Zendesk

Zendesk Data Source

Description

Zendesk is a key data source within our data pipeline. It serves as our primary customer support and ticketing platform, where customer interactions, inquiries, and support tickets are logged and managed.

Data Importance

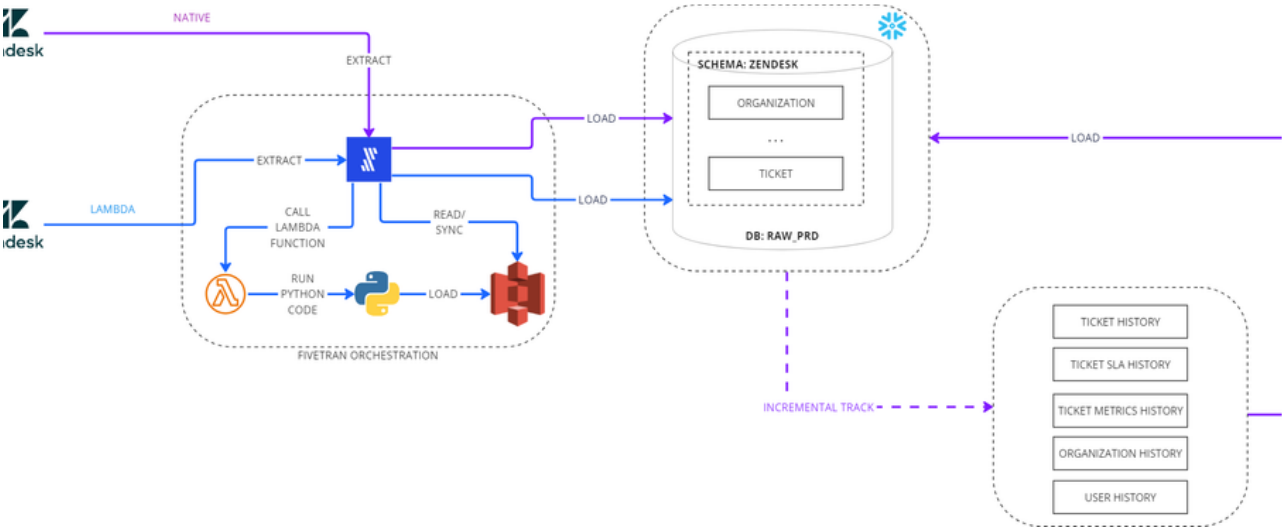
Zendesk data plays a significant role in various aspects of our organization, including:

- **Customer Insights:** We analyze Zendesk data to gain insights into customer issues, support ticket trends, and customer satisfaction.
- **Agent Performance:** Zendesk data helps us evaluate agent performance, response times, and ticket resolution rates.
- **Product Improvement:** Customer feedback and issue data from Zendesk inform product development and improvement initiatives.

Data Pipeline Architecture

Integration Overview

Zendesk is seamlessly integrated into our data pipeline, allowing for near-real-time data retrieval and analysis. Below is an overview of how Zendesk fits into our data pipeline architecture:



Link to Miro

Components

- **Zendesk API:** We utilize the Zendesk API to fetch customer support ticket data, customer interactions, and agent activity.
- **Data Transformation:** Zendesk data may undergo transformations to align it with our standardized data format and schema.

Workflow

1. Data Retrieval: Zendesk data is retrieved every 30 min through the Zendesk API.
2. Data Transformation: Data is transformed as necessary to ensure consistency and compatibility with our data pipeline.
3. Data Ingestion: Transformed Zendesk data is ingested into our data storage solutions.

Data Processing

Data Ingestion

- Zendesk data is ingested into our data pipeline every 30 min to ensure that our analytics are up-to-date.

> Only the columns selected in Fivetran will be replicated in Snowflake. If a column is missing, reach out the the data engineering team.

Data Transformation

- Data may be transformed during ingestion to standardize formats, enrich with additional data, e.g. Jason fields from Zendesk SLA and Ticket Matrix API will be transformed and normalized as different columns in datasets.
- Every day, a DBT job is run to create or update views with light transformations. This results in staging views which are stored in the STAGING_ZENDESK schema.

Data Storage

- Zendesk data is stored in the MART_ZENDESK schema, where it's available for analysis and reporting.

Data Governance and Security

Data Privacy

- Zendesk data is handled in compliance with data privacy regulations, with any sensitive information anonymized or encrypted.
- **Personally Identifiable Information (PII) Hashing:** To further enhance the security and privacy of PII data sourced from Zendesk, we utilize Fivetran to hash PII data fields. Hashing irreversibly transforms PII data into cryptographic representations, preserving data privacy while permitting analysis. Access to the hashed PII data is tightly controlled and restricted to authorized personnel only.

Access Control

- Access to Zendesk data and related integration components is restricted to authorized personnel.
- The contacts provided below pertain to the data ingested into the Business Systems Data Hub.

Type	Scope	Primary Contact	Secondary Contact
Data Owner	Makes decisions about the data's permissible use, its classification, and its criticality.		
Data Steward	Ensures that data governance policies are implemented and followed. Understands the business context and use of the data and bridge the gap between IT and business units.		
Data Custodian	Handles the technical aspects of storing, securing, and maintaining data, ensuring that the data is available, reliable, and secure.	@Rutvij Sharma	@Rainy Li

Compliance

- Our Zendesk data integration complies with relevant data protection regulations and industry standards.

Deployment and Scaling

Deployment Strategy

- The Zendesk integration is deployed within our existing data pipeline infrastructure.

Scalability

- The integration is designed to scale horizontally to accommodate increased data volumes as needed.

Objects Display

Source	Object	Pipeline (Heroku)	Pipeline (Snowflake)	History Migration
Zendesk	audit_logs	Fivetran - native	Fivetran - native	
Zendesk	group_memberships	Fivetran - native	Fivetran - native	
Zendesk	groups	Fivetran - native	Fivetran - native	
Zendesk	organizations	Fivetran - native	Fivetran - native	Yes
Zendesk	organizations_fields	Fivetran - native	Fivetran - native	
Zendesk	organizations_memberships	Fivetran - native	Fivetran - native	
Zendesk	tickets	Fivetran - native	Fivetran - native	Yes
Zendesk	tickets (slas)	Python - Cron2Go	Lambda - Fivetran	Yes
Zendesk	ticket_metrics	Python - Cron2Go	Lambda - Fivetran	Yes
Zendesk	side_conversations	Python - Cron2Go	Lambda - Fivetran	
Zendesk	tickets_fields	Fivetran - native	Fivetran - native	
Zendesk	users	Fivetran - native	Fivetran - native	Yes

Documentation and Maintenance

Versioning

- Version Control Mechanism: Our Zendesk integration captures version changes using GitHub as the version control system. GitHub allows us to track changes and maintain a history of modifications made to the integration scripts and configurations.

Change Log

- Change Log Documentation: The change log for the Zendesk integration is maintained using Jira tickets. Each change, enhancement, or bug fix is associated with a Jira ticket, which serves as a reference point for tracking and documenting changes. This ensures transparency and accountability in our change management process.

Runbook

- A runbook is available for troubleshooting common issues and performing routine maintenance tasks related to Zendesk data integration.