



# Lab: Data Warehouse Modernization & Migration to Amazon Redshift

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# AWS Data Migrations: Broadest Toolkit

## Easy, Powerful Tools for Migrating Data

AWS provides the broadest range of tools for easy, fast, and secure data movement to and from the AWS cloud



Amazon S3  
Transfer  
Acceleration



AWS  
Snowball



Database  
Migration  
Service



AWS SCT



ISV  
Connectors



Amazon  
Kinesis  
Firehose



AWS Direct  
Connect



AWS Storage  
Gateway

# What is the Amazon Redshift Service?



*Not a standalone data warehouse, but a data warehouse that seamlessly extends to the data lake to keep data “free”*

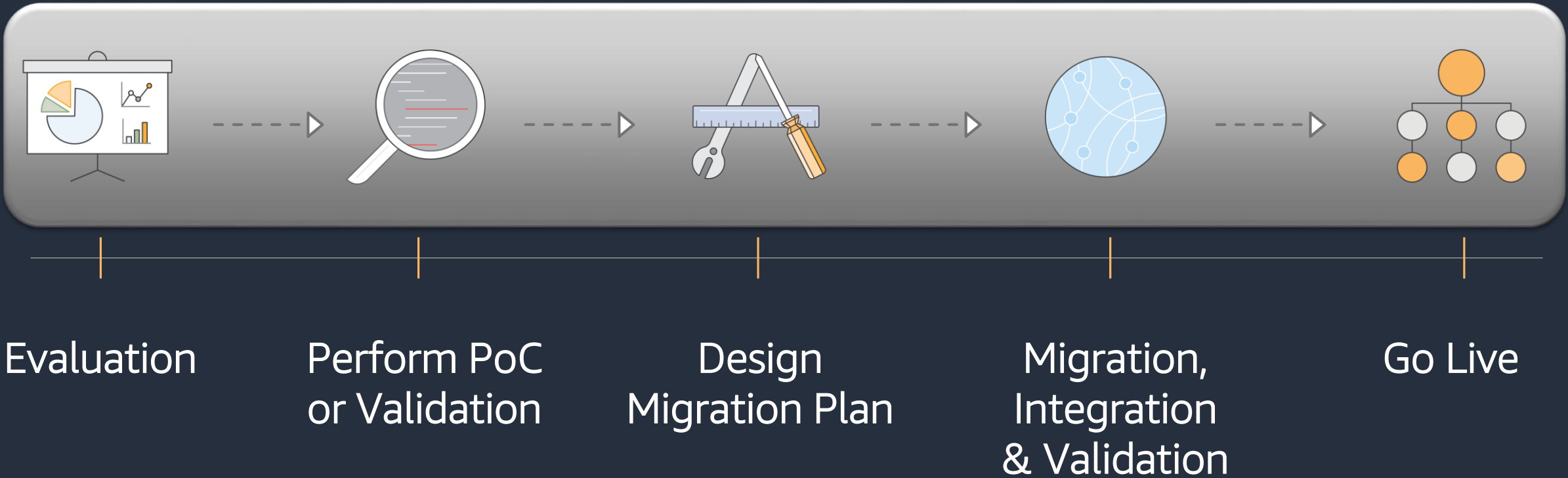
Fully Managed	Automated maintenance & workload management; cost-effective cloud data warehouse	Scale	Query GBs to EBs; auto scaling; independent compute/storage scaling
Superior Speed	Up to 16x faster than competitors; extensive machine learning based optimizations and features	Highly-rated & Most Popular	Over 18k deployments; highly-rated by Gartner & Forrester
Highly-resilient	Service SLA: 99.9%	RDS and Data Lake Integration	Query data in-place in your data lake and RDS; ACID and ANSI SQL
Secure	End-to-end encryption; SSO; compliance with SOC 1/2/3, HIPAA, FedRamp & more	Commitment to Open Formats	Import/Export Parquet & CSV; Query ORC, Avro, JSON, ...





# Amazon Redshift Migration Process

Five key phases in the data migration process



# Migration using AWS Schema Conversion Tool



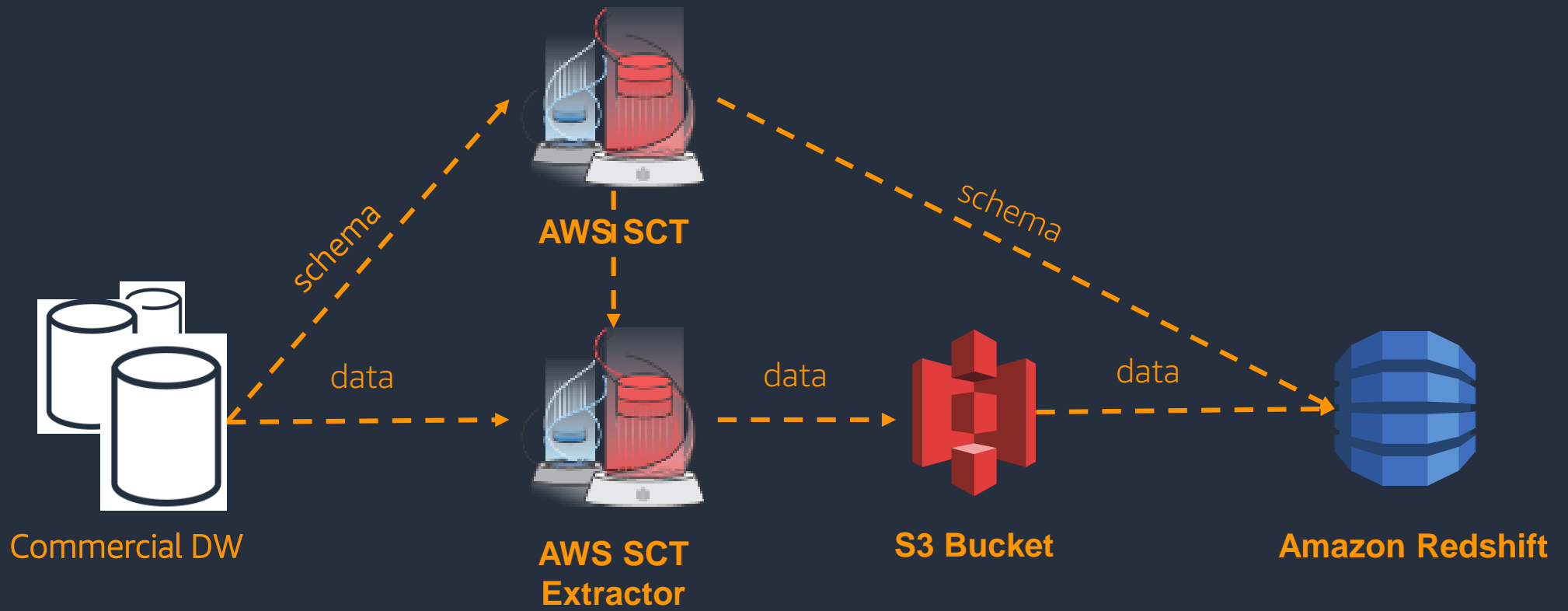
NETEZZA

TERADATA

VERTICA

ORACLE

Greenplum



# Migration using AWS Database Migration Service

## 1. Non-Relational Databases



## 2. Relational Databases

ORACLE



## 3. Other sources



Amazon S3

“AWS Database Migration Service is the **most impressive migration service** we’ve seen.” **Gartner**



AWS DMS



Amazon Redshift

**DMS usage is free for 6 months**

For more information: <https://aws.amazon.com/dms/free-dms/>

# References:



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[how-to-migrate-from-ibm-netezza-to-amazon-redshift-with-no-downtime](#)
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[https://aws.amazon.com/blogs/database/how-to-migrate-your-data-warehouse-to-amazon-redshift-using-the-aws-schema-conversion-tool-data-extractors/](#)
- [https://docs.aws.amazon.com/SchemaConversionTool/latest/userguide/agents.dw.html](#)
- DW Migration using DMS:  
[https://docs.aws.amazon.com/dms/latest/userguide/CHAP\\_Target.Redshift.html](#)
- Migrate an Oracle database to Amazon Redshift using AWS DMS and AWS SCT:  
[https://docs.aws.amazon.com/prescriptive-guidance/latest/patterns/migrate-an-oracle-database-to-amazon-redshift-using-aws-dms-and-aws-sct.html](#)
- Github Lab on On-Premises DW to Amazon Redshift with AWS SCT  
[https://github.com/wrbaldwin/da-week/tree/master/Labs/DW-Migration-to-Redshift-using-SCT](#)



# Thank you!