DATA WAREHOUSE MIGRATION FROM ON-PREMISE TO CLOUD

Snowflake Vilnius Meetup

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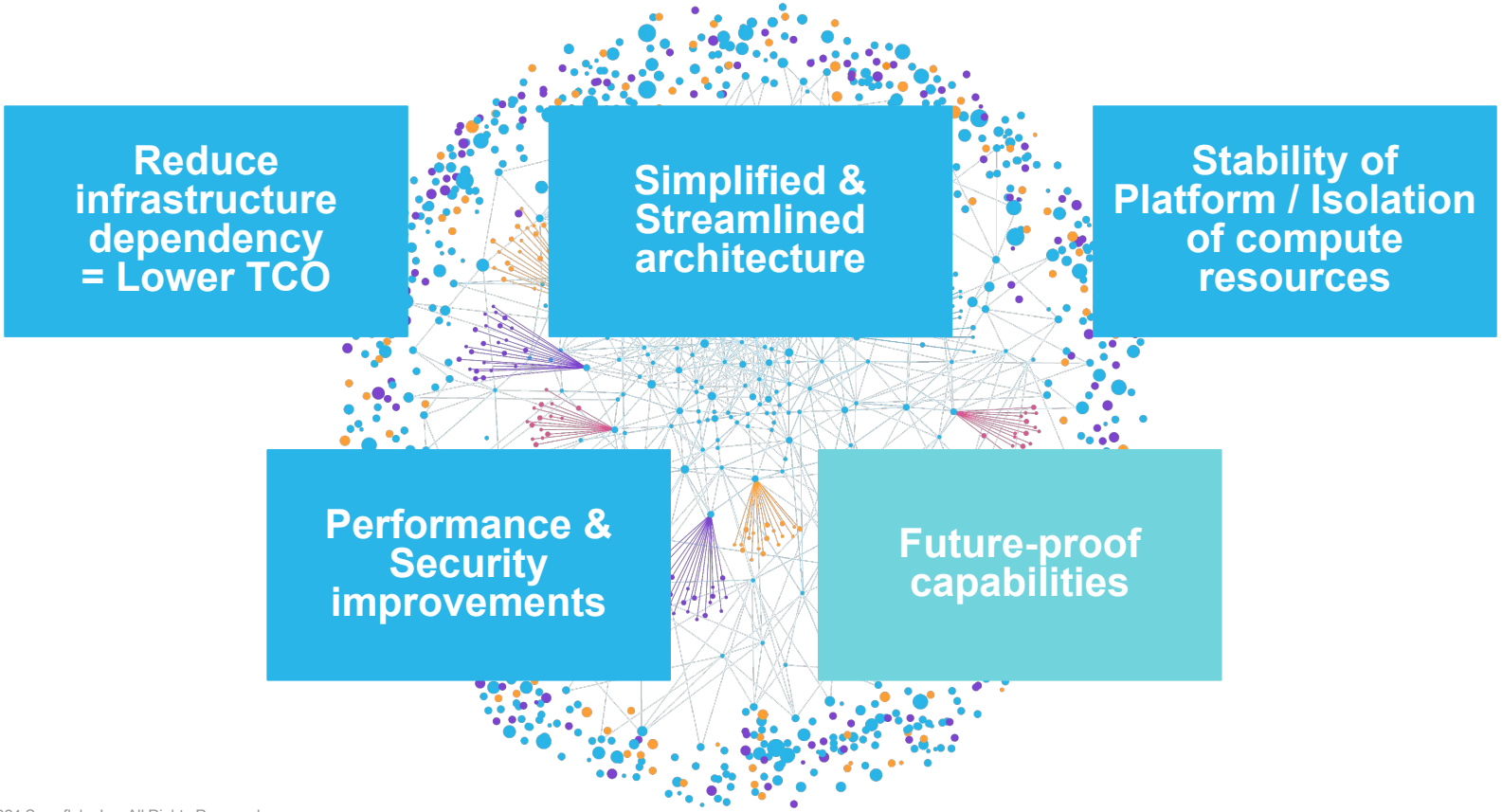
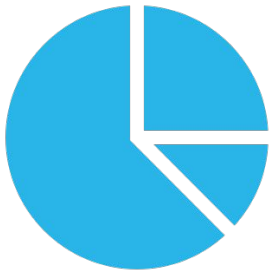
Why migrate from on-premise to cloud?



3 Questions That Should be Asked About Migration to Snowflake

What really needs to be migrated to Snowflake?



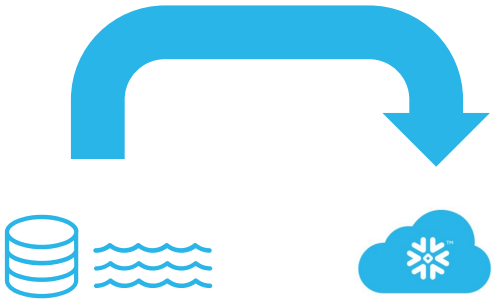
What are the common characteristics of successful migrations to Snowflake?

Which migration approach should you adopt?

Migration Approach

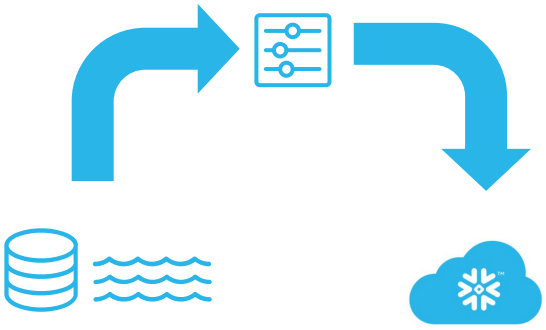
Migration Approaches

Complete Lift and Shift



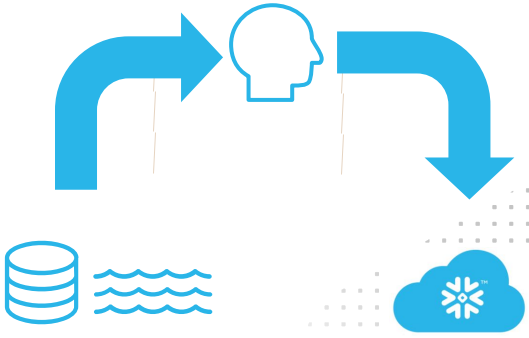
Legacy Data Warehouse / Data Lake

Pragmatic Lift & Adjust



Legacy Data Warehouse / Data Lake

Complete Redesign



Legacy Data Warehouse / Data Lake

Increased complexity and time to deliver

Lift & Shift

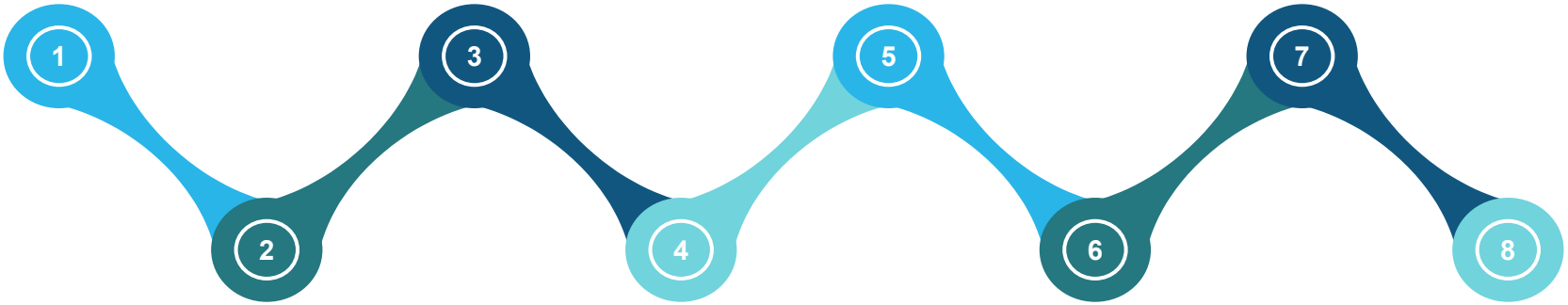
By priority or business grouping

Planning
- Inventory and dependencies
- Project and resource plan
- Kickoff migration

Data Migration
- Migrate historical data
- Unit test
- Resolve issues

Data Validation
- Freeze legacy system data
- Compare all data
- Validate data security

User Acceptance
- Stakeholders validate data and reports
- Validate SLAs and performance
- Parallel execution and approval



(Database) Code Conversion
- Convert database objects
- Unit test
- Resolve issues

Data Ingestion
- Develop or repoint pipelines
- Unit test
- Resolve issues

Reporting and Analytics
- Repoint platforms
- Unit test
- Resolve issues

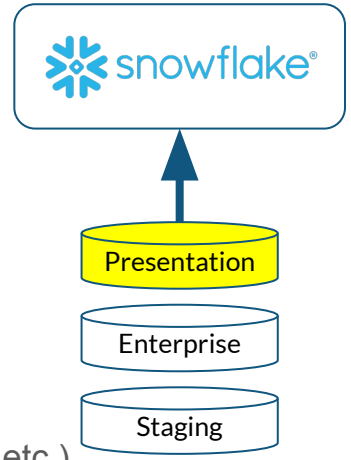
Deployment
- Final review and approval
- Operational readiness
- Migrate and turn over to Support

Program & Change Management Plus Training

Pragmatic Lift & Adjust

Common approach - Phased migration

1) Phase 1 - Benefits: better user experience
    a) start with replicating presentation layer to Snowflake
    b) Repoint BI and end user tools to Snowflake
2) Phase 2 - Benefits: modernize/migrate without disrupting users
    a) Can be 1:1 migration of data pipelines to Snowflake
    b) Can be a migration from legacy tool (like SSIS) to modern tool (like Matillion, dbt, etc.)
    c) Reimplementation of ETL processes allow for reevaluation / reengineering
3) Final phase
    a) Run old and new system in Parallel, until new setup has been validated
    b) Hypercare
4) Decommission old system



Key Risks & Mitigations

Risk	Mitigation
Solution Complexity : Legacy solution + Lack of Snowflake Understanding	**Knowledge Transfer :** Professional Services Best Practices
Inheriting Design Compromises : Migrating sedimentary solutions and poor design decisions	**Pragmatic Design :** Re-design or migrate architecture components
Technology Trap : *“Pushing a round peg in a square hole”*	**Understand :** Legacy Platform and Snowflake differences. Use Best Practice. Document and socialize *lessons learned* as you go.
Increased (hidden) Technical Debt : *“Kicking the can down the road”*	**Plan to refactor** : Document compromises. Accept or plan to refactor.

Snowflake Engagement Approach

Step 1

SnowConvert - Code Conversion Analysis

- Tables
- Views
- Functions
- Procedures
- Scripts
- ETL Jobs

FREE Automated code analysis and cost estimate for specific systems to understand if there are any major functional issues with moving the code base to Snowflake

Step 2

Migration Readiness Assessment

- Database Code
- Data Migration
- Data Ingestion
- Reporting & Analytics Tools
- Data Validation
- Environments & Security
- Workload Optimization
- Project Management

Two week engagement to scope and estimate effort for all aspects of the migration plan.

Assessment

Step 3

Migration Execution

- Required Resources
  - Snowflake
  - Customer
  - System Integrator
- Lift & Shift
- Data Replication
- Parallel Run

Successful migrations will require the involvement of customer resources that know the data and the business processes, Snowflake PS expertise and automation, and System Integrators to help with testing and validation efficiency

Migration

Step 4

Post-Migration

- RSA Engagement
- Model Optimization
- ETL Modernization
- New Use Cases, AI, ML

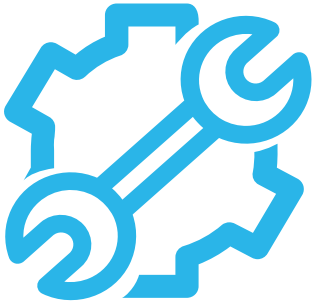
Post migration Snowflake can help focus on inefficient areas of the data model that have been lifted and shifted to Snowflake which can be improved to help reduce consumption costs. Additionally ETL may be modernized to an ELT process more favorable to the cloud

Migration Expertise

Migration Team Experience

35+ Snowflake Migration Architects

150+ Migration Readiness Assessments Performed



300+ Million Lines of Analyzed & Converted Legacy Code

Over 100 successful migration engagements.

Support for a Migration to Snowflake

Documentation

Migration Reference Manuals available for most large legacy platforms.

Code Conversion Services

Snowflake has automation tools to address converting database objects, SQL, database scripts and ETL technologies.

TERADATA. ORACLE NETEZZA

Informatica Datastage Microsoft SQL Server

Not the full list

Migration Services

Professional Services has a scalable, repeatable methodology and tools to help our customers with their migration to Snowflake. In addition, Resident Migration Architects are available to help augment your project team.

Implementation & Solution Partners

Our Snowflake Solution Partners have experience migrating customers from other Data Warehouse platforms to Snowflake.

Migration Reference, Documentation & Tools

What next?

- Snowflake Migrations Master Class - online videos

Tools, Reference, Documentation

- Spark/pyspark — Snowconvert - Convert from Spark to Snowpark (free assessment)
- Relational DBs — Snowconvert - Convert from RDBMS to Snowflake (free assessment)
- Oracle — Oracle to Snowflake Migration Kit
- SQL Server — SQL Server to Snowflake Migration Reference
- Teradata — Teradata to Snowflake Migration Reference - Kit

Questions?

Thank You!