Data-Intensive Applications : build, scale, run en utilisant vos données sans complexité opérationnelle.

Bechtle-IT Forum | 13.06.2023| SwissTech Convention Center Lausanne

Maxime Le Gelard, Sales Engineer Switzerland, Snowflake
Franck Martin, Consultant Data & Analytics Solution Management 2, Bechtle Suisse

INTRODUCTION TO SNOWFLAKE

2014: MOBILIZED DATA

Snowflake busted the limitations of fixed capacity on-prem environments.

2014: MOBILIZED DATA

Snowflake busted the limitations of fixed capacity on-prem environments.

Storage and compute are decoupled. Workloads scale up and down, instantly and independently.

2018: CONNECTED DATA

The Data Cloud connected all data, regardless of cloud provider or region, bringing work to the data.

snowflake®

BECHTLE

WHAT IS SNOWFLAKE

Platform Requirements

Fast For Any Workload

Run virtually any number or type of job across users and data volumes quickly and reliably.

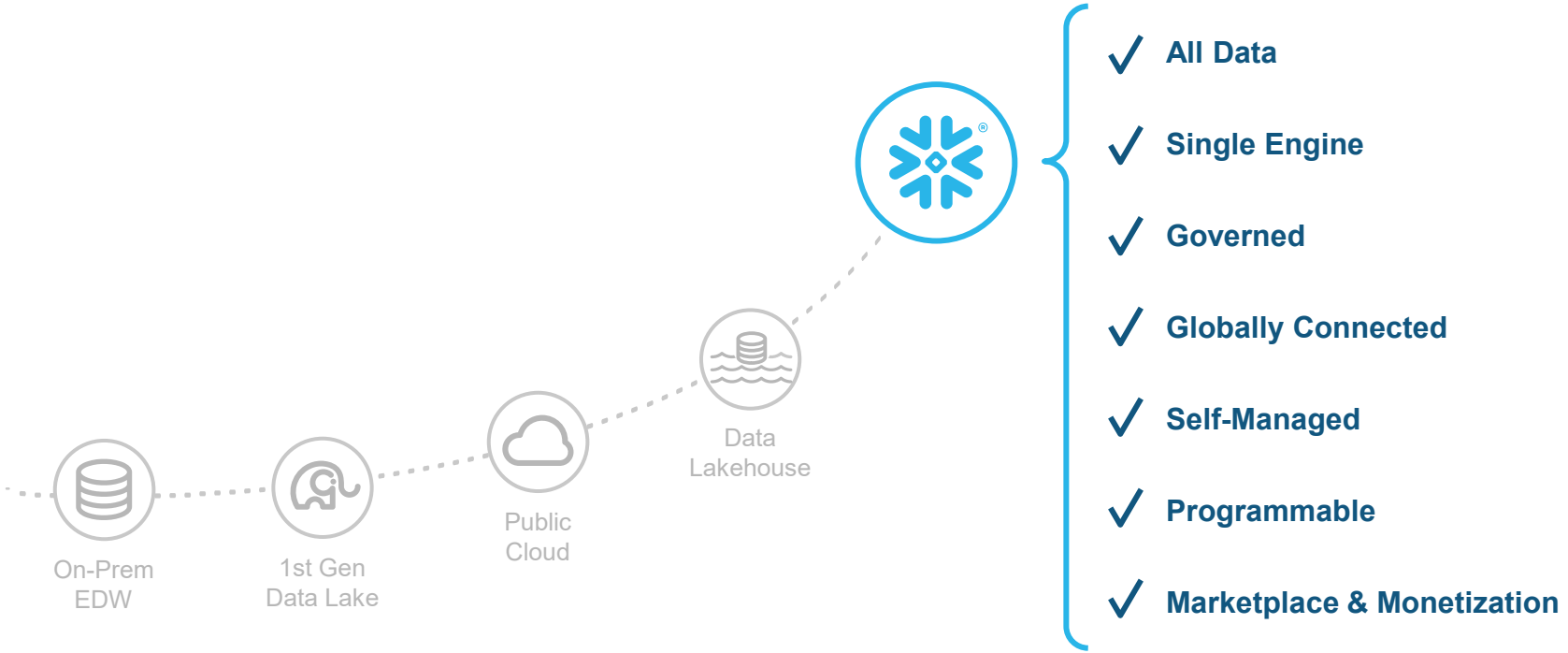
It Just Works

Replace manual with automated to operate at scale, optimize costs, and minimize downtime.

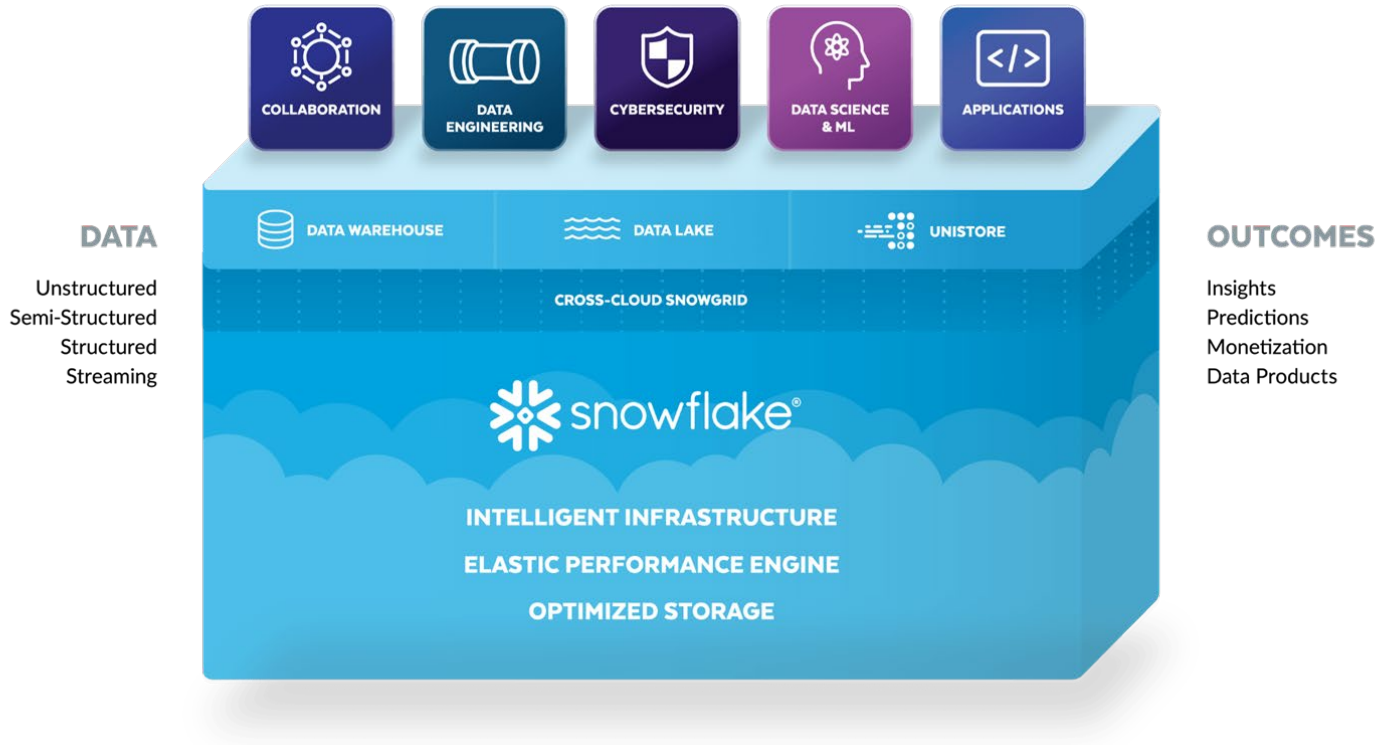
Connected to What Matters

Extend access and collaboration across teams, workloads, clouds, and data, seamlessly and securely.

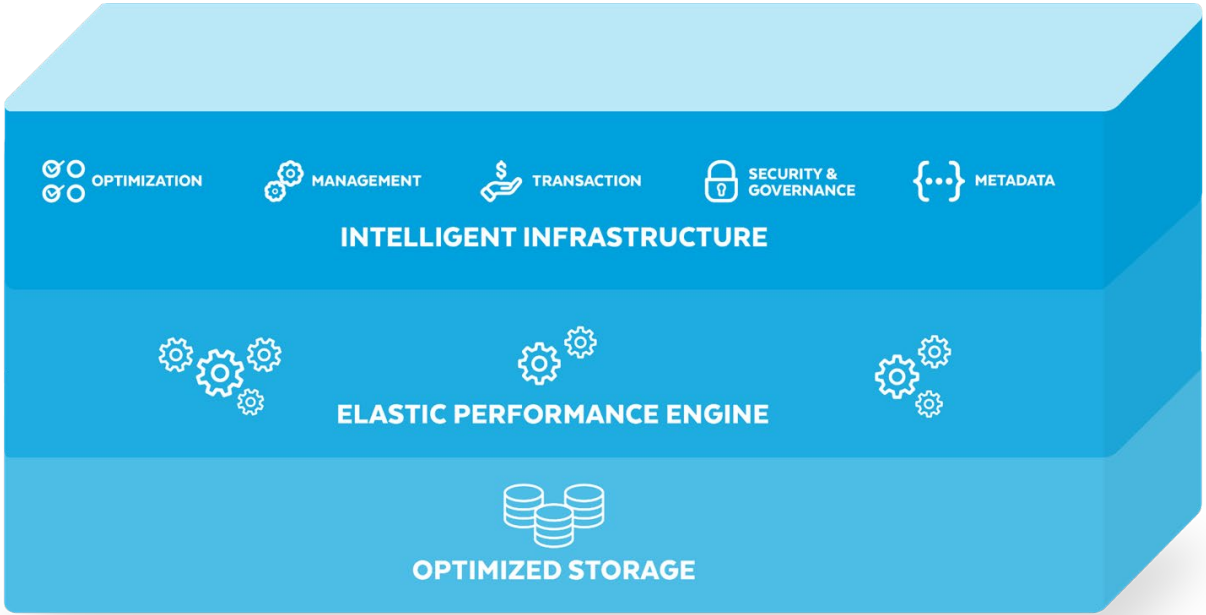
Innovation Journey to the Data Cloud



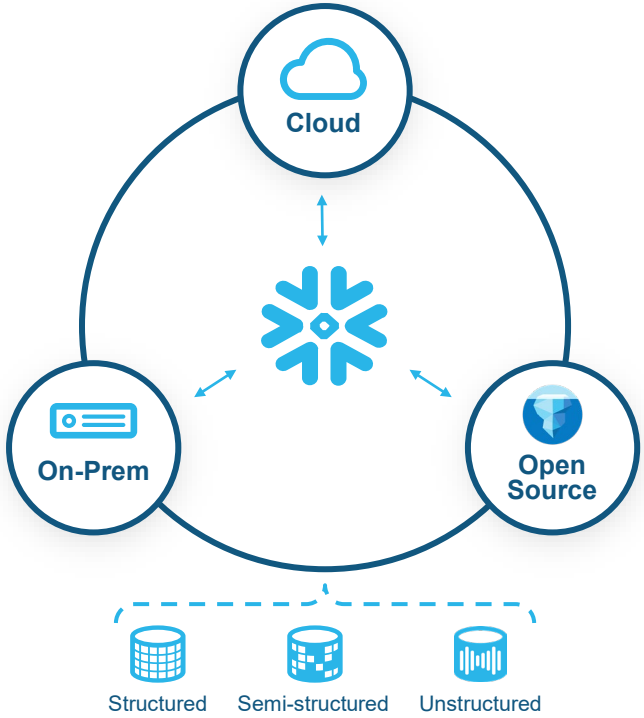
One Platform. Many Workloads.



Snowflake Architecture



Optimized Storage



Unsiloed access to your data

Unstructured, semi-structured, and structured data together with near-infinite scale.

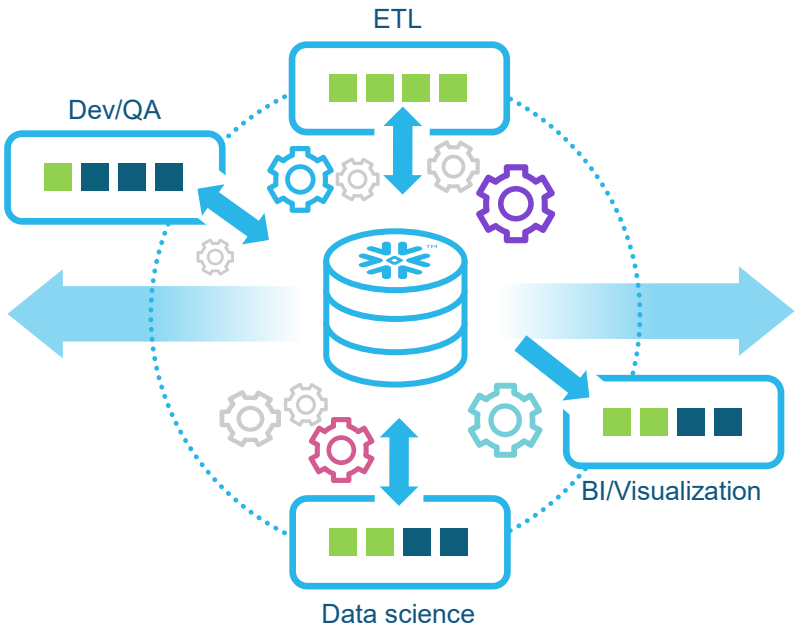
Easily manage data at scale

Fast and efficient access, optimized compression, and secure data - all automated.

Flexibility & interoperability

Work with data on-premises* or in open table formats* to remove lock-in and adapt to new data patterns.

Elastic Performance Engine



One engine for every workload

Simplify your architecture. Power complex pipelines, analytics, data science, interactive applications, and more.

Leading performance and concurrency

Fast, reliable performance for virtually all users and jobs with no tuning or contention.

Accessible & programmable

Work in SQL, Python, or Java, and run your preferred tools and libraries directly with Snowpark - without moving data.

Intelligent Infrastructure

Snowflake Managed

Maintenance & Tuning	Multi-Cluster Compute Resources
Administration	Availability
Networking & Encryption	Query Design & Tuning

Self-managed

Automate encryption, access controls, availability, tuning, maintenance, and more to keep operations simple and smooth.

Transparent improvements

Continually benefit from the latest performance enhancements and economics - no action required.

Optimized resources & costs

Only pay for what you used and get full visibility and cost governance controls to right-size costs.

The Next Wave of Innovation

2014

DISRUPT ANALYTICS

2018

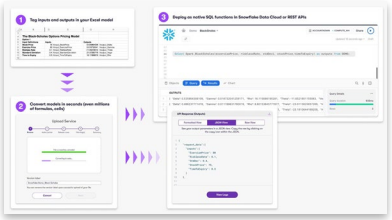
DISRUPT COLLABORATION

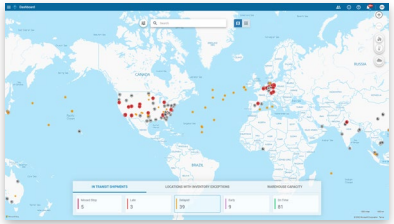
TODAY

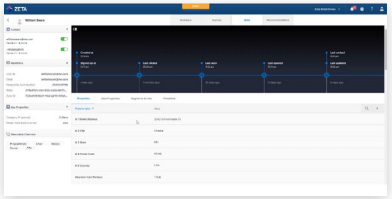
DISRUPT APP DEVELOPMENT

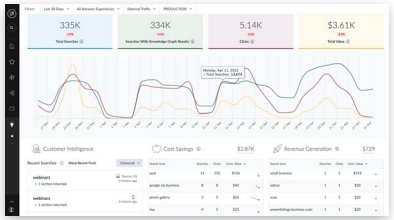
Building Apps in the Data Cloud

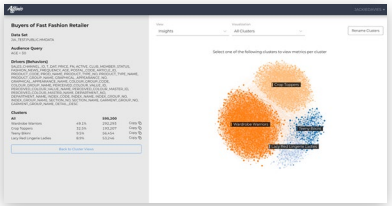
Programmability to put your data to work

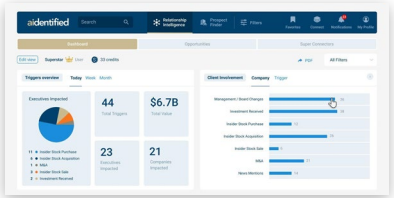












Build your way, but faster

Code directly in Python and Java with Snowpark; securely work with your favorite libraries; and rapidly prototype live applications with Streamlit.

Support dynamic demand

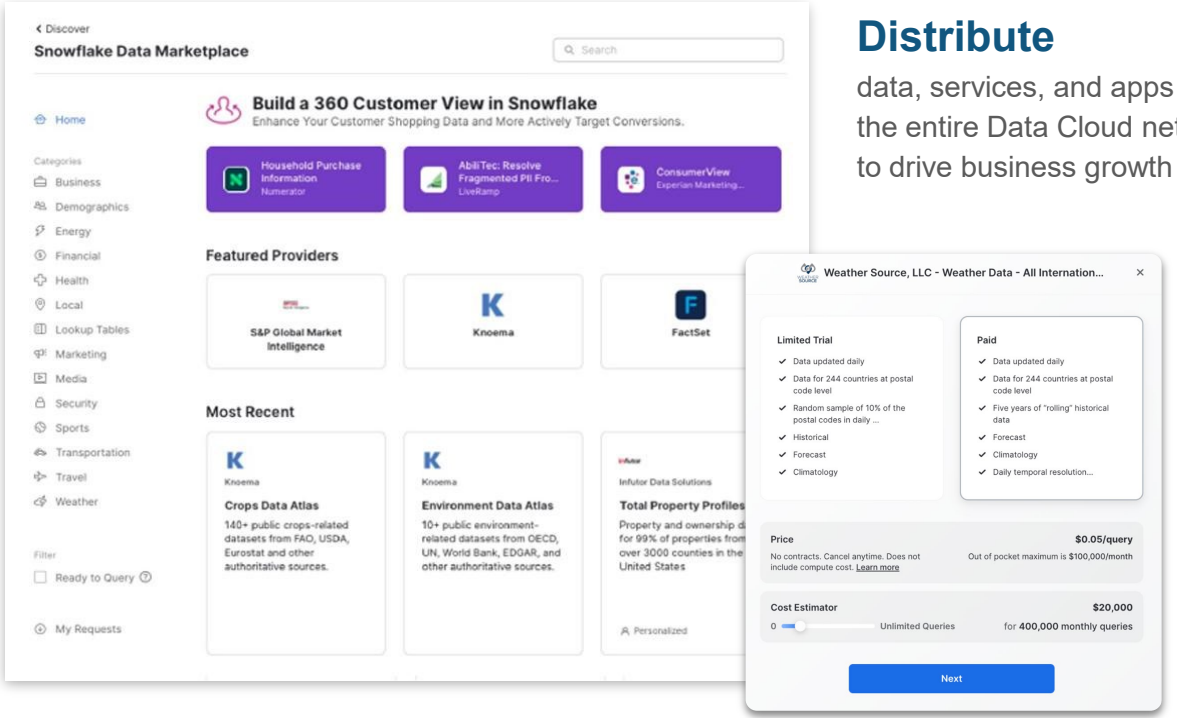
Easily scale to support growing usage without the SRE burden through the full power of Snowflake's platform.

Deliver better experiences

Unlock new ways to experience data through next-gen cleanrooms, real-time insights on transactions, and more.

Productizing in the Data Cloud

Built-in distribution and monetization



Distribute

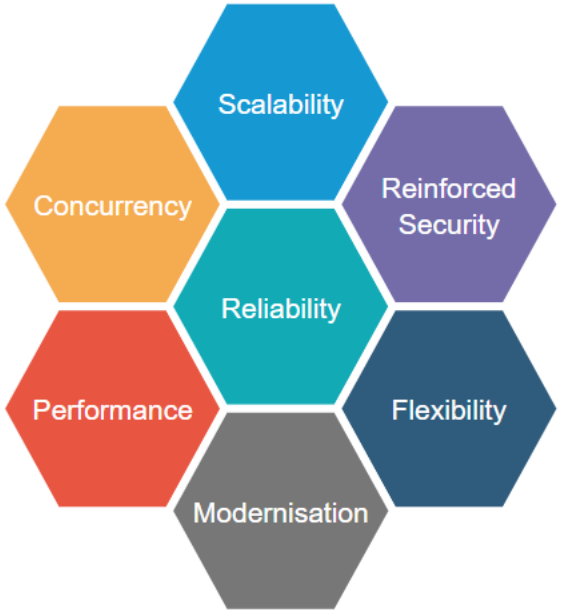
data, services, and apps to the entire Data Cloud network to drive business growth

Streamline

the buying process with flexible consumption pricing models and get full visibility into usage

EXAMPLE OF A REAL-WORLD MIGRATION TO SNOWFLAKE

Context & Expectations



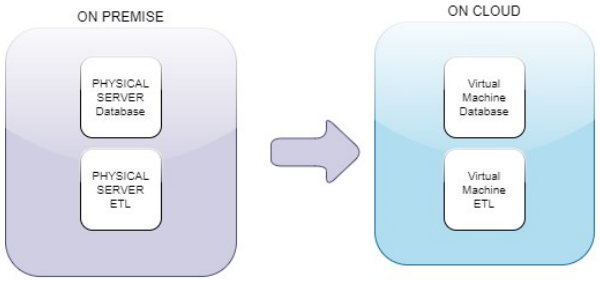
Migration of a Datawarehouse

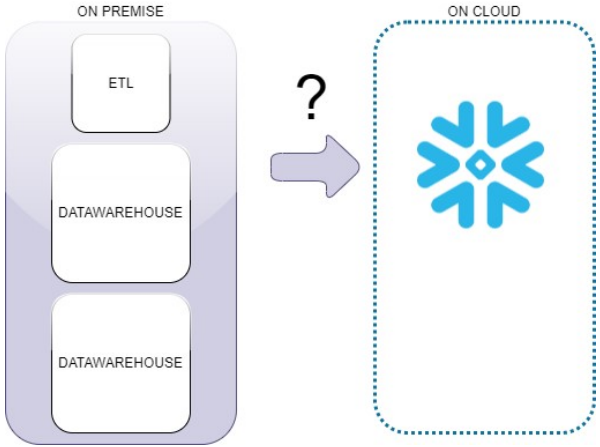
From on-premises to Snowflake, in the context of a global Cloud strategy at a multinational company.

Critical production workload

Need to rigorously plan the migration to avoid any service interruption, as data from this Datawarehouse is critical to many business users.

Migration approaches





1) Lift-and-shift approach

Migrate workloads to Virtual Machines. Simple approach, but little benefit in the long run.

2) Migration & modernization

Implies rethinking and optimizing the architecture to fully utilize a modern Cloud Data Platform (Snowflake).

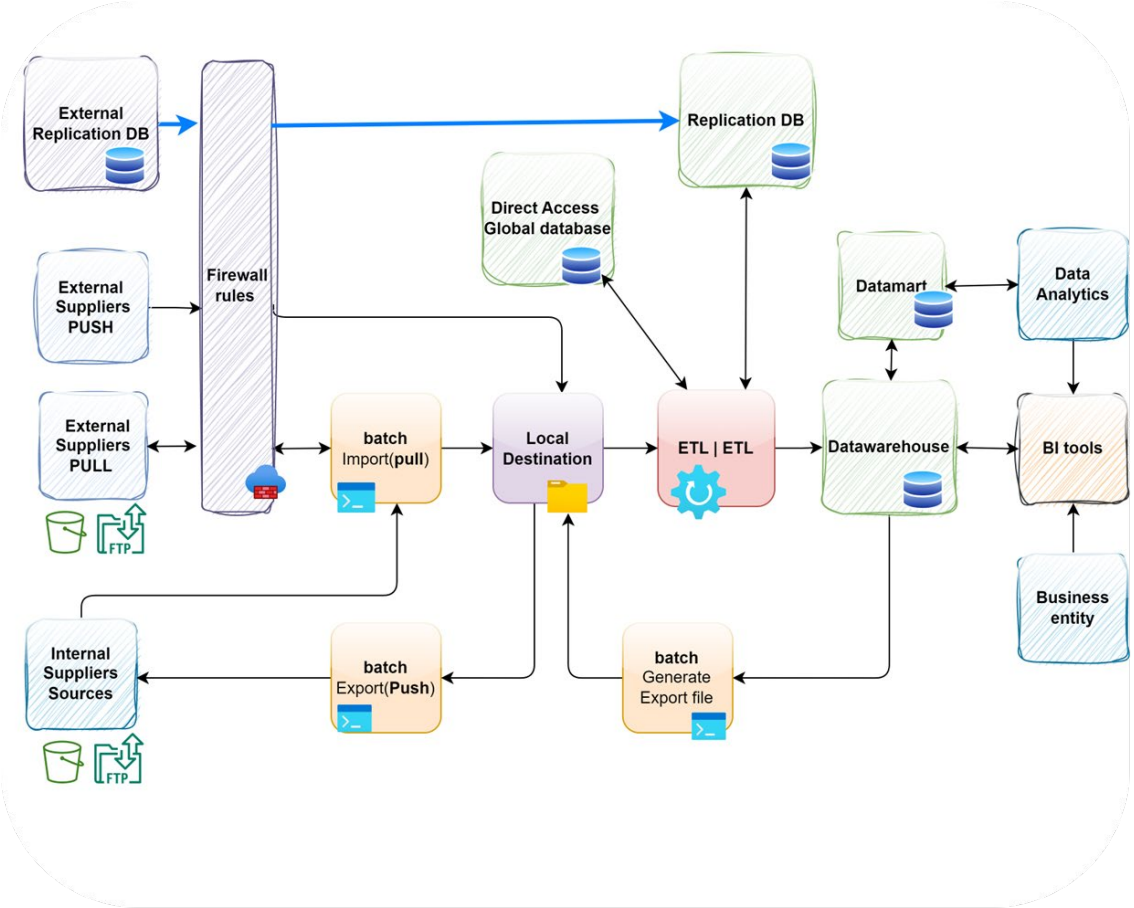
Analysis of the existing

Security constraints

Access to data: internal / external
Internal and external data providers

Functionality

Data integration
Data export
Data Warehouse
Data Mart
Business Intelligence
Middleware (Data Hub)



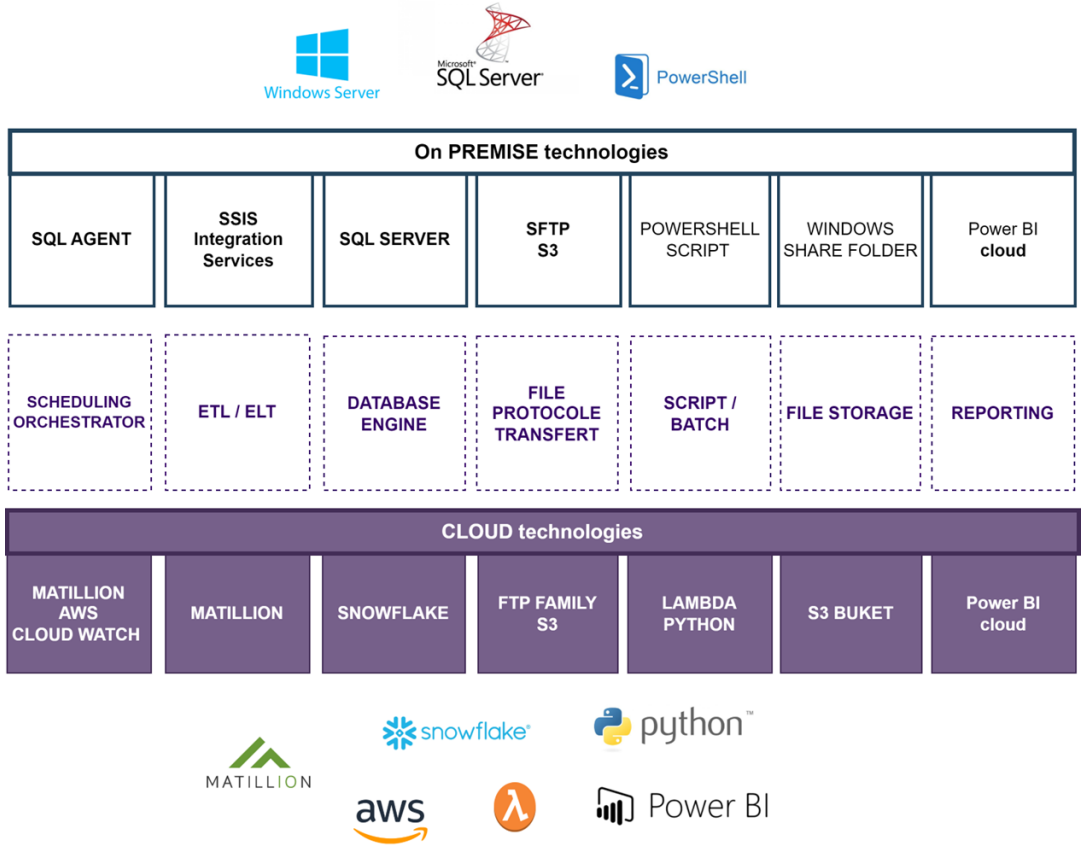
Technical scope

Training / onboarding plan

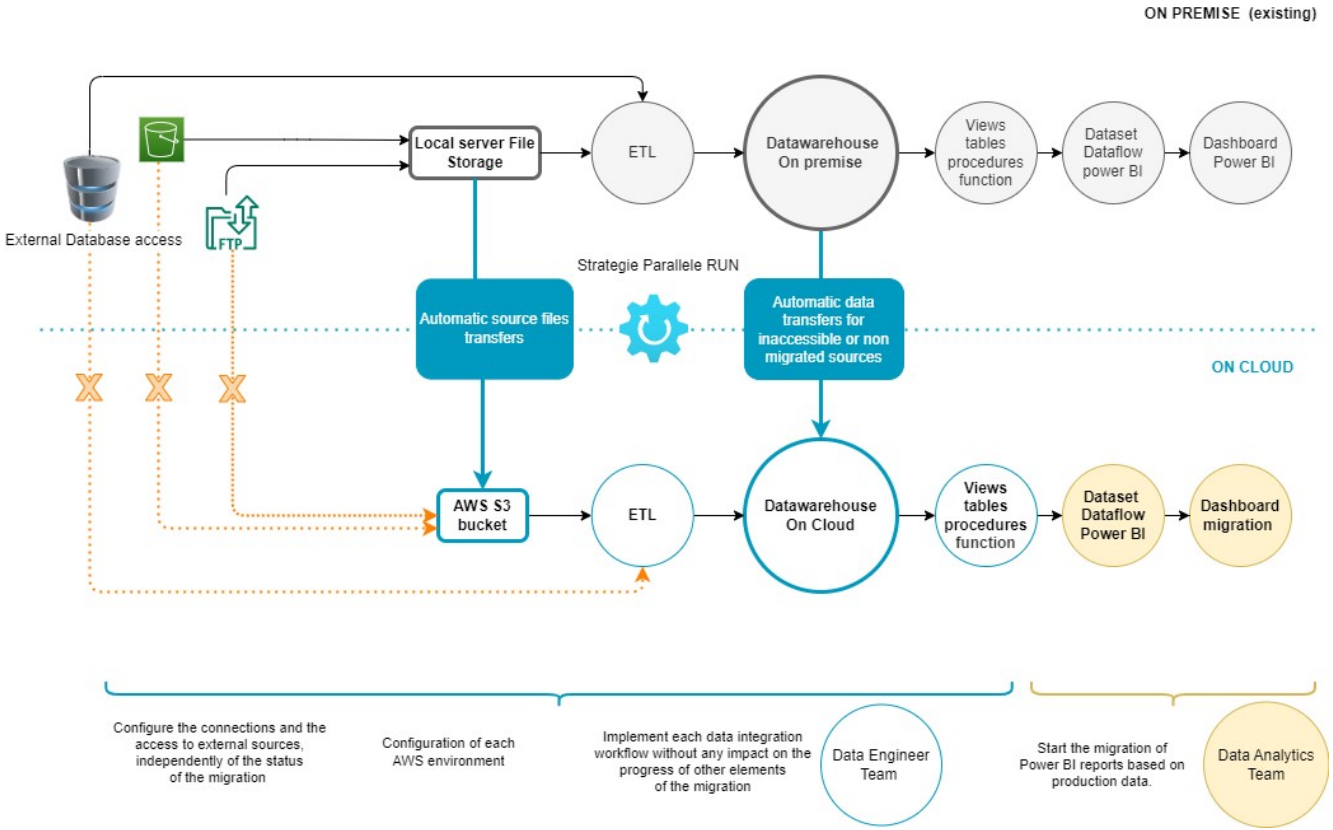
Evaluation of the required training effort

Technological choices

By the customer



Parallel run strategy



Conclusion and lessons

A strategy & detailed analysis

Are critical elements in such a project, each migration is specific to the environment / business.

Modernization

A modernization approach on a new technological basis has many benefits in the long run, but needs to be carefully planned. In a complex environment, aspects such as infrastructure configuration, security, acess, etc. need to be taken into account from the start.

Parallel Run

A parallel run strategy allows modernizing a Datawarehouse step by step. Each step can be tested and validated using production data. Data quality indicators need to be developed and tested consistently throughout the process.

Involve the business

And challenge existing solutions and processes along the way. Such a modernization is a long-term change!

Merci!

Des questions? Contactez-nous: it-forum.ch@bechtle.com

Plus d‘informations :
bechtle.com