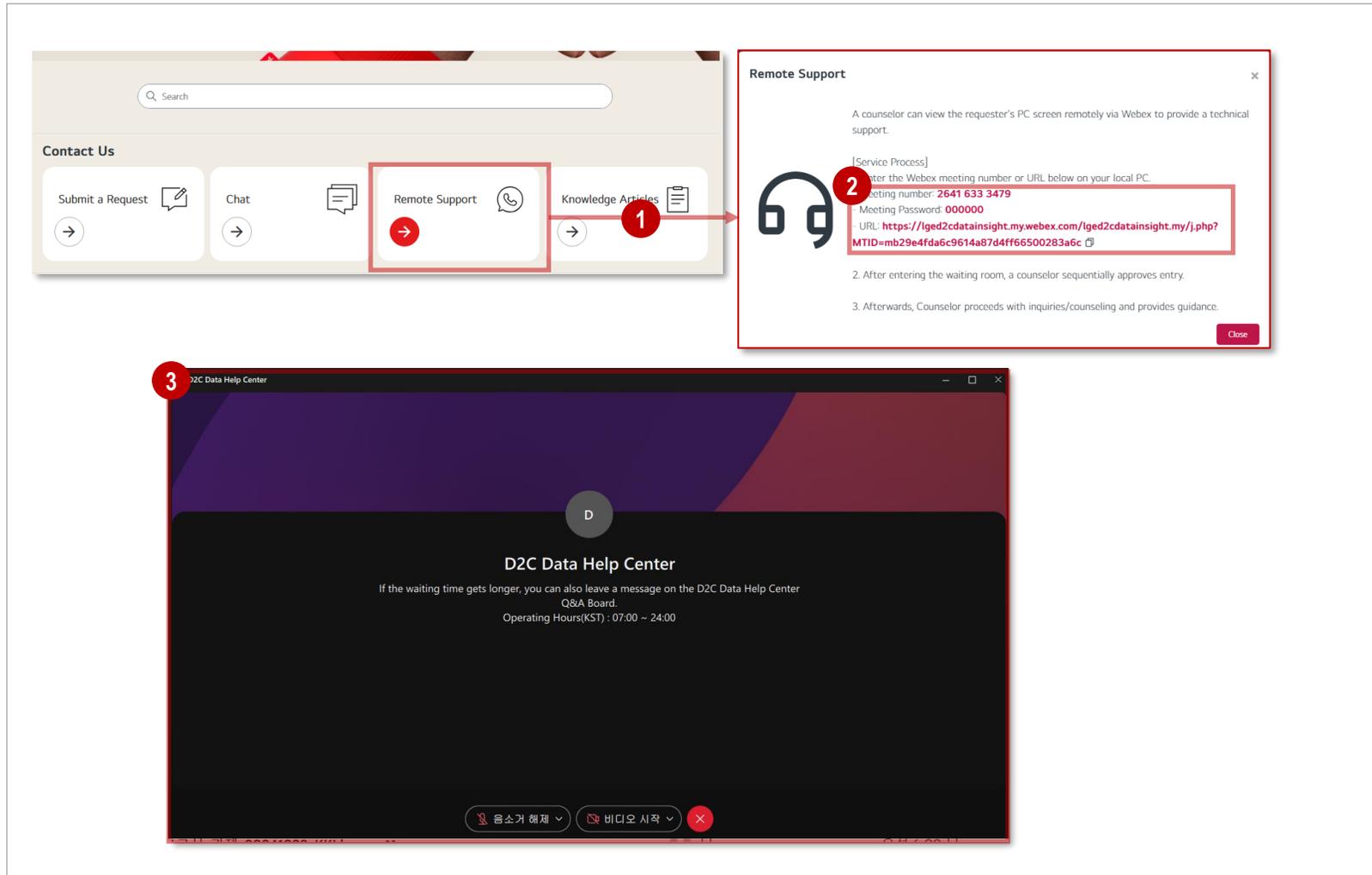


1 Activate the chat window by clicking on 1:1 Chat support in the Help Center Portal or the widget at the bottom right corner.

2 Ask the chatbot for the necessary information or connect to an agent by clicking the "Talk to an Agent" button.

3 Enter your email information for employee verification before starting the consultation.

※ 1:1 consultations are available on weekdays from 07:00 to 25:00 (KST). If there are many requests, responses may be delayed. In such cases, please use the Q&A board.



1 Clicking the Remote Support icon in Dashboard Portal, or Help Center provides Webex meeting information for participation.

[Meeting Room Information]

- Meeting number: 2641 633 3479
- Meeting Password: 000000
- URL:
<https://lged2cdatainsight.my.webex.com/lged2cdatainsight.my/j.php?MTID=mb29e4fda6c9614a87d4ff66500283a6c>

2 Use the provided Webex meeting information to access Webex from your local PC.

3 Upon connection, you will be automatically moved to the lobby, and consultations will begin sequentially after the previous one ends.

The screenshot illustrates the process of navigating to knowledge articles. It shows a 'Contact Us' section with a 'Knowledge Articles' icon highlighted by a red box and a red arrow labeled '1'. Below this, a breadcrumb trail 'D2C Data Help Center > Category > Manual / Guide > GA' is shown, with 'GA' highlighted by a red box and a red arrow labeled '2'. The main content area displays a table of GA-related articles.

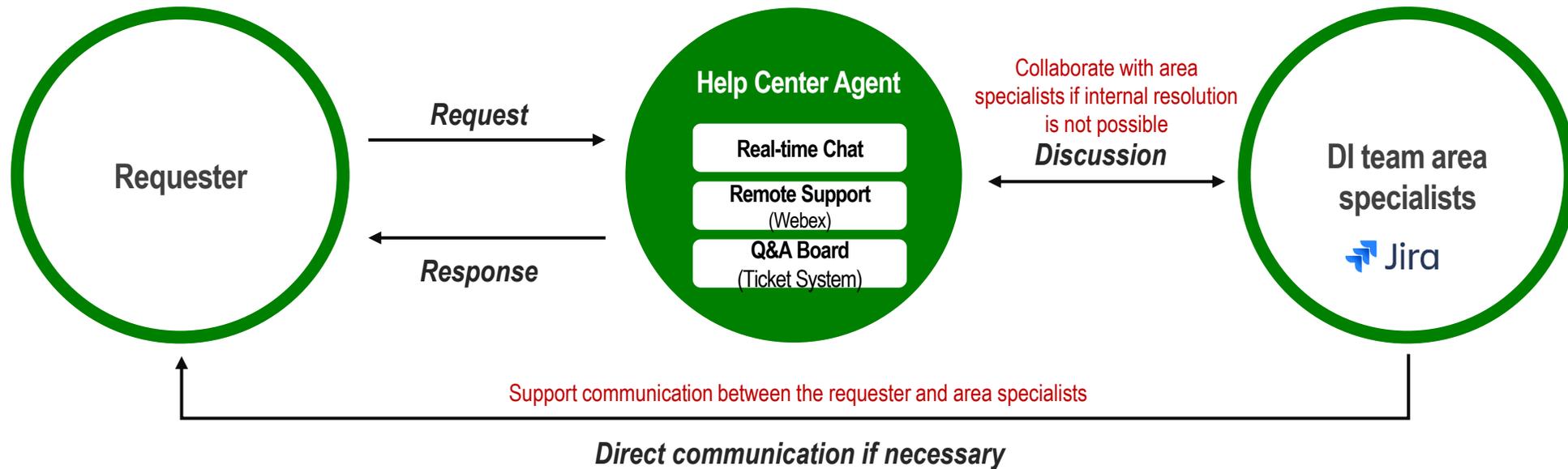
No.	Title	Author	Created
1	★ Request GA4 Access	Min Young Kim	March 5, 2024
2	Generate GA4 Audience	Min Young Kim	August 27, 2024
3	Tagging GA Marketing and Solutions (3rd Party)	Sean Kang	March 27, 2024
4	GA Additional tagging requests accepted	Sean Kang	March 27, 2024
5	GA4 Structure	Sean Kang	March 26, 2024
6	GA Tagging Strategy & Governance	Sean Kang	March 26, 2024

1 Clicking the Knowledge Articles icon in Dashboard Portal, or Help Center allows you to view a list of documents.

2 You can freely browse the desired documents using the top directory structure and search bar.

Utilize accumulated know-how to immediately address employee requests that can be resolved internally.

For requests that require extended time or expert insight, collaborate with DI team specialists in each area to resolve them.



The Data Help Center supports a variety of data tasks, from simple inquiries to dashboard creation/modification and data analysis/extraction.

If you encounter difficulties in utilizing data, please use the Data Help Center first.

Type	Detailed Type	Example of Request Content
Simple Inquiries	How to use	<ul style="list-style-type: none"> How to check detailed sales data for January 13 in Brazil
	Data location	<ul style="list-style-type: none"> Inquiry about the location of information on LGECB (Colombia) OBS operations
	Definition of metrics	<ul style="list-style-type: none"> Classification criteria for H&A, HE, and IT in GA Definition and calculation method of SKU and ISA
	System utilization-related	<ul style="list-style-type: none"> Granting system access permissions to XXX users
Dashboard Requests	Add Dashboard Filters	<ul style="list-style-type: none"> Request to add filters for Region, Subsidiary, Traffic Channel Add Delivery Leadtime filter to the LMDS system
	Delete/Add Specific Model	<ul style="list-style-type: none"> Request to exclude model 24BK55YP+BEK when counting SKUs Add country to Amazon VC Overview
	Modify Columns	<ul style="list-style-type: none"> Request to add TTL for HE, HA, IT in Egypt and Saudi Arabia
	Add New View	<ul style="list-style-type: none"> Add Hero Banner usage dashboard Request for HA Finder dashboard
Data Consistency Check	Missing Data Correction	<ul style="list-style-type: none"> Investigate missing NMV amounts from October 18-23. Missing D2C OBS sales data for all provinces in Saudi Arabia
	Data Anomaly Review	<ul style="list-style-type: none"> Review data consistency for unsellable models. Check data anomalies in UK sessions and PDP views.

Type	Detailed Type	Example of Request Content
Data Analysis Request	Analysis Consultation	<ul style="list-style-type: none"> What analysis topics are available related to payment, and what procedures should be followed?
	Analysis Request	<ul style="list-style-type: none"> Analyze sudden TV inventory changes Analyze low completion rates in Italy HE OBS 3-step checkout
GA4 Tagging Request	Tagging Request	<ul style="list-style-type: none"> Missing payment_info parameter in the purchase event Adjust purchase timing → Modify purchase variable
	Analysis Request	<ul style="list-style-type: none"> Analyze sudden TV inventory changes Analyze sudden increase in week 43 canceled orders for Saudi Arabia and Egypt
Data Extraction	Dashboard Data Request	<ul style="list-style-type: none"> Request to extract promotion banners for Indonesia, Mexico, Colombia, and Brazil Inquiry on data extraction for webOS for Smart TV
Solution Inquiry	Sprinklr Inquiry	<ul style="list-style-type: none"> Partner account application Request to create a Sprinklr topic - Brand Category Campaign Request for training on Sprinklr usage
	Beusable Inquiry	<ul style="list-style-type: none"> New account application Request to set up a heatmap for the lg.com Global main pager

D2C Data Help Center– Use Case

[Use Case #1] Guide to Using a Dashboard through Chatting

Understand the request

D2C Data Help Center

Agent availability: 07:00 ~ 24:00 (KST)

Agent

Hello. This is an agent from D2C data help center. How may I assist you today?

How can I export the Top N model data from the Products Funnel into Excel, including a list of all items with multiple images?

 Screenshot_0281.jpg

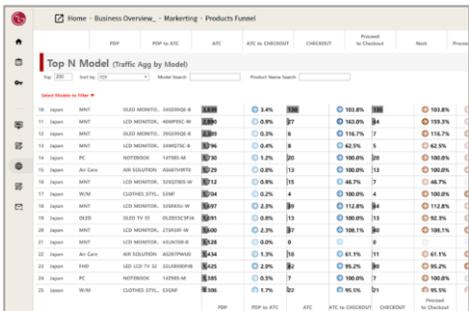
Agent

Okay. First, Let me check the dashboard you are looking at quickly and I will get back to you shortly with an answer.

Agent

Do you have specific time period for this data

example 2024/4/1-2024/4/30



Rank	Model	Category	Product Name	Percentage	Count	Percentage	Count
10	MANU	READY MONITOR	READYMON-0	3.4%	103.0%	103.0%	103.0%
11	MANU	LCD MONITOR	MONIT000-0	0.9%	27	118.7%	118.7%
12	MANU	READY MONITOR	READYMON-0	0.9%	4	118.7%	118.7%
13	MANU	LCD MONITOR	MONIT000-0	0.9%	8	42.3%	42.3%
14	MANU	PC	NOTEPAD000-14285-04	1.2%	38	100.0%	100.0%
15	MANU	AIK Case	AIK SOLUTION	0.0%	13	100.0%	100.0%
16	MANU	LCD MONITOR	MONIT000-0	0.9%	15	48.7%	48.7%
17	MANU	WEAR	CLOTHES 07FL	0.2%	4	100.0%	100.0%
18	MANU	LCD MONITOR	MONIT000-0	2.2%	69	112.0%	112.0%
19	MANU	READY TV 00	SUBSCRIP00-0	0.0%	13	100.0%	100.0%
20	MANU	LCD MONITOR	MONIT000-0	2.2%	69	108.1%	108.1%
21	MANU	LCD MONITOR	MONIT000-0	0.0%	0	0	0
22	MANU	AIK Case	AIK SOLUTION	1.3%	40	83.3%	83.3%
23	MANU	FRIG	REF 000 TV 02	2.0%	62	95.4%	95.4%
24	MANU	PC	NOTEPAD000-14285-04	0.0%	7	100.0%	100.0%
25	MANU	WEAR	CLOTHES 07FL	1.7%	52	95.9%	95.9%

Checking the Dashboard Content for Clear Understanding of the Request Details

Answer provided

D2C Data Help Center

Agent availability: 07:00 ~ 24:00 (KST)

Agent

Would you like me to download and share the file, or should I explain how to download it?

Is it possible to output this data by specifying the period myself?

Agent

Sure, There is a button 'Cross Tab' in top right corner. After you click 'crosstab', and you choose either excel or csv format whichever you prefer. Then click 'Download'

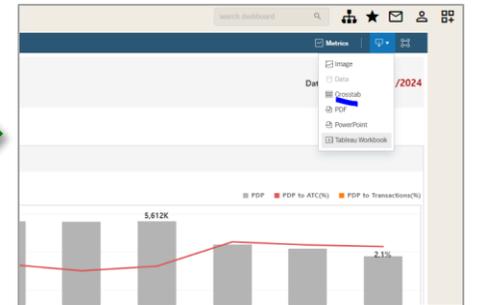
 Dashboard Screenshot_0531.jpg

Thank you I was able to download it.

Agent

My pleasure.

Is there any additional question for me? If there is not, I will close this chat. Thank you.



Guide Screen Sharing for Resolving Request Content

D2C Data Help Center– Use Case

[Use Case #2] Guide to Using a Dashboard through Webex

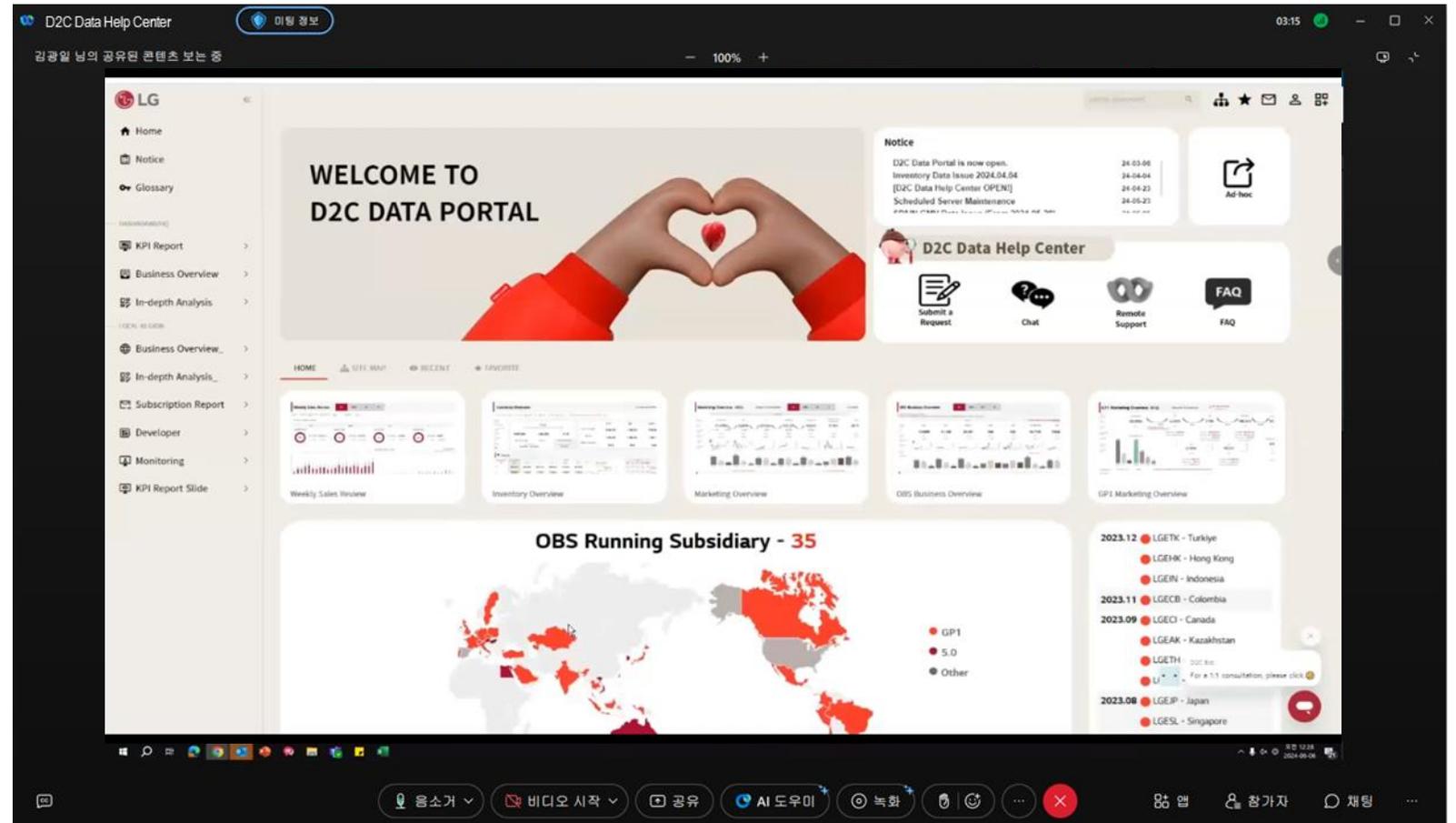
Guide to Using the Webex Remote Control Feature

Request

Chat / Webex Dashboard Request

How to extract data for the TOP N Model from the Product funnel in the D2C Data Portal for the Japan Corporation?

- Inquiry on Self-Extraction Method for Dashboard Data
- Explanation through text and screenshots via realtime-chat
- For accurate feature description, request **remote control** of the requester's screen via Webex



D2C Data Help Center– Use Case

[Use Case #3] Modify existing dashboard logic

Request

Q&A Board

Dashboard Request

Exclude divisions not involved in OBS business from each subsidiary on the SKU & ISA dashboard.

[Background]

- A certain DIVISIONS are not engaged in OBS sales but are included in the data metric (re. SKU & ISA), which is distorting the relevant KPIs

Task & Activity

Issue Define

Change of data logic and Check data integrity

Implementation on the dashboard

Select Category	SKU Coverage	ISA (%)
LTV	57.1%	58.6%
REF	53.7%	55.2%
W/M	80.3%	60.0%
MNT	78.0%	40.0%
Air Care	100.0%	0.0%
AV	66.7%	35.8%
Cooking	68.6%	39.3%
Dishwasher	100.0%	45.6%
PC	66.7%	0.0%
RAC BD	24.8%	58.4%
Water Purifier	54.5%	0.0%

	2024/4/1	2024/4/2	2024/4/3	2024/4/4	2024/4/5	2024/4/6
A09FT	0%	0%	0%	0%	0%	0%
A12FT	0%	0%	0%	0%	0%	0%
AB09BK	0%	0%	0%	0%	0%	0%
AB12BK	0%	0%	0%	0%	0%	0%
AB18BK	0%	0%	0%	0%	0%	0%
AB24BK	0%	0%	0%	0%	0%	0%
AC09BK	0%	0%	0%	0%	0%	0%
AC12BK	0%	0%	0%	0%	0%	0%
AC18BK	0%	0%	0%	0%	0%	0%
AC24BK	0%	0%	0%	0%	0%	0%
AP09BK	0%	0%	0%	0%	0%	0%

WH	20	20	20			
Category	Air Care	Audio(AV)	DW(Dishwasher)	LTV		
Locat						
GU						
GU						
DE						
DE						
LU						
LU						
GHA	AJH	Noida	Y	N	N	N
GHA	AZD	Pune	Y	Y	Y	Y

Select Category	SKU Coverage	ISA (%)
LTV	57.1%	94.7%
REF	53.8%	83.8%
W/M	80.3%	92.4%
MNT	78.0%	40.0%
Air Care	100.0%	15.0%
Cooking	68.6%	79.2%
Dishwasher	100.0%	93.0%
PC	66.7%	0.0%
RAC BD	24.8%	89.2%
Audio	66.7%	72.1%

Corrected KPIs

D2C Data Help Center– Use Case

[Use Case #4] Comparison of Sales Before-&-After Paid Delivery Service Policy in Germany

Request

Q&A Board

Data Analysis

Analyze the Influences from introduction of Paid Delivery Service Policy in Germany

[Background]

- The German branch implemented paid delivery service starting from March 20, 2021. Previously, all deliveries were free of charge.

[Request Detail]

- After introduction of paid delivery service for refrigerators and washing machines in Germany as of March 20th, check for any sales influences.
- Evaluate the change of AOV, Coupon usage, and Discount rate during the before-&-after period.

Task & Activity

Order trend before-&-after paid delivery service (by Category)

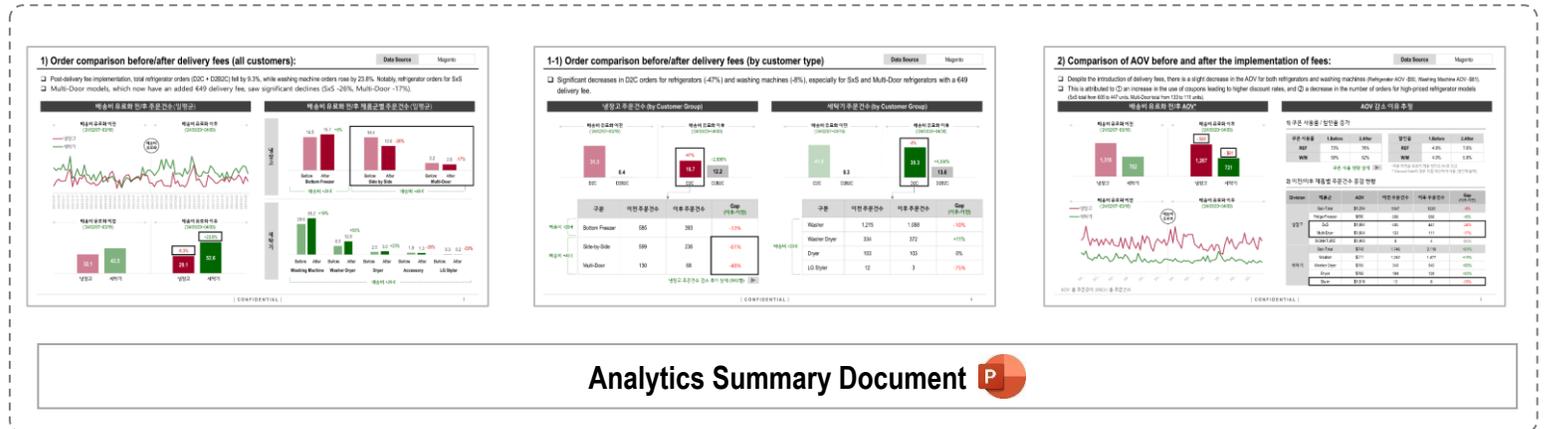
- Change of daily order trend before/After paid delivery implementation

Order comparison before-&-after Paid Delivery (by customer type)

- Refrigerator Order Trend (by Customer Group)
- Washing Machine Order Trend (by Customer Group)

Comparison of AOV before-&-after Paid Delivery

- Comparison of AOV before-&-after Paid Delivery
- Rationale for AOV Decrease
 - Increased coupon usage / discount rates
 - structural effects on AOV due to change of sales portion by category



Analytics Summary Document

Appendix.

- [D2C Glossary](#)
- [Frequently Asked Questions](#)

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
[A, B]				
AC	Air Cleaner / Air Purifier	-	ALL	Condition : Division = AC
AC Comp	Air conditioner Compressor	-	ALL	Condition : Division = AC Comp
Affiliates	A marketing strategy in which affiliates receive a fee in exchange for promoting a service and inducing sales. Typically, the affiliates are compensated according to a fixed fee or sales ratio	GA	Marketing Overview	Condition : Trafficsource_source contains [affiliates] and Trafficsource_medium contains [affiliates]
Always on eCRM	It's a continuously managed CRM campaign	GA	eCRM Mkt. Performance	
AOV (Average Order Value)	This is GMV per order for all transactions that have successfully completed the payment process.	Magento	OBS Business Overview	Calculation : SUM(GMV) / COUNTD(Order ID)
API(%)	This is a dashboard where you can check daily OBS sales, traffic, and inventory trends.		In-depth Analysis	Condition : [A model's OBS sales price] / [A model's average price for all Seller's A model]
APPT	In the shipping-related dashboard, APPT stands for Appointment.	LMDS / TMS	Last Mile Delivery Service	
ASP (Average Selling Price)	This is GMV per unit of product sold for all transactions that successfully completed the payment process.	Magento	OBS Business Overview	Calculation : SUM(GMV) / SUM(Units)
ASP Diff	It refers to the difference in average selling price(ASP) of a product or service between two period	Amazon	Amazon VC Overview	
ATC - Login	The number of times a logged-in user clicks the 'Add to Cart' button on the LG.com website.	GA	Member Overview	Condition : Is Login = Y & ATC click Calculation : Unique Visitor
ATC (Add to Cart)	The number of traffic sessions or unique visitors with Add to Cart click *ATC(%) : ATC/PDP (%)	GA	Marketing Overview	Calculation : ATC(%) = ATC / PDP (%)

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
Average Daily Sales	This is the daily sales volume calculated using the sales history of the last 4 weeks. This is an indicator that can be used to measure efficiency compared to previous sales due to various factors such as promotions.	Magento	Inventory overview	Condition : ISO-Week Basis 4-Week Calculation : SUM(Units) / 28
Average Weekly Sales	This is the weekly sales volume calculated using the sales history of the last 4 weeks. This metric is used to predict sales for that item.	Magento	Inventory overview	Condition : ISO-Week Basis 4-Week Calculation : SUM(Units) / 4
Avg . Position	A relative ranking of the position of lg.com link on Google Search Result Page	GSC	SEO General	
AVG SESSION DURATION	(Time on site) / (The total number of active users)	GA	Campaign Performance	
Banner SOV	SOV (Share Of Voice) is the proportion of the advertising market occupied by a specific brand or product in its field. Banner SOV represents the market share of a specific brand or product in web banner advertising.	GA	Digital Channel Management	
BOUNCE	<p>if a user visits your website, reviews content on LG.COM for less than 10 seconds, and then leaves without triggering any events or visiting any other pages or screens, then the session will count as a bounce.</p> <p>*Antonym : Engaged Session (lasts longer than 10 seconds, has a conversion event, or has at least 2 pageviews or screenviews)</p> <p>*Bounce(%) : SUM(BOUNCE) / SUM(Unique Visitors) (%)</p>	GA	Campaign Performance	Calculation : Bounce(%) = BOUNCE / Unique Visitors (%)

D2C Glossary

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
BS Acc	BS Accessory	-	ALL	Condition : Division = BS Acc
BU	A term referring to the three headquarters of LG Electronics, an abbreviation for Business Unit, also referred to as Company.	-	ALL	
BU Visit	The number of traffic sessions or unique visitors on LG.com website by headquarters	GA	Marketing Overview	
Buying	The number of customers who have completed the payment process by purchasing products as a logged-in user.	Magento	Member Overview	Condition: Is Login = Y Calculation : COUNTD(Customer ID)
[C, D]				
Cancel (Sales)	This is the sales amount for which the discount amount for canceled orders has been deducted among transactions for which the payment process has been successfully completed.	Magento	GMV to NMV Overview	Condition : Status = canceled Calculation : SUM(GMV)
Cancel(%)	This is the percentage of sales that have been canceled out of GMV.	Magento	GMV to NMV Overview	Calculation : SUM(Cancelled Sales) / SUM(GMV)
CHECKOUT	The number of traffic sessions or unique visitors transitioning to the payment page after ATC (CHECKOUT is usually in 3 steps) *CHECKOUT(%) : CHECKOUT / ATC(%)	GA	Marketing Overview	Calculation : CHECKOUT(%) = CHECKOUT / ATC(%)
Checkout1	CHECKOUT1: Customer Information	GA	Checkout Deep Dive	
Checkout2	CHECKOUT2: Shipping Information	GA	Checkout Deep Dive	
Checkout3	CHECKOUT3: Payment Method	GA	Checkout Deep Dive	
Clicks	The number of traffic sessions or unique visitors with Ad Clicks	GSC	SEO General	

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
Closing	This is sales at the end of the income statement.	NPT	P&L Overview	
COI(%) (Current Operating Income)	This refers to profit generated from operating activities and is the ratio of operating profit to OBS net sales.	NPT	P&L Overview	Calculation: COI / Net Sales
Commercial TV	Used by hotels and businesses	-	ALL	Condition : Division = Commercial TV
Company Hierarchy	This filter is used to check performance by business division. The default value for this filter is 'On', but if you click 'Off' on this filter, you can view measured values without the division filter.	Magento	OBS Business Overview	
Cooking	Including Gas stove, Microwave, etc	-	ALL	Condition : Division = Cooking
Coupon Orders Ratio(%)	This is the proportion of orders that include a coupon among all orders. (Except for the welcome coupon)	Magento	Coupon Usage	Calculation: Orders Used Coupon (Except Welcome Coupon) / COUNTD(ORDER ID)
CPC (Costs Per Click)	Cost per Click, It is a common advertising metric used in online advertising, particularly in pay-per-click(PPC) campaign.	GSC	Campaign Ads Performance	
Criteo	Retargeting advertising that provides personalized advertising based on users' web browsing and purchasing behavior. It aims to optimize advertising performance and improve ROI by utilizing the Criteo algorithm	GA	Marketing Overview	Condition : Trafficsource_source contains [cr,criteo] and Trafficsource_medium contains [cp,display]
CTR	Sum of Clicks over sum of Impressions *CTR (%) : $\text{SUM(Clicks) / SUM(Impression) (\%)}$	GSC	SEO General	Calculation : $\text{SUM(Clicks) / SUM(Impression) (\%)}$

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
CVR (Conversion Rate)	<p>Conversion rate in LG.COM generally means purchase rate</p> <p>In terms of traffic, the percentage of Transactions from LG.COM or from PDP,</p> <p>In terms of purchase, the percentage of Order from LG.COM or from PDP</p> <p>*CVR : Transaction / LG.COM or PDP , Order / LG.COM or PDP</p>	GA	Marketing Overview	Calculation : CVR(%) = Transaction or Order / PDP
CY	An abbreviation for Current Year, meaning the current year.	-	ALL	
D2B2C	Direct to Business to Consumer	-	ALL	Condition : Customer group = D2B2C
D2C	Direct to Consumer	-	ALL	Condition : Customer group = D2C
Delivery Itinerary (Delivery Process)	This is a dashboard where you can check the overview of OBS sales and traffic.		In-depth Analysis	
Direct	This means searching the URL directly and entering it into the site	GA	Marketing Overview	Condition : Trafficsource_source contains [direct] and Trafficsource_medium contains [not set,none]
Discount Amount	The amount of money for reductions of the regular price of a product or service to obtain or increase sales	Magento	Coupon Usage	
Display	It is an advertisement used to promote a product, service, or brand using the online display advertising space. It is displayed in various forms such as banner advertisements and video advertisements on digital content such as websites, social media platforms, and apps	GA	Marketing Overview	Condition : Trafficsource_source contains [gdn,discovery,dv360,DV,Youtube] and Trafficsource_medium contains [display,banner,xpanable,cpc,cpm,discovery,dv360, Youtube]
Division	<p>Category</p> <p>*REF,W/M,MNT,OLED,UHD,Air care etc</p>	-	ALL	

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
Dryer	Clothes Dryer	-	ALL	Condition : Division = Dryer
DW	Dishwasher	-	ALL	Condition : Division = DW
[E, F, G]				
Employee Sales	LG Employee purchase	-	ALL	Condition : Customer group = Employee Sales
Engaged Session	A session that lasts longer than 10 seconds, has a conversion event, or has at least 2 pageviews or screenviews.	GA	SEO General	
EOL (End of Life)	This is a discontinued product that is no longer sold. Not included in SKU coverage and ISA calculations.	Magento	SKU&ISA Daily	
FP	This is the target sales set by each corporation.	NPT	Weekly Sales Review	
Frequency	The average number of purchases by logged-in users who have completed a purchase.	Magento	Member Overview	Condition: Is Login = Y Calculation : COUNTD(Order ID) / COUNTD(Customer ID)
G2N	This is the abbreviation for GMV to NMV, which is the percentage of transactions that have completed delivery out of those that have successfully completed the payment process. Canceled or returned transactions do not count towards completion of delivery.	Magento	ALL	Calculation : SUM(NMV) / SUM(GMV)
GMV (Gross Merchandise Value)	This is sales with the discount amount deducted from all transactions for which the payment process was successfully completed.	Magento	OBS Business Overview	Condition : Status = preparing for delivery, picking for delivery, on delivery, holded, complete, RMA-GR, RMA-DR, return Status = cancel and Payment = Y Calculation : SUM(Total amount usd tax excl discounted)

D2C Glossary

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
GMV to NMV(%)	This is the conversion rate from GMV to NMV. In other words, it is the percentage of transactions that have completed delivery out of those that have successfully completed the payment process. Canceled or returned transactions do not count towards completion of delivery.	Magento	GMV to NMV Overview	Calculation : $SUM(NMV) / SUM(GMV)$
Gross Sales	This is the total revenue generated from sales, meaning the total sales volume of OBS.	NPT	P&L Overview	
[H, I, J, K, L]				
H&A	Home and Appliance & Air Solution : Washing machine, Dryer, Vacuum cleaner, Refrigerator, Cooking appliance, Water purifier, Beer maker (homebrew), Plant cultivator (tipped), Home beauty device (prael), Air conditioner, Air purifier, Built-in kitchen appliance, Compressor/motor parts for home appliances, etc	-	ALL	Condition : Company = H&A
H&A Acc	H&A Accessory		ALL	Condition : Division = H&A Acc
HE	Home Entertainment : OLED TV, QNED TV, Lifestyle Screen, Bluetooth Earphones (Tone Free), Wireless Speaker, Sound Bar, etc	-	ALL	Condition : Company = HE
HE Acc	HE Accessory	-	ALL	Condition : Division = HE Acc
Impression	Total number of times an ad is shown	GSC	Campaign Ads Performance	

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
Impressions	Flixmedia: The times the ad is seen GSC: The number of times users see a non-paid link to lg.com on Google Search Result Page	Flixmedia / GSC	Global Retail Traffic	Calculation: SUM(Interactions)
In Progress (Sales)	This is the sales amount with the discount amount deducted from transactions in progress of delivery among transactions for which the payment process has been successfully completed.	Magento	GMV to NMV Overview	Condition : Status = preparing for delivery, picking for delivery, on delivery, holded Calculation : SUM(GMV)
In Progress(%)	This is the percentage of sales in progress of delivery out of GMV.	Magento	GMV to NMV Overview	Calculation : SUM(Sales in Progress) / SUM(GMV)
Installation Flag	This is a flag that distinguishes products that can be installed.	LMDS	Last Mile Delivery Service	Condition: STATUS = Y/N
Interaction Rate(%)	A metric that social media advertisers use to measure how often users interact with their ads	Flixmedia	Global Retail Traffic	Calculation : SUM(Interactions) / SUM(Impressions)
Interactions	likes, comments, shares, etc. related to social media	Flixmedia	Global Retail Traffic	
IOD (contained in M0(TTL))	Delivery complete amount(\$K, Qty) at the base month.		Fulfillment	Condition : Fulfillment status = Completed Invoice Date was taken within the base month.
ISA(%) (In Stock Availability)	This is the percentage of products x warehouse being sold through OBS to products x warehouse available for sale.	Magento	Inventory Overview	Condition : OBS flag = Y & type ID = bundle, omd Calculation : COUNTD(STD_ORG_CODE + SKU with INVENTORY_QUANTITY > 0) / COUNTD(STD_ORG_CODE + SKU)
IT	Including BS(Business Solution) BU : Monitor, PC, Laptop, Projector, etc	-	ALL	Condition : Company = BS

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
LG.com SKU	This is the number of products available for sale on LG.COM.	Magento	Inventory Overview	Condition : MKT flag = Y & exclusion flag = N & model type = PDP Calculation : COUNTD(Store name + SKU)
LG.com Visit	The number of traffic sessions or unique visitors on the LG.com website	GA	Marketing Overview	
LMDS (Last Mile Delivery Service)	This is a system where you can see the delivery process after a customer's order.	LMDS	Last Mile Delivery Service	
LMSP Name	The name of the outsourcing service provider that manages the steps after an order to be delivered to LG customers - large-scale warehouses, inventory shipments, inventory storage and tracking.	LMDS	Last Mile Delivery Service	
Local Campaign	A campaign conducted to promote and sell a particular product or service within a particular city, region, or country	GA	eCRM Mkt. Performance	
Login Visitor	This is the number of visitors who logged into the LG.com website during a specific period.	GA	Member Overview	Condition : Is Login = Y Calculation : Unique Visitor
[M, N]				
M0(+RMA)	It is an indicator that can estimate this month's ML by subtracting the Return amount(\$K, Qty) from M0(TTL).		Fulfillment	Calculation : M0(TTL) + RETURN Completed
M0(TTL)	Total amount(\$K, Qty) that have been delivered within the base month, or are due to be delivered within that month.		Fulfillment	Calculation : SUM (IOD + OPEN)
M1+	Total amount(\$K, Qty) with expected delivery completion date after next month.		Fulfillment	Condition : Fulfillment status = Not Picked, Pick Released, Load Create, Appointment, WH Release, Ship Confirm, MMD ETA within after next month of base month.

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
Mega Campaign	A campaign that uses various media and strategies	GA	eCRM Mkt. Performance	
Microsite	A small-scale website separate from the main website, often used for marketing purposes to provide targeted content for specific campaigns or events	GA	Marketing Overview	
MNT	Monitor	-	ALL	Condition : Division = MNT
MNT Signage	Monitor for digital information outdoor display advertising	-	ALL	Condition : Division = MNT Signage
Model Code	The code of model	-	ALL	
MP(%) (Marginal Profit)	This refers to the additional profit earned by producing and selling one more unit of the product, and is the ratio of marginal profit to OBS net sales.	NPT	P&L Overview	Calculation: MP / Net Sales
MTD (Month-To-Date)	It refers to the monthly cumulative value. This indicator is used when you want to aggregate data from the beginning of the month to a selected date and compare it with the same period last year or the previous month.	-	ALL	Condition: First day of each month
Net Price	This is the price after deducting discounts, allowances, and rebate amounts from the original cost of the product.	NPT	P&L Overview	
Net Sales	This is actual sales of OBS, which is the revenue generated from OBS after deducting returns, discounts, allowances, and sales-related costs.	NPT	Weekly Sales Review	Calculation : Gross Sales - Sales Deduction + Part/Other Sales + Sales Allowance for Return

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
New Joined Member	This is the number of new members registered on the LG.com website during a specific period.	Member	Member Overview	Condition : Creation Date Lgcom is between the selected dates Calculation : COUNTD(Entity ID)
Next	This is called CHECKOUT2, and is the step where shipping information is entered during the payment stage.	GA	Product Funnel	
NMV (Net Merchandise Value)	This is sales with discount amount deducted from transactions for which delivery has been completed among transactions that have successfully completed the payment process. Sales from canceled or returned transactions are not included.	Magento	OBS Business Overview	Condition : Status = complete Calculation : SUM(Total amount usd tax excl discounted)
Non-Paid Channel	Nonpaid Channel is any marketing tactic where you don't pay to promote Including Direct, Organic_Search, Organic_Social, Referral, Organic_SMS, Organic_Email, etc.	GA	Marketing Overview	
NPT (New Plantopia Data)	This is sales based on profit and loss.	NPT	Weekly Sales Review	
[O, P]				
OBS Penetration Rate	This is the percentage of net sales from OBS among LG Electronics' total sales.	NPT	P&L Overview	
OBS Sales For GFK	It refers to the OBS performance obtained from a market research institute called GFK.	GFK	OBS Sales for GFK	
OBS SKU	This is the number of products being sold through OBS.	Magento	Inventory Overview	Condition : OBS flag = ACTIVE, SOLD_OUT, Y & exclusion flag = N & model type = PDP Calculation : COUNTD(Store name + SKU)

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
OBS SKU with Warehouse	It is the total number of OBS SKUs in operation by a corporation multiplied by the number of warehouses in operation for OBS by the corporation. If Corporation A has 50 total OBS SKUs in operation and two warehouses for OBS, Corporation A's OBS SKU with Warehouse is 50 X 2 = 100.	Magento	SKU&ISA Summary	
OMD	This refers to the main product excluding accessories or consumables.	Magento	SKU&ISA Daily	Condition : Unit Type = OMD
OMV	This refers to accessories or consumables. For example, consumables such as air conditioner filters are referred to as OMV.	Magento	SKU&ISA Daily	Condition : Unit Type = OMV
OPEN (contained in M0(TTL))	Total amount(\$K, Qty) that have not yet been delivered, and the estimated delivery date is within the base month.		Fulfillment	Condition : Fulfillment status = Not Picked, Pick Released, Load Create, Appointment, WH Release, Ship Confirm, MMD ETA within the base month.
Opt-in E-mail	The number of visitors who agreed to receive emails	GA /Member Data	Member Overview	Condition : Svc Code = svc611 Calculation : COUNTD(Entity ID)
Order Return	This refers to the order date on which the return was processed.	Magento	Cancel & Return Breakdown	
Orders (GMV or NMV)	This is order quantity for all transactions that have successfully completed payment.	Magento	OBS Business Overview	Condition : GMV or NMV Calculation : COUNTD(Order ID)
Orders Used Coupon	This is the number of orders that include a coupon among all orders. (Except for the welcome coupon)	Magento	Coupon Usage	
Organic_Email	It does not use paid advertisements or promotions, but is used to provide new product or service information, event news, discounts, etc. to existing customers	GA	Marketing Overview	Condition : Trafficsource_source contains [magento,not set] and Trafficsource_medium contains [email]

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
Organic_Search	It means that the user directly enters the search word in the search engine to obtain the search result	GA	Marketing Overview	Condition : Traffic_default Channel Group contains [Organic Search]
Organic_SMS	It does not use paid advertising or promotions, but rather uses personalized messages to elicit responses to consumer behavior or to provide information such as event notifications, transaction checks, service updates, etc	GA	Marketing Overview	Condition : Trafficsource_source contains [thinqapp,THINQ]
Organic_Social	It means organically posting content without advertising on social media platforms, resulting in natural social media activities	GA	Marketing Overview	Condition : Traffic_default Channel Group contains [Organic Social, Organic video] and Trafficsource_medium contains [social,social-network,social-media]
OSM (Online Store Management)	Monitoring of digital shelf items of our company and competitors in major global distribution channels (banners, reviews, ratings, prices, search rankings, inventory, etc.)	OSM	Online Store Management	
P&L Summary	P&L is an abbreviation for Profit & Loss, which is the LG Electronics consolidated closing performance and the company-wide performance. We mainly look at Net Sales and Operating Income.	NPT	P&L Overview	
Paid_Search	It is a type of paid advertisement that pays for an advertisement platform to display advertisements on the search engine results page (SERP). It is mainly used by search engines such as Google and Yahoo, and when a user searches for a specific keyword, the advertisement is displayed	GA	Marketing Overview	Condition : Trafficsource_source contains [google, bing, yandex, yahoo, search] and Trafficsource_medium contains [cp, ppc, retargeting, paid]

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
Paid Channel	Paid channel is the purchase of ad placement on a channel or site to do advertising activities for your brand and reach your target audiences. Including Paid_Search, Paid_Social, Affiliates, PMAX, Display, Criteo, etc.	GA	Marketing Overview	
Paid_Email	It is a marketing strategy that publishes advertisements through email marketing and rewards users who receive them	GA	Marketing Overview	Condition : Traffic_default Channel Group contains [email,e-mail,e mail] and Trafficsource_medium contains [email,e-mail,e mail]
Paid_Other	Not specific types of pay advertisements, not specific types of pay advertisements, including other types of pay advertisements	GA	Marketing Overview	Condition : Traffic_default Channel Group contains [Paid Other]
Paid_Shopping	It aims to expose product advertisements and sell products in the platform, such as Google Shopping, and Amazon advertising, and Amazon advertising, and Amazon advertising	GA	Marketing Overview	Condition : Traffic_default Channel Group contains [shop,shopping] and Trafficsource_medium contains [cp, ppc, retargeting, paid]
Paid_SMS	It is a marketing strategy that sends advertisements through SMS and rewards users who receive SMS	GA	Marketing Overview	Condition : Trafficsource_source contains [firebase] and Trafficsource_medium contains [qrcode,sms, push, mobile.,notification]
Paid_Social	It refers to the form of advertisement paid by advertisers to run advertisements on social media platforms. Typical social media platforms include Facebook, Instagram Twitter, and LinkedIn.	GA	Marketing Overview	Condition : Trafficsource_source contains [facebook,instagram,ticktok,watsapp,meta,twitter,linkedin] and Trafficsource_medium contains [facebook,instagram,meta,twitter,linkedin,paid-social]

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
PBP (Product Buy now Page)	This refers to the product buy now page that lands when you click the “Buy now” button on the product detail page (PDP). Only GP1 countries can count visitors (sessions, unique visitors) to this page.	GA	GP1 Marketing Overview	
PDP (Product Detail Page)	This refers to the product detail page, and the number of visitors (session, unique visitor) to this page can be calculated.	GA	Marketing Overview	
PLP (Product List Page)	This refers to the product list page, and the number of visitors (session, unique visitor) to this page can be calculated.	GA	Marketing Overview	
PMAX	It is a type of Google ad campaign that focuses on maximizing the performance of a particular product or service. It is a paid advertisement that can be displayed on various display and search networks	GA	Marketing Overview	Condition : Trafficcampaign contains [pmax]
Positive/Negative Mentions	Number of mentions having a AI identified positive/negative sentiment	Sprinklr	Customer Awareness	
Proceed Payment	This is called CHECKOUT3, and is the step where payment method is entered during the payment stage.	GA	Product Funnel	
Proceed to Checkout	This is called CHECKOUT1, and is the step where customer information is entered during the payment stage.	GA	Product Funnel	
Product of Level 3	The third most detailed level of the 4-level Product Level in the LG product information system, which is divided by Division.	-	ALL	

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
PTO Bundle	It is a set model name that bundles two or more models for sale as a bundle.	Magento	-	
Purchase	Total number of events named purchase *Purchase (%) : Purchase / Previous step session (%)	GA	SEO General	Calculation : Purchase (%) = Purchase / Checkout (%)
[Q, R]				
QTD (Quarter-To-Date)	It refers to the cumulative quarterly value. This indicator is used when you want to aggregate data from the beginning of the quarter to a selected date and compare it with the same period last year.	-	ALL	Condition: From the first day of the quarter to the base date.
Qty GR(%)	Quantity Growth Rate, This is the percentage of quantity growth by specified period	Amazon	Amazon VC Overview	Calculation : Past Orders (specified period) / Current Orders -1
RAC	Air Conditioner	-	ALL	Condition : Division = RAC
RAC BD	Air Conditioner	-	ALL	Condition : Division = RAC BD
REF	Refrigerator	-	ALL	Condition : Division = REF
Referral	It refers to a marketing strategy in which consumers recommend products or services to attract new customers	GA	Marketing Overview	Condition : Trafficsource_medium contains [referral,app,link]
Reschedule PIC	This is the reason for changing the delivery date.	LMDS (US)	Last Mile Delivery Service (US)	Condition: RXO, LG, Customer, Weather
Return (Sales)	This is the sales amount for which the discount amount for returned transactions has been deducted among transactions for which the payment process has been successfully completed.	Magento	GMV to NMV Overview	Condition : Status = RMA-GR, RMA-DR, return Calculation : SUM(GMV)

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
Return(%)	This is the percentage of sales that have been returned out of GMV.	Magento	GMV to NMV Overview	Calculation : $\text{SUM}(\text{Returned Sales}) / \text{SUM}(\text{GMV})$
Revenue	The sum of the purchase amount	GA	SEO General	
Reviews	Online opinions from current and potential customers who have used LG product or service	Sprinklr	Customer Awareness	
ROAS (Return On Ad Spend)	It measures the revenue generated for every unit of currency spent on advertising $\text{ROAS} = (\text{Revenue from ads}) / (\text{Ad cost}) * 100$	GSC	Campaign Ads Performance	Calculation : $\text{ROAS} = (\text{Revenue from ads}) / (\text{Ad cost}) * 100$
ROI (Return on investment)	It is a financial metric used it evaluate the profitability or efficiency of an investment $\text{ROI} = (\text{Net Income}) / (\text{Total Cost}) * 100$	GSC	Campaign Ads Performance	Calculation : $\text{ROI} = (\text{Net Income}) / (\text{Total Cost}) * 100$
[S, T]				
SAC	System Air Conditioner	-	ALL	Condition : Division = SAC
Salable SKU with Warehouse	It is the number of Salable SKUs each warehouse has. If Corporation A has two warehouses in operation, and there are 20 in Warehouse 1 and 30 in Warehouse 2, the total Salable SKU with Warehouse for Corporation A is 50.	Magento	SKU&ISA Summary	Calculation: $\text{COUNTD}(\text{Salable SKU with Warehouse} > 0) / \text{COUNTD}(\text{OBS SKU with warehouse})$
Salable Stock	This refers to the quantity of product available for sale.	Magento	Inventory Overview	Condition : OBS flag = Y Calculation : $\text{SUM}(\text{INVENTORY_QUANTUTY})$
Sales (USD/EUR)	The total value of goods sold through a Amazon platform within a given time period, typically measured in USD and EUR	Amazon	Amazon VC Overview	
Sales GR(%)	Sales Growth Rate, This is the percentage of sales growth by some period	Amazon	Amazon VC Overview	Calculation : $\text{Past Sales (specified period)} / \text{Current Sales} - 1$
Sales Qty	The number of units or products sild within a specified period	Amazon	Amazon VC Overview	

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
Sales Qty (NPT)	This is the product sales quantity based on NPT.	NPT	P&L Overview	
Search Terms (Keywords)	The keywords searched when entering the site	GA	Product Funnel	
SEO	SEO is an abbreviation for Search Engine Optimization, which aims to improve the search engine ranking of a website to attract more traffic. Various techniques such as keyword research, backlink building, and meta tag optimization are used to make the website more searchable in search engines.	GA	SEO General	
Session	This is a user identification code given when a user accesses LG.com. The identification code expires after 30 minutes of inactivity on LG.com. That is, when a user accesses LG.com and is inactive for more than 30 minutes, a new session code is given when the user logs in again.	GA	Marketing Overview	
Ship Confirm Delays	This is a dashboard where you can check the weekly funnel from LG.com PDP traffic to sales of major business divisions (H&A, HE, IT).		In-depth Analysis	Condition : (Pick Release - Basedate) Hour >= Dashboard filter Threshold (Pick to Ship hours)
SKU Coverage(%)	This is the percentage of products being sold through OBS among products available for sale on LG.COM.	Magento	Inventory Overview	Calculation : COUNTD(OBS SKU) / COUNTD(LG.com SKU)

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
Social Channel Mentions	A measure of how many times your brand name has been mentioned on social media channels by calculating the volume of mentions of your brand on social media channels over a given period	Sprinklr	Customer Awareness	
Store ID	The code of Subsidiary	-	ALL	
Store Name	The name of Subsidiary	-	ALL	
Store Type	This refers to the transaction type. Transaction types include D2C, D2B2C, D2B, and D2E.	-	ALL	
Strategic (on/off)	This filter is used to specify (on) or not (off) a strategic subsidiary.	Magento	OBS Business Overview	
Styler	Clothes Styler	-	ALL	Condition : Division = Styler
SVC	It refers to service sales cases such as A/S.	-	ALL	
TIMEONSITE	The total length of time your website was in focus or your app was in the foreground across all sessions	GA	Campaign Performance	
Timezone	Magento: UTC GA: Each country's timezone (GMT + @) Sprinklr: GMT	-	ALL	
Total Members	This is the number of members registered on the LG.com website.	Member	Member Overview	Calculation : COUNTD(Entity ID)
Total Online Mentions	A brand or a company is mentioned online in various forms of social media such as website blogs, news, videos, or other pieces of content	Sprinklr	Customer Awareness	

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
Transactions	The number of traffic sessions or unique visitors Traffic Session arrived on the Purchase Completion Page *Even if a customer made a purchase, the item will not be counted unless the purchase completion page is checked	GA	Marketing Overview	
Transportation Delays	This is a dashboard where you can check the overview of sales, traffic, ISA, etc. by OBS subsidiary.		In-depth Analysis	Condition : Transportation Delay with Appointment : APPOINTMENT_FROM_DATE =< Basedate Transportation Delay without Appointment : (Ship Confirm Date - Basedate) Hour >= AVG of (Ship Confirm Date - Basedate) Hour + STD of Dashboard filter Threshold (Pick to Ship hours) * Dashboard filter Threshold (σ , Ship to Sales hours)
[U, V, W, X, Y, Z, etc.]				
Unique Visitor	The number of unduplicated visitors to LG.com website over the course of a specified time period	GA	Marketing Overview	
Units (GMV or NMV)	This is product sales quantity for all transactions where the payment process was successfully completed.	Magento	OBS Business Overview	Condition : GMV or NMV Calculation : SUM(Units)
UPT (Units per Transaction)	A metric that retail stores use to determine the average number of items a customer purchases for each customer transaction	Magento	Package Deal	Calculation: SUM(Units) / COUNTD(Order ID)
VC	Vaccum Cleaner / Cordless Stick Vaccum	-	ALL	Condition : Division = VC
VCC BD	Vacuum Cleaner	-	ALL	Condition : Division = VCC BD
W/M	Washing Machine	-	ALL	Condition : Division = W/M

Term	Detail	Data Source	Major Dashboard	Calculation & Condition
Warehouse Return	This refers to the date on which a returned order is reflected in the warehouse.	Magento	Cancel & Return Breakdown	
WH	In the shipping-related dashboard, WH stands for Warehouse.	LMDS / TMS	Last Mile Delivery Service	
WOA (Week of Availability)	This refers to the number of weeks available for sale based on the quantity in stock. If the WOA of a specific division or product is 2, it means that there is enough inventory to sell for two weeks.	Magento	Inventory Overview	Condition : OBS flag = Y & STD_ORG_CODE is not null Calculation : SUM(INVENTORY_QUANTUTY) / Average Weekly S ales
WP	Water Purifier	-	ALL	Condition : Division = WP
WTB (Where to Buy)	The number of traffic sessions or unique visitors with Where to Buy	GA	-	
WTD (Week-To-Date)	It refers to the weekly cumulative value based on ISO (defining Monday as the start of the week). This indicator is used when you want to aggregate data from the beginning of the week (Monday) to a selected date and compare it with the same period last year or last week.	-	ALL	Condition: ISO Week (MON~SUN)
YTD (Year-To-Date)	It refers to the annual cumulative value. This indicator is used when you want to aggregate data from the beginning of the year to a selected date and compare it with last year's cumulative value.	-	ALL	Condition: From January 1st of each year to the base date.
3PL(Third-Party Logistics) Hub	The name of the outsourcing service provider that manages the steps after an order to be delivered to LG customers - large-scale warehouses, inventory shipments, inventory storage and tracking.	LMDS	Last Mile Delivery Service	

#	Question
1	Q. Differences between GMV, NMV, NPT Sales and revenue recognition criteria?
2	Q. SKU Coverage (%) and ISA (%)
3	Q. Difference between GA Session and User
4	Q. Features of D2C Dashboard Portal
5	Q. List of country and corporate codes
6	Q. OneTrust and traffic reduction
7	Q. List of countries implementing OneTrust
8	Q. Traffic classification criteria by Channel Group
9	Q. How to download raw data?
10	Q. Traffic data update frequency
11	Q. How to access the partner Help Center
12	Q. Unable to connect to Tableau server
13	Q. How to subscribe to a dashboard
14	Q. Unable to log in/access Help Center (Zendesk)
15	Q. What are MTD vs Target, and Progress?
16	Q. How to obtain sessions for a specific page
17	Q. Explanation of UTM
18	Q. Request for GCP Project creation
19	Q. When can GA4 data be used?
20	Q. GA3 events vs. GA4 events

#	Question
21	Q. Reasons for the sharp decline in session numbers after GP1 implementation
22	Q. How can I access the dashboard related to Flixmedia?
23	Q. Countries implementing OBS and GP1
24	Q. How to evaluate OSM Score
25	Q. Key metrics of the OSM dashboard
26	Q. Definition and meaning of Order Visibility
27	Q. How to select countries for LMDS application
28	Q. Difference between Item category and p_item_category
29	Q. Meaning of Sprinklr Instagram Engagement numbers
30	Q. How to create/modify/delete GA4 Audience
31	Q. What does Items viewed mean?
32	Q. Differences between Total revenue, Purchase revenue, and Item Revenue
33	Q. Traffic differences between Google Ads and GA4
34	Q. How to analyze landing pages
35	Q. Does GA4 use cookies?
36	Q. Can I receive cookie consent rates?
37	Q. Difference between Main property and Sub-property
38	Q. Number of data items that can be downloaded at once from Sprinklr
39	Q. Definition of EWS reserved
40	Q. GFK collection guide

Q1 Differences between GMV, NMV, NPT Sales and revenue recognition criteria?

GMV refers to the sales amount after deducting discounts from all transactions where the payment process was successfully completed. It includes orders that have not yet been delivered. NMV refers to the sales from transactions that have been delivered. It does not include sales from canceled or returned transactions. NPT Sales is the total sales figure, reflecting adjustments such as discounts and other fee income from NMV.

Q2 SKU Coverage (%) and ISA (%)

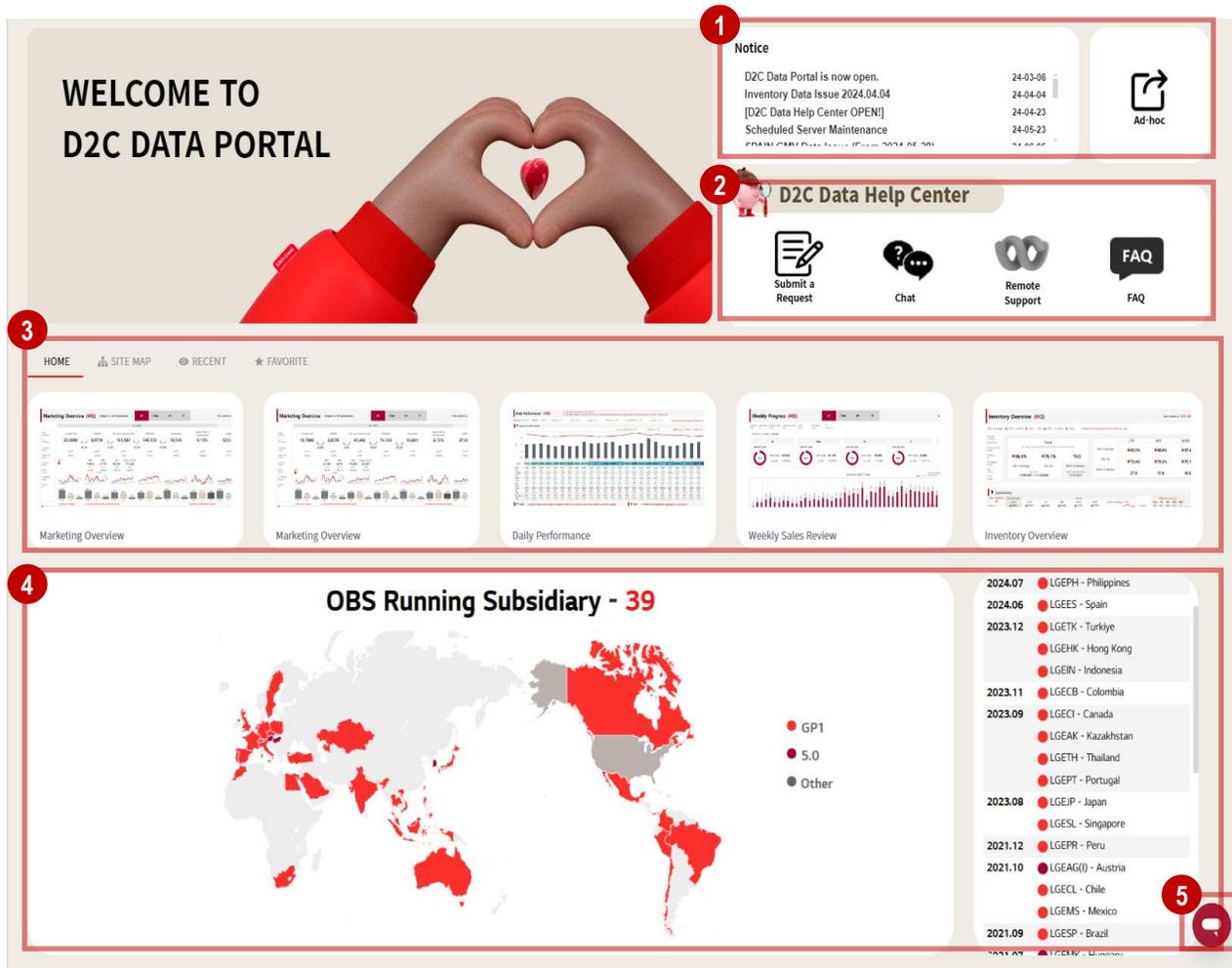
SKU Coverage is the ratio of products sold through OBS among those available on LG.COM.
ISA stands for In-Stock Availability, which is the ratio of products sold through OBS to those in the warehouse.

- As of the writing date, the ISA calculation logic for Colombia and the Philippines does not reflect the stock ratio of each warehouse due to operational methods.
[ISA logic calculation method for Colombia and the Philippines - D2C Data Help Center \(zendesk.com\)](#)

Q3 Difference between GA Session and User

A session is a user identification code assigned when a user accesses LG.com, with a new session code assigned every 30 minutes. Therefore, multiple sessions can be assigned to one visitor. A user represents a Unique Visitor, indicating the number of distinct visitors.

Q4 Features of D2C Dashboard Portal



- 1. **Notice:** Dashboard and data-related announcements
Ad-hoc: Direct access to individual dashboard projects for each user
- 2. **Submit a Request:** Write requests for issue checks and dashboard modifications or development
Chat: Provides AI chatbot and agent chat for simple inquiries
Remote Support: Offers real-time remote support from experts
FAQ: Provides frequently asked questions, manuals, and permission guides
- 3. **Site Map:** Dashboard site map
Recent: Recently viewed dashboards
Favorite: Dashboards marked as favorites (up to 5 on the Home screen)
- 4. **OBS Running Subsidiary:** Information on current OBS operating subsidiaries and opening schedule list
- 5. **Chatbot Service:** Provides AI chatbot and agent chat for simple inquiries

Q5 List of country and corporate codes

Each country's corporate code includes a list of 54 countries across the NA, LATAM, EU, CIS, MEA, and ASIA regions. Detailed country codes can be found in the reference materials on the next slide.

Q6 OneTrust and traffic reduction

After transitioning to GP1, some countries experience a sharp decline in traffic. This phenomenon occurs due to changes in cookie consent rates when implementing Onetrust during the GP1 transition. Applying Onetrust (Cookie Consent Mode) typically results in a traffic decrease of about 40-50%.

Q7 List of countries implementing OneTrust

As of the writing date (October 2024), a total of 33 countries, including Poland, Hungary, and Vietnam, have adopted and are using Onetrust. A detailed list of countries can be found in the reference materials on the next slide.

[Reference] Subsidiary-specific codes and Onetrust, GP1 open information (1/2)

Appendix

Region	Code	Country	OneTrust Date	GP1 OPEN	GA Property
NA (North America)	LGEUS	United States			
	LGECHICA GO	Chicago			
	LGECI	Canada	2024.09.24	2023.09.14	CA_EN,CA_FR
LATAM (SCA)	LGEMS	Mexico		2024.04.23	MX
	LGECB	Colombia	2023.11.02	2023.11.02	CO
	LGECCL	Chile		2023.11.02	CL
	LGEPR	Peru		2023.11.02	PE
	LGEPS	Panama		2024.04.23	CAC_EN
					CAC
	LGESP	Brazil	2023.03.30	2024.04.23	BR
	LGEAR	Argentina			AR
EU	LGEAG	Austria	2023.03.30		AT
	LGEBN	Netherlands	2023.03.30	2024.08.27	NL
		Belgium	2023.03.30		BE_FR
	LGEDG	Germany	2023.10.24	2023.10.24	DE
		Switzerland		2023.03.30	CH_DE
				2023.03.30	CH_FR
	LGEPL	Poland	2023.03.30	2024.05.29	PL
	LGE CZ	Czech Republic	2023.03.30	2024.05.29	CZ
Slovakia		2023.03.30		SK	

Region	Code	Country	OneTrust Date	GP1 OPEN	GA Property
EU	LGEMK	Hungary	2023.03.30		HU
		Bulgaria	2023.03.30		BG
		Croatia	2023.03.30		HR
		Serbia	2023.03.30		RS
	LGERO	Romania	2023.03.30		RO
	LGELV LGELA	Latvia	2023.03.30		LV
		Estonia	2023.03.30		EE
		Lithuania	2023.03.30		LT
	LGEUK	United Kingdom	2023.06.06	2023.06.06	UK
	LGESW	Sweden	2023.03.30	2024.05.29	SE
		Denmark	2023.03.30		DK
		Finland	2023.03.30		FI
		Norway	2023.03.30		NO
	LGEIB	Spain	2023.03.30	2024.06.13	ES
		Portugal	2023.09.26	2023.09.26	PT
	LG EFS	France	2023.03.30	2023.12.13	FR
LGEIH	Greece	2023.03.30		GR	
	Italy	2023.03.30	2023.12.13	IT	
CIS	LGEUR	Ukraine			UA
	LGERA	Russia			RU
	LGEAK	Kazakhstan		2023.09.14	KZ

[Reference] Subsidiary-specific codes and Onetrust, GP1 open information (2/2)

Region	Code	Country	OneTrust Date	GP1 OPEN	GA Property	
ME&A	LGEEG	Egypt		2024.08.27	EG_AR,EG_EN	
	LGEGF	UAE			UAE_AR,UAE_EN	
	LGEIR	Iran			IR	
	LGETU	Tunisia			TN	
	LGEAS	Algeria			DZ	
	LGEMC	Morocco			MA	
	LGESA	South Africa		2024.08.27	ZA	
	LGEAF	Nigeria			AFRICA,AFRICA_FR	
	LGETK	Turkey		2023.12.05	2023.12.05	TR
	LGELF	Levant (Jordan, Syria, Iraq, Lebanon)				LEVANT_AR, LEVANT_EN
	LGEYK	Israel			IL	
	LGESB	Saudi Arabia		2023.09.26		SA, SA_EN
	LGEPK	Pakistan				
	LGEEF	East Africa				EASTAFRICA
	Asia	LGEAP	Australia		2024.07.23	AU
New Zealand				2024.07.23	NZ	
LGEML		Malaysia		2024.10.15	MY	
LGEPH		Philippines		2024.07.23	PH	
LGESL		Singapore	2023.08.30	2023.08.30	SG	
		Bangladesh			BD	
		Nepal			NP	
	Sri Lanka			LK		

Region	Code	Country	OneTrust Date	GP1 OPEN	GA Property
Asia	LGEIN	Indonesia		2023.12.20	ID
	LGEJP	Japan		2023.08.30	JP
	LGEVN/VH	Vietnam	2024.07.23	2024.07.23	VN
	LGEIL	India		2024.01.30	IN
	LGETH	Thailand	2023.09.20	2023.09.20	TH
	LGETT	Taiwan		2024.09.24	TW
	LGEHK	Hong Kong		2023.12.20	HK, HK_EN
	LGECH	China			CN
Global			2023.08.22	2023.08.22	Global
					EC
NAC					UZ, UZ_RU

Q8 Traffic classification criteria by Channel Group

Paid Channel refers to marketing channels where advertising costs are incurred, such as search ads, brand ads, and affiliate marketing.
Non-Paid Channel refers to marketing channels where no advertising costs are incurred, such as direct traffic and organic search.

Q9 How to download raw data?

To extract data, click the 'choose a format to download' button at the top of the dashboard, then click the 'crosstab' button.
Select either Excel or CSV format and click the download button to get the desired content.
For data that cannot be downloaded from the dashboard, please contact the help center directly.

Q10 Traffic data update frequency

Traffic data is typically available through the Marketing Overview and Traffic Raw Data Download dashboards and is updated daily at 8:30 AM (KST) with data from 2-3 days prior.

For example, data from 2024/7/1 will be available after 8:30 AM on 2024/7/3 or 2024/7/4.

Q11 How to access the partner Help Center

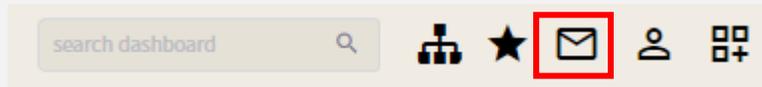
The Help Center login is based on an AD account (@lge.com).
Once the EP account is created and the AD account setup is complete, you can access the Help Center by logging in with your AD account.

Q12 Unable to connect to Tableau server

First, please access the dashboard using an incognito mode browser to ensure it functions properly.
If the dashboard is not accessible in incognito mode, your access rights may have been revoked.
In this case, you need to create a ticket through the Help Center to request access to the dashboard.

Q13 How to subscribe to a dashboard

Subscription is a feature that allows you to set up email subscriptions for a specific dashboard, enabling you to view it with desired recipients at a designated time. You can start the setup by clicking the mail icon at the top of the dashboard. In the setup popup, create a schedule for the time you want to send the email, then configure the email content (dashboard, users, etc.) within the created schedule and save it. You will receive emails according to the configured settings.

1. Click the mail icon at the top**2. Create a Schedule and Subscription to send emails.**

Schedule List

Create a schedule for the time you want to send the email.



Subscription List

Configure the email content (dashboard, users, etc.) within the created schedule.

Q13 How to subscribe to a dashboard

[Reference] Detailed Description of Subscription Settings Window

Select the desired dashboard and confirm at the bottom

The screenshot shows the 'REGIST SUBSCRIPTION' window with the following sections:

- BASIC INFORMATION:** Includes fields for Subject (Sales_Monday), Description (Weekly), Subscription Schedule (Sales_Monday), Time Zone (Asia/Tokyo), Run Time (09:00), Repetition (week), and Schedule Time (2024-03-11 09:00).
- Dashboard Selection:** A tree view showing 'Business Overview' (expanded) with sub-items: 'OBS Business Overview', 'Daily Sales Review', 'Daily Performance', 'Weekly Funnel', and 'Sales_NPT' (expanded) with 'OBS Subsidiary Overview'.
- Subscription Users:** An email input field with 'ADD' and search icons, and a table with one user: 'nayeon.kwon@lge.com'.
- DETAILED SETTINGS:** A text area for content with 'Content Header' (안녕하세요 Weekly Sales report 보내드립니다. @link1) and 'Content Footer' (감사합니다.).
- Dashboard List Table:**

Dashboard Name	Attachment Name	Parameter List	Remove
OBS Business Overvie	OBS Business Overview	uk	[Remove]
Daily Sales Review	Daily Sales Review		[Remove]
Weekly Funnel	Weekly Funnel		[Remove]

Set desired recipients through the email address input/search field

- Content Header: Top content based on the dashboard screen
 - Content Footer: Bottom content based on the dashboard screen
- *How to Set Hyperlinks
> @link+Number
- Enter the number of the desired dashboard from the selected dashboards
- Ex) @link1

Set desired parameters for each dashboard
> BIZ Type, Company, etc.

Subscription is complete when you save.

Q14 Unable to log in/access Help Center (Zendesk)

There are several reasons why you might be unable to access the Help Center, such as AD account issues or password expiration.

Case 1: Unable to log in with an AD account (LGE employees)

If you cannot log in with your AD account, it is possible that your password has expired after 90 days.

In this case, updating your AD account password should resolve the issue.

- To change it in a cloud environment: Ctrl + Alt + Del → Change Password
- ※ A confirmation email for the password change will be sent to the user's LGEP Mail.

Case 2: Unable to log in with an AD account (Partners)

You can send a request email to the LG Electronics Integrated IT Call Center (SPOC@lge.com) including the following information:

- Name of the person / Employee number / SSO(=AD) ID:
- New AD password:
- Reason for request:

Case 3: Other cases

If you still cannot log in, please contact a Data Help Center representative.

- ※ Chat support is available even without logging in.

Q15 What are MTD vs Target, and Progress?

MTD vs Target refers to the MTD value of NPT achieved by dividing the Target value by each day. For the progress of month n, it is the MTD value of NPT achieved based on the total Target value for the month.

MTD vs Target: $\text{NPT(MTD)} / \text{Target(MTD)}$

Progress: $\text{NPT(MTD)} / \text{Target(Total value for the month)}$

Q16 How to obtain sessions for a specific page

You can check the traffic of a specific page through the GA4 console. You can add the Page location dimension to the ROWS field and set the VALUES field to the Sessions dimension.

After setting the filter, you can process the session data for the desired page.

Q17 Explanation of UTM

UTM (Urchin Tracking Module) is a parameter-based tracking code used to track incoming traffic from external channels. When setting up ads, you can insert the source and medium, and for the campaign, you can include details such as the campaign start date, execution team, partner name, and the name of the campaign being executed. Using UTM is recommended for accurate measurement of advertising campaigns and for channel grouping (classification based on paid/organic traffic and the nature of the advertisement).

Q18 Request for GCP Project creation

To create a GCP project, you must first consult with the person in charge and then proceed by drafting an EP proposal.

1) Pre-consultation with the person in charge on the following details:

- Purpose of use: Provide a detailed explanation of the purpose (attaching the entire architecture is recommended)
- Services and permissions: Specify the required GCP services and permission levels
- Estimated cost: Explain the basis for the estimated cost of using GCP services
- Persons in charge: Chanmin Park, Suhwan Kim

2) Drafting the EP proposal:

- Submitter: Person requesting permissions
- Submission method: EP -> Work -> Request

Q19 When can GA4 data be used?

With the transition to the GP One platform, data from the new platform will be collected in GA4.

Starting from April 24, 2023, in the UK, you will be able to use GA4 data for each country from the point of transition to the GP One platform. Data from LG.com 5.0 before the GP One migration will be collected in GA3 and can be checked in the GA3 account.

Q20 GA3 events vs. GA4 events

You can obtain GA console access permissions by applying through the Jira Service Desk system below.

You can select the required country and receive permissions through the Jira Service Desk.

-> GA4: <https://lge-ga-support.atlassian.net/servicedesk/customer/portal/18>

The default permission is Analyst, which does not require an additional approval email attachment, and the permission period is given as "1 year." This level of permission is sufficient for analysis tasks such as creating segments or downloading data.

The Editor permission period is "3 months," and when requesting, you need to attach a screenshot image of the approval email from an LGE team leader.

Q21 Reasons for the sharp decline in session numbers after GP1 implementation

When GP1 is introduced, data is collected in GA4. When transitioning from UA to GA4, the number of sessions may drop significantly. This is because the session criteria differ between UA and GA4. In UA, a session restarts at midnight or when new campaign parameters are detected, but in GA4, it does not restart.

Q22 How can I access the dashboard related to Flixmedia?

The Global Retail Traffic dashboard is based on Flixmedia data and allows you to view the efficiency of advertisements on social media.
↳ In-depth Analysis – Retail Channel – Global Retail Traffic

Q23 Countries implementing OBS and GP1

As of the date of writing, OBS has been implemented in 38 countries.

Region	Subsidiary	GP1	GP1 Open Date
NA	Canada	Y	2023. 9. 14.
	US	N	
EU	Austria	N	
	Czech	Y	2024. 5. 29.
	France	Y	2023. 12. 13.
	Germany	Y	2023. 10. 24.
	Hungary	N	
	Italy	Y	2023. 12. 13.
	Netherlands	Y	2024. 8. 27.
	Poland	Y	2024. 5. 29.
	Portugal	Y	2023. 9. 26.
	Spain	Y	2024. 6. 13.
	Sweden	Y	2024. 5. 29.
	Switzerland	N	
	UK	Y	2023. 6. 6.
MEA	Egypt	Y	2024. 8. 27.
	Saudi	Y	2023. 9. 26.
	Turkiye	Y	2023. 12. 5.
	South Africa	Y	2024. 8. 27.

Region	Subsidiary	GP1	GP1 Open Date	
LATAM	Brazil	Y	2024. 4. 23.	
	Chile	Y	2023. 11. 2.	
	Colombia	Y	2023. 11. 2.	
	Mexico	Y	2024. 4. 23.	
	Panama	Y	2024. 4. 23.	
	Peru	Y	2023. 11. 2.	
Asia	Australia	Y	2024. 7. 23.	
	Hong Kong	Y	2023. 12. 20.	
	Indonesia	Y	2023. 12. 20.	
	Japan	Y	2023. 8. 30.	
	Singapore	Y	2023. 8. 30.	
	Taiwan	Y	2024. 9. 24.	
	Philippines	Y	2024. 7. 23.	
	New Zealand	Y	2024. 7. 23.	
	Thailand	Y	2023. 9. 20.	
	Malaysia	Y	2024.10.15	
	Vietnam	Y	2024. 7. 23.	
	CIS	Kazakhstan	Y	2023. 9. 14.
	India	India	Y	2024. 1. 30.

Q24 How to evaluate OSM Score

The OSM score evaluation criteria include approximately 20 factors, such as the total number of SKUs, the number of SKUs in the top 20 in search, and average ratings.

#	Indicator	Description	Calculation/Remarks
1	# of SKUs	Number of distinct LG SKUs exposed in latest week with selected condition	Sourced from PDP Contents (rpc)
2	# of SKUs in Top 20 SERP	Number of distinct LG SKUs in latest week exposed in search rank between 1 and 20	
3	Avg. Rank in Top 20 SERP	Avg. Rank of LG SKUs in latest week exposed in search rank between 1 and 20	
4	# of Review	Number of distinct LG SKU reviews in latest day of selected week	
5	Avg. Ratings	Avg. Ratings of LG SKU exposed in latest week	
6	Stock Availability	In-Stock availability of LG SKUs exposed in latest day of selected week	# of In stock / (# of In Stock + # of OoS)
7	Avg. Selling Price	Avg. Selling Price of LG SKU exposed in latest day of selected week	Discount price / Local currency
8	SERP Top Ranked SKU within 20 in latest week_Days	# of Days per SKU in latest week ,exposed search rank between 1 and 20	
9	SERP Top Ranked SKU within 20 in latest week_Avg.Rank	Avg. Rank per SKU in latest week, exposed search rank between 1 and 20	
10	SERP Top Ranked SKU within 20 in latest week_Avg.Price	Avg. Selling Price per SKU in latest day of selected week, exposed search rank 1-20	Discount price / Local currency
11	Share by brand in Top 20 SERP (# of Brand Count)	Number of brand count in latest week exposed in search rank between 1 and 20	100=Total brand count
12	(Ref) SOV Comparison_Banner	Number of brand count in latest week exposed in banner data	100=Total brand count
13	(Ref) SOV Comparison _ Product List	Number of brand count in latest week exposed in product list rank between 1 and 20	100=Total brand count
14	# of Reviews Weekly Trend (Average Review Count)	Number of distinct SKUs per Brand exposed in latest week with selected condition	Sourced from PDP Contents (rpc)
15	# of New Reviews by Day of the Week (vs. Week Before)	Number of distinct SKUs per Brand exposed in each weekday (Mon-Sun)	Iso week
16	Total SKU Showcased (Latest Day)	Number of distinct SKUs per Brand exposed in latest day of selected week	
17	Total / Newest Review Numbers (Latest Day)_New Reviews	Calculated Incremental of reviews compares with latest day of week ago.	This weeks' review – Last weeks' review
18	Share of Negative Review SKUs	Ratio of 0 rated, Negative or Positive LG/SS SKUs in latest day of selected week	Negative Review Rating over 0 and under 3.0
19	Out of Stock Days	Number of days collected as OoS per SKU in latest week	
20	Price Daily Trend by Brand	Avg. Price per Day*Country*Brand Level (giving out latest 28days data)	List Price / Local Currency
21	SKU Price Daily Trend by Retailer	Avg. Price per Day*Country*Retailers available to scope down into selected SKU(mpc)	List Price / Local Currency

Q25 Key metrics of the OSM dashboard

- 1) Key Indicator Overview: Analyzes brand trends in distribution over the past 8 weeks using actual data.
- 2) Key Indicator Visibility: Offers top exposure SOV for a company and competitors based on search rankings and trends.
- 3) Key Indicator Conversion: Monitors reviews, ratings, and stock to show product trends over 8 weeks.
- 4) Price Trends: Tracks PDP price changes to forecast prices for our and competitors' products.

Q26 Definition and meaning of Order Visibility

It's a dashboard that connects GERP and LMDS (or TMS in some countries) to track the delivery stages by order number, displaying the delivery status by corporation at the time of inquiry.

Q27 How to select countries for LMDS application

On the LMDS dashboard, you can select the desired country from the 'subsidiary' filter at the top and filter to view LMDS information for that country.

The countries currently available for selection on the dashboard are Australia, Austria, Brazil, Chile, Colombia, Czech Republic, Egypt, France, Germany, India, Indonesia, Italy, Kazakhstan, Mexico, Netherlands, Panama, Poland, Saudi Arabia, Sweden, Thailand, Taiwan, UK, and Vietnam.

Q28 Difference between Item category and p_item_category

The item category is a default dimension in GA, while p_item_category is a custom dimension created as needed.
The item category collects data for Ecommerce events and does not display other events.
The p_item_category collects data for product-related events, and other events are displayed as (not set).

Q29 Meaning of Sprinklr Instagram Engagement numbers

On Instagram, the engagement number displayed represents the sum of Organic and Paid Engagement.
However, the figures that can be imported into Sprinklr via the Social Analytics API are only for Organic Engagement.

Q30 How to create/modify/delete GA4 Audience

You can create an Audience after obtaining Editor permissions for the GA4 property.

- [Creation]Admin – Audiences - Click New audience - Create a custom audience - Add new condition – Save
- [Editing]Admin – Audiences – Edit – Save (Only the name and description can be edited)
- [Archiving]Admin – Audiences – Archive (In GA4, the delete function for Audiences has been replaced with the archive function. Archiving an audience permanently deletes it.)

Q31 What does Items viewed mean?

"Items viewed" refers to the number of items a customer has viewed.

This value is calculated by sending item information along with the view_item event. Item-related events only count item-scoped events, so using events from other scopes may result in a decrease in the event count.

Q32 Differences between Total revenue, Purchase revenue, and Item Revenue

Total revenue is the amount obtained by subtracting refunds from the sum of all revenue generated from purchases, subscriptions, and ads.

Purchase revenue is the amount obtained by subtracting refunds from the total revenue generated from e-commerce and in-app purchases.

Item revenue is the total revenue generated from individual items purchased. It is the total sales excluding taxes and shipping fees, minus any refunds.

Q33 Traffic differences between Google Ads and GA4

The discrepancy between Google Ads and GA4 data arises due to differences in aggregation methods, with the main differences being as follows:

- Tracking Method: Google Ads uses click-based tracking, while GA4 uses event-based tracking.
- Time Zone Settings: Differences in time zone settings between the two platforms can lead to data discrepancies.
- Filters and Settings: Filters or settings applied in GA4 may differ from those in Google Ads.
- Cookie Blocking: Cookie blocking may occur depending on the user's browser settings.

Q34 How to analyze landing pages

In GA4, you can identify the landing page a user entered through by using the Session_start event that occurs when a specific session begins, along with the Page Location dimension.

Q35 Does GA4 use cookies?

Google Analytics 4 uses first-party cookies. First-party cookies identify unique users and are identified as individual sessions (visits).

Google states that Google Analytics is designed to function regardless of the presence of cookies. If cookies are not available in a particular session, Google fills in the data gaps based on modeling.

Q36 Can I receive cookie consent rates?

The extraction of cookie consent rates is directly handled by the D2C Platform Service Team. You can request a ticket in the D2C Platform Service Team's Jira project (LG.com 5.0 Common - LGCOMMON) to receive the cookie consent rates.

Q37 Difference between Main property and Sub-property

In GA4, there are Main pages and Sub-property pages for each country. Each page has different methods of traffic collection.

- Main Property: Collects only cookie consent data and aggregates Device ID
- Sub-Property: Collects all traffic and aggregates Modeling ID

Q38 Number of data items that can be downloaded at once from Sprinklr

The number of data rows that can be downloaded at once is 100,000 rows based on an Excel file.

Q39 Definition of EWS reserved

The OBS Stock management method for each corporation is configured as either ① Reserved Stock or ② (Sub-inventory) Available Stock, depending on whether it is ① Reserved or ② Sub-inventory.

- Available Stock = The total inventory of the specific SKU held by LG Electronics Corporation A
- Reserved Stock = The inventory of the specific SKU reserved for OBS by LG Electronics Corporation A

Q40 GFK collection guide

GFK is collected based on Data Coverage, Data Filtering, Price Range Logic, and Metrics criteria.

Data Coverage	
Audio	Brazil, Chile, Colombia, France, Germany, Italy, Peru, Spain
Wireless Headset	US/DE
REF/MM	UK, UAE, Iraq, Peru, Chile, Egypt, India, Italy, Spain, Brazil, France, Greece, Israel, Mexico, Norway, Panama, Poland, Russia, Sweden, Taiwan, Algeria, Austria, Czech Denmark, Ecuador, Finland, Germany, Hungary, Morocco, Turkiye, Ukraine, Vietnam, Colombia, Honduras, Malaysia, Portugal, Slovakia, Thailand, Guatemala, Hong Kong, ,Singapore, Costa Rica, Kazakhstan, Netherlands, Saudi Arabia, South Africa
TV	Australia, Austria, Belgium, Brazil, Canada, Chile, Colombia, Costa, Rica, Croatia, Czech, Denmark, Ecuador, Egypt, Finland, France, Germany, Greece, Guatemala, Honduras, Hong, Kong, Hungary, India, Indonesia, Iraq, Ireland, Israel, Italy, Japan, Kazakhstan, Malaysia, Mexico, Morocco, Netherlands, New, Zealand, Norway, Panama, Peru, Poland, Portugal, Romania, Russia, Saudi, Arabia, Serbia, Singapore, Slovakia, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkiye, UAE, UK, USA, Vietnam
Monitor	Netherlands, Brazil, France, Germany, Hungary, Italy, Poland, Portugal, Spain, Sweden, UK

Price Range Logic			
Product	High	Mid	Low
Sound Bar	\$500+	\$200+	~\$200
Wireless Speaker	\$300+	\$100+	~\$100
Wireless Headset	\$300+	\$100+	~\$100
TV	1000\$+	750\$ ~999\$	~750\$
H&A	1000\$+	750\$ ~999\$	~750\$
Monitor	600\$~	200\$~599\$	~199\$

Data Filtering
For H&A Products, data is not including “built in” products (except Mexico)
Audio/Wireless Headset: Apple and Beats Brand are excluded (BU request)
Metrics
ASP: Metrics calculated by dividing totals sales/total unites
Sales USD: Sales in USD
Sales Units: Sales in term of number of units sold

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