Customer-Centric Data Operations in Energy Retail
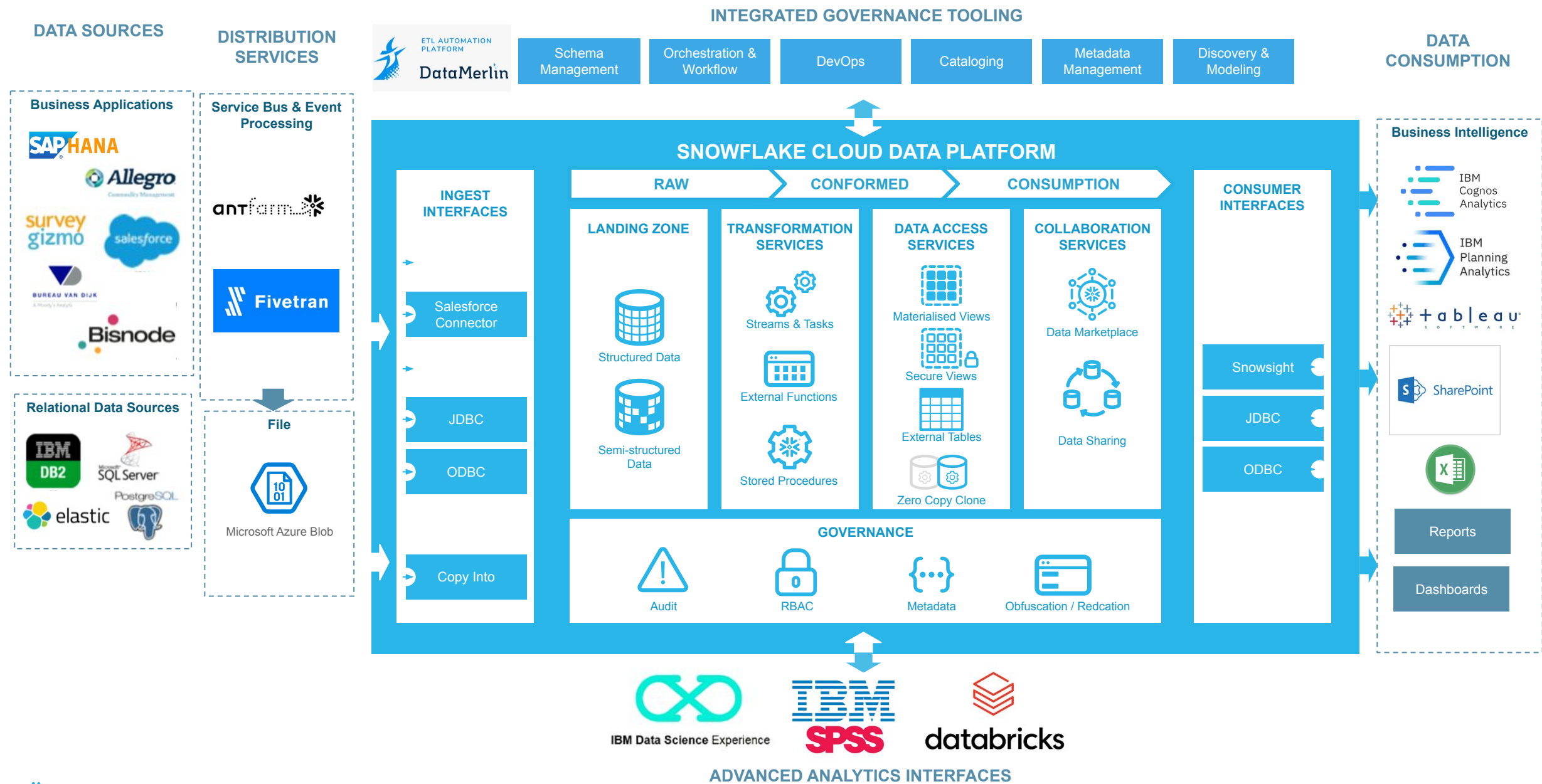
SNOWCASE

ARCHITECTURE

Snowflake, IN516HT

REFERENCE LOGICAL ARCHITECTURE

DATA SOURCES

DISTRIBUTION SERVICES

INTEGRATED GOVERNANCE TOOLING

DATA CONSUMPTION

Integrated Governance Tooling

| ETL AUTOMATION PLATFORM DataMerlin | Schema Management | Orchestration & Workflow | DevOps | Cataloging | Metadata Management | Discovery & Modeling |

Business Applications
- SAP HANA
- Allegro Commodity Management
- survey gizmo
- salesforce
- BUREAU VAN DIJK A Moody's Analytics
- Bisnode

Relational Data Sources
- IBM DB2
- Microsoft SQL Server
- elastic
- PostgreSQL

Service Bus & Event Processing
- antfarm
- Fivetran

File
- Microsoft Azure Blob

SNOWFLAKE CLOUD DATA PLATFORM

RAW → CONFORMED → CONSUMPTION

INGEST INTERFACES
- Salesforce Connector
- JDBC
- ODBC
- Copy Into

LANDING ZONE
- Structured Data
- Semi-structured Data

TRANSFORMATION SERVICES
- Streams & Tasks
- External Functions
- Stored Procedures

DATA ACCESS SERVICES
- Materialised Views
- Secure Views
- External Tables
- Zero Copy Clone

COLLABORATION SERVICES
- Data Marketplace
- Data Sharing

CONSUMER INTERFACES
- Snowsight
- JDBC
- ODBC

GOVERNANCE
- Audit
- RBAC
- Metadata
- Obfuscation / Redcation

Business Intelligence
- IBM Cognos Analytics
- IBM Planning Analytics
- tableau SOFTWARE
- SharePoint
- Excel
- Reports
- Dashboards

ADVANCED ANALYTICS INTERFACES
- IBM Data Science Experience
- IBM SPSS
- databricks

REFERENCE COMPONENT DESCRIPTIONS

Component	Description
antFarm	Lift 'n' Shift data migration solution for fast loading of data from cloud and on-premises data sources into Snowflake.
Fivetran	Cloud ETL tool for Salesforce data integration in Snowflake.
Microsoft Azure Blob Storage	Data storage used by the Snowflake.
DataMerlin	Fast and effective data warehouse automation tool that provides native support for Snowflake with SQL code generation and leverages full ETL / ELT automation.
IBM Data Science Experience IBM SPSS Databricks	Data Science platforms used for advanced analytics that make predictions about future outcomes using historical data combined with statistical modeling, data mining techniques, and machine learning.
IBM Planning Analytics	Financial Performance Management Solutions used to automate and transform planning, reporting and analysis processes. The solutions help anticipate performance gaps, analyze root causes, evaluate alternatives, and enable more effective decision making and implementation.
IBM Cognos Analytics Tableau Excel	BI Reporting tools that allow business users to explore and work with all types of data to make better decisions.