AWS re:Invent

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DAT211

What's new with AWS DMS

John Winford
Sr. Manager – Database Services
AWS

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Agenda

The three W’s

Migration phases

Our journey to the solution

How we solved the problem

Product demonstration

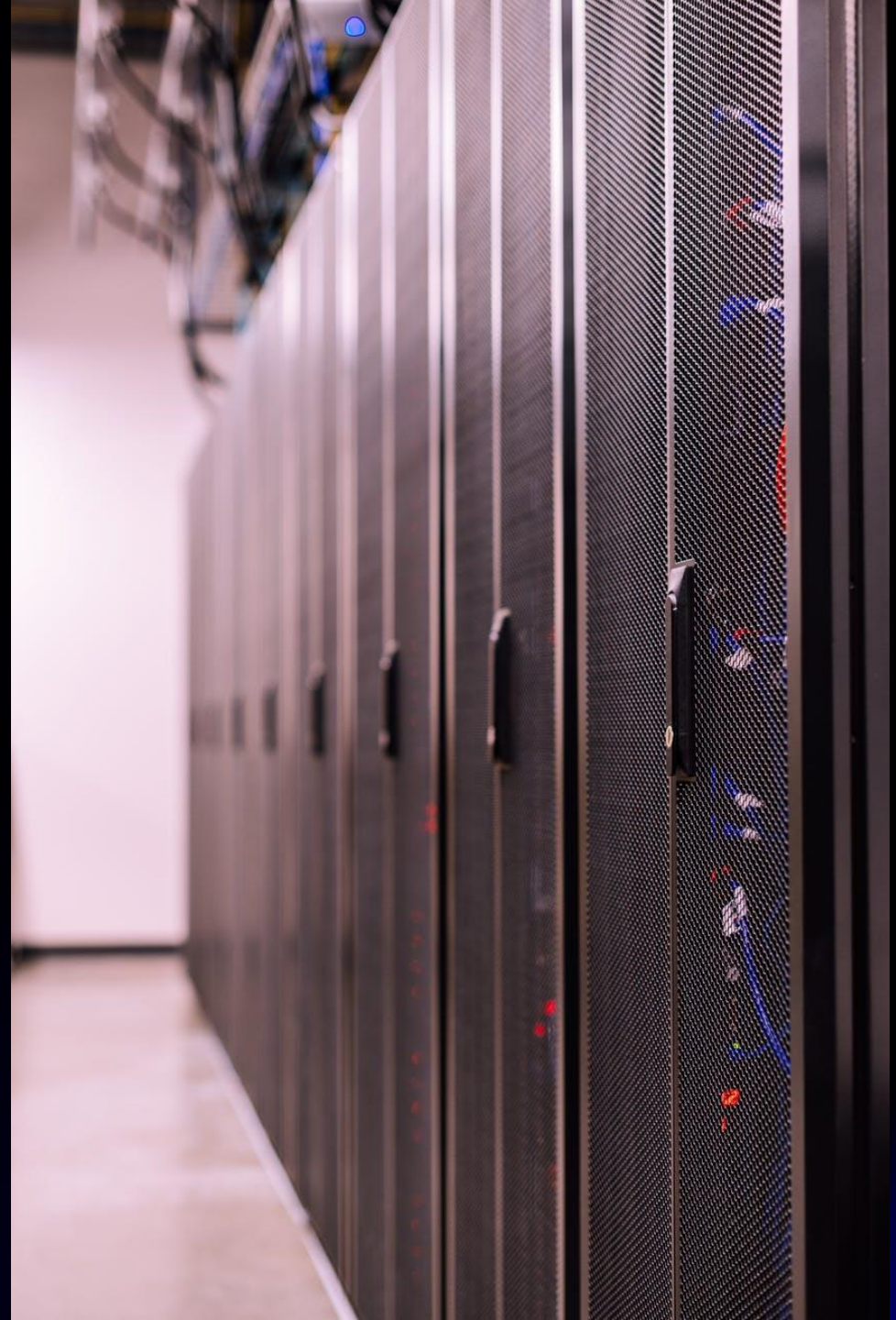
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The three W’s

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What?

- On-premises and data center environments for migration
- Databases and analytics systems
  - Different engines
  - Different versions
  - Different environments
- Analytics workloads



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Why?

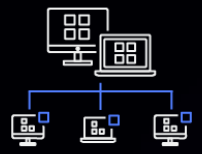
- Drivers for a migration
- Current environment snapshot
- Do you know what you can migrate to?



Infrastructure



Cost optimization



Scalability



Innovation



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IDC business impact analysis for Amazon RDS

Manage

60%

more databases per DBA

Deploy

86%

faster

97%

less unplanned downtime

$37.4K

total economic savings per DB/year

Productivity

Automation of mundane activities resulted in a 40% increase for strategic initiatives and innovations

Agility

On average, customers increased developer productivity by 42%, supporting faster delivery and new applications

Risk

IDC identified the added benefit of 34% less database latency and 21% faster queries for optimal user experience

Reduce Cost

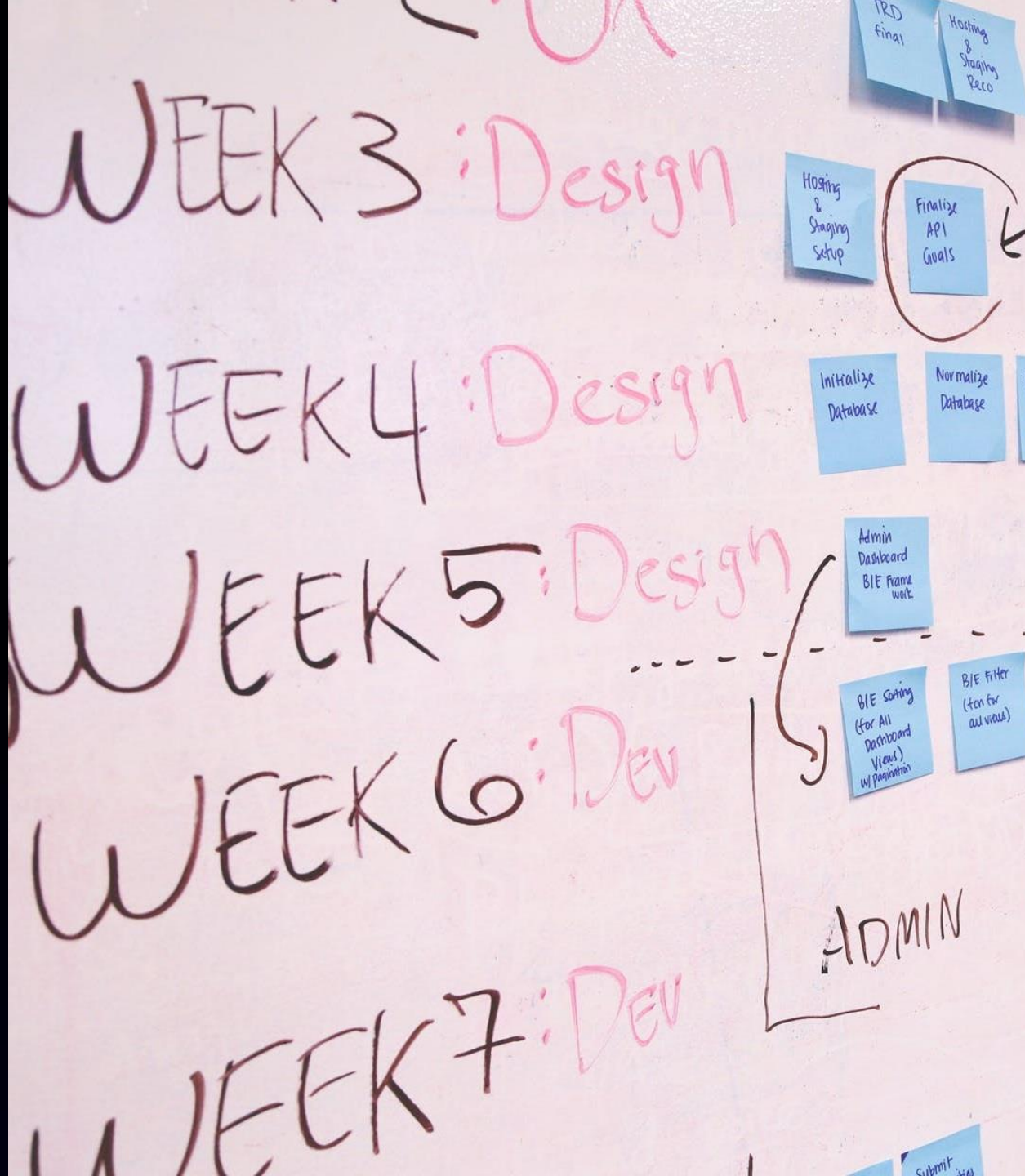
Customers achieved a 39% lower cost of database operations and staff time with a 264% ROI over three years

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Who?

- Can everyone plan a migration?
- Do you have the skills?
- Expensive consultants
- Time to plan
- Understanding options
- Getting a handle on costs



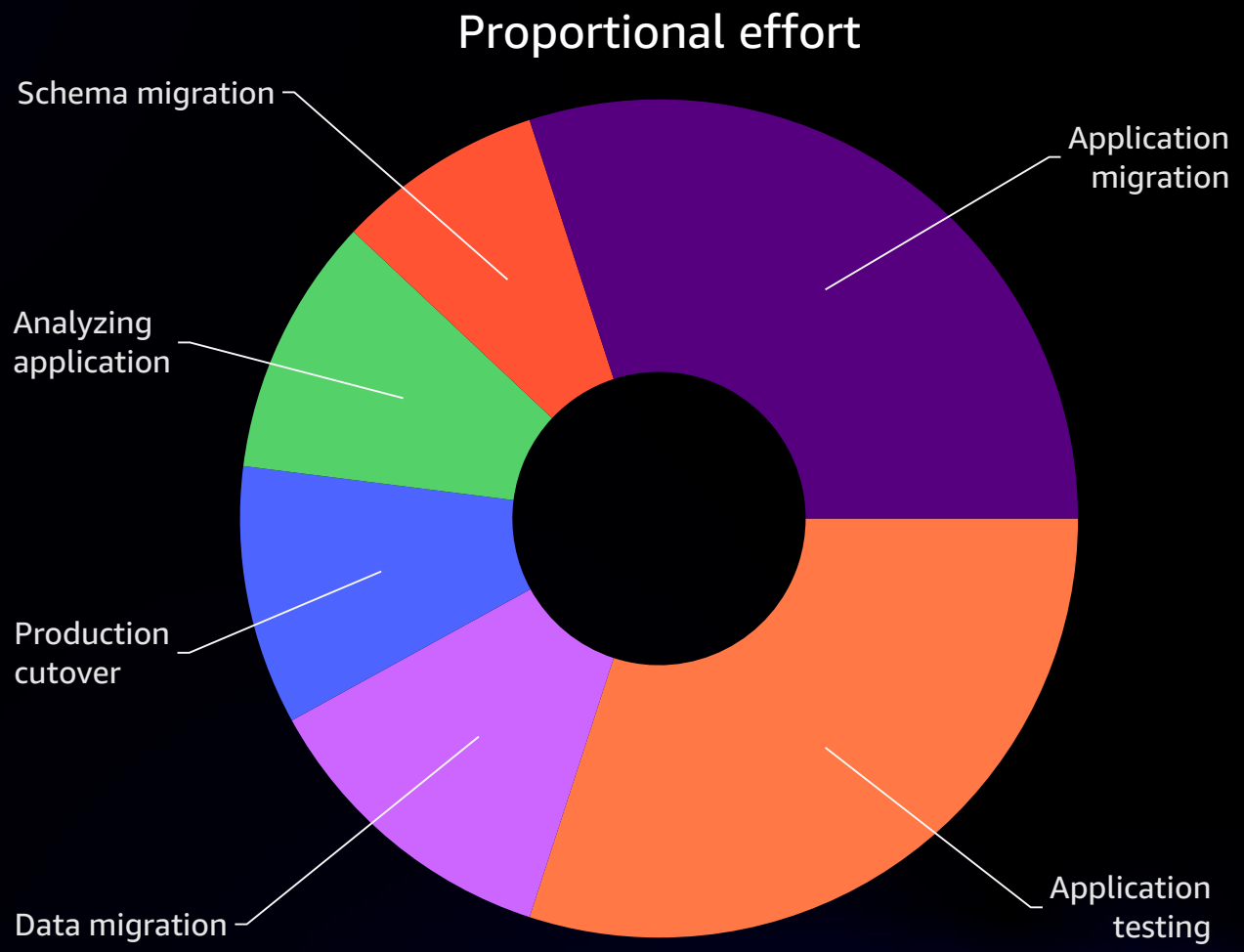
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Migration phases

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Phases of a migration

- Analyzing application
- Schema migration
- Application code migration
- Application integration testing
- Data migration
- Production cutover



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Customer journey

Discovery

What do I have?


Manual inventory

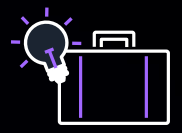

Report out


Traditional CMDBs

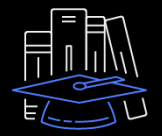

Manual/Excel

Learn and plan

What will it look like?


Business case

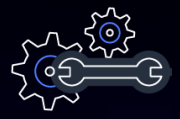

Migration plan

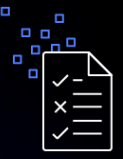

Education

Migrate

Workload migration


Migrate


Update


Track

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AWS journey

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AWS Database Migration Service (AWS DMS)



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AWS Schema Conversion Tool (AWS SCT)

Modernize

Modernize your databases

Supports the conversion of your Oracle Database, Microsoft SQL Server, Azure SQL, MySQL, MariaDB, PostgreSQL, SAP ASE, or IBM Db2 for Linux, Unix, and Windows (Db2 LUW) databases to PostgreSQL, MySQL, or Amazon Aurora



MySQL



PostgreSQL

Modernize your data warehouses

Supports the conversion of your Oracle Data Warehouse, Microsoft SQL Server, IBM Netezza, Greenplum, Vertica, or Teradata data warehouses to Amazon Redshift



Amazon Aurora



Amazon Redshift

Modernize other systems

Supports the conversion of your Apache Cassandra systems to Amazon DynamoDB, or streamline your SQL Server migration to Babelfish

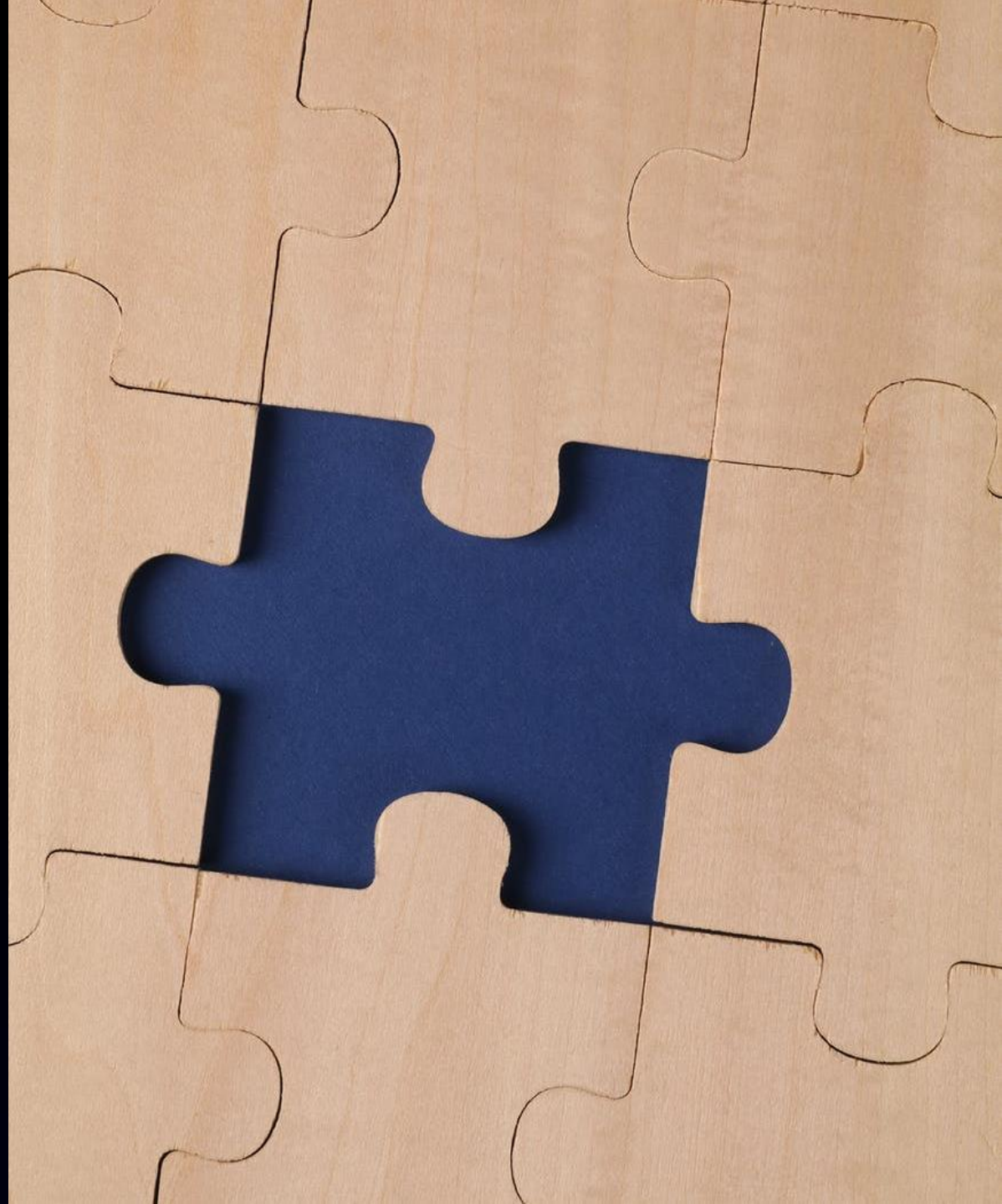
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Something is missing . . .

We can convert . . .

We can migrate . . .



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Introducing AWS DMS Fleet Advisor

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DMS Fleet Advisor

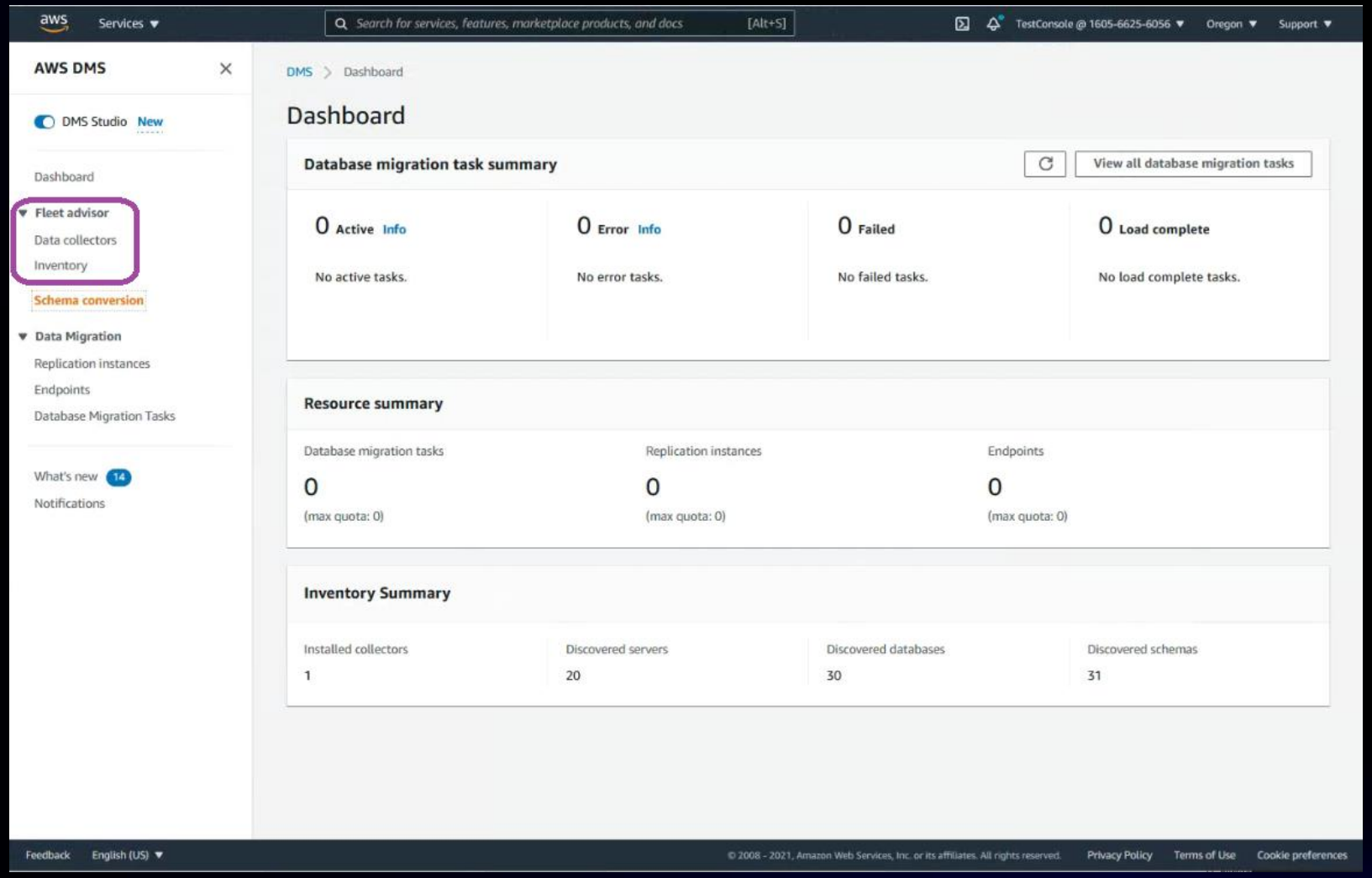
- Discover and inventory
- Collect metadata
- Gather usage data
- Analyze infrastructure
- Identify migration candidates
- Develop a business case
- Fully integrated into AWS DMS



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DMS Fleet Advisor

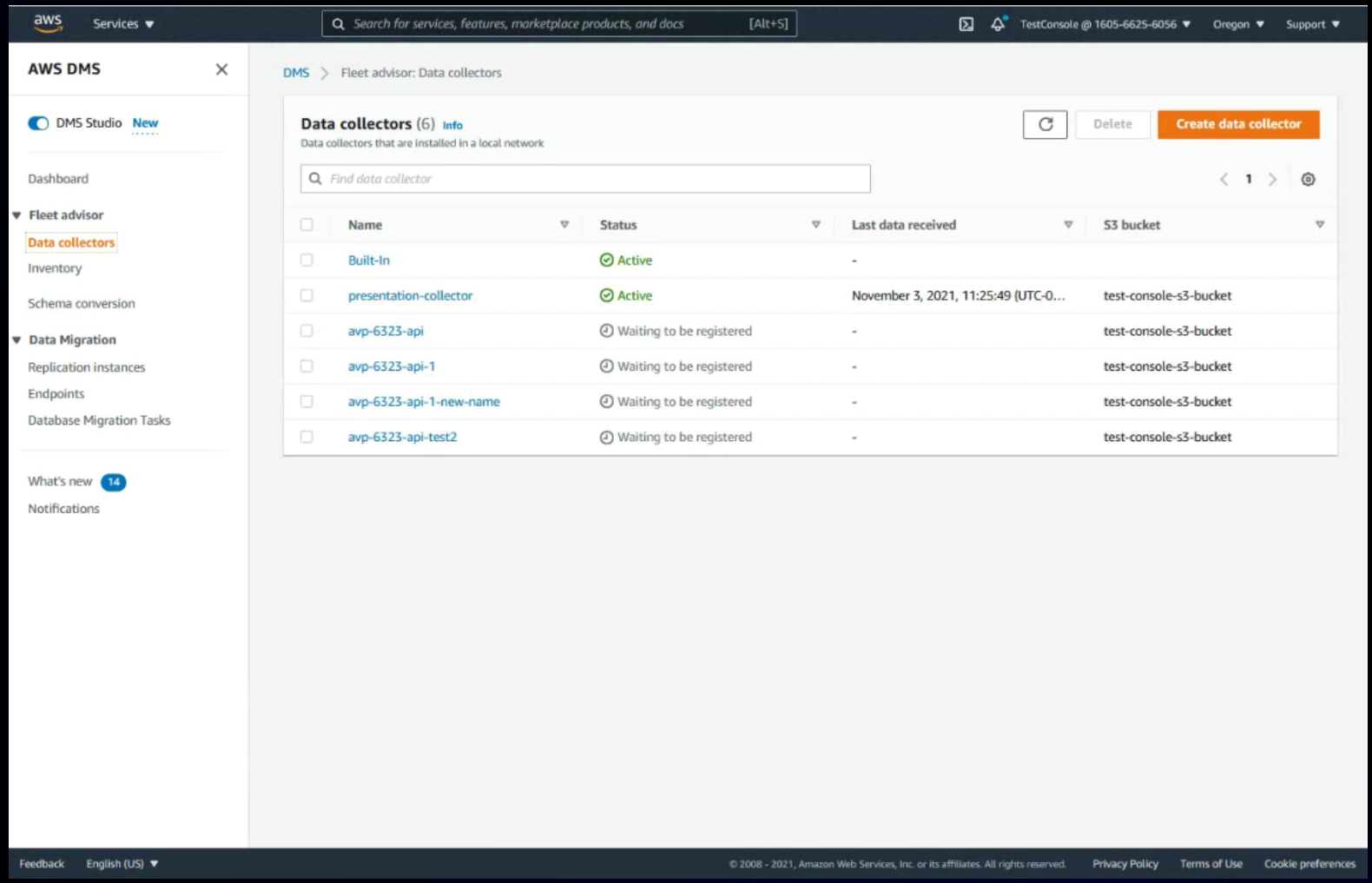
Fully integrated
into AWS DMS as part of
the new “Studio” console



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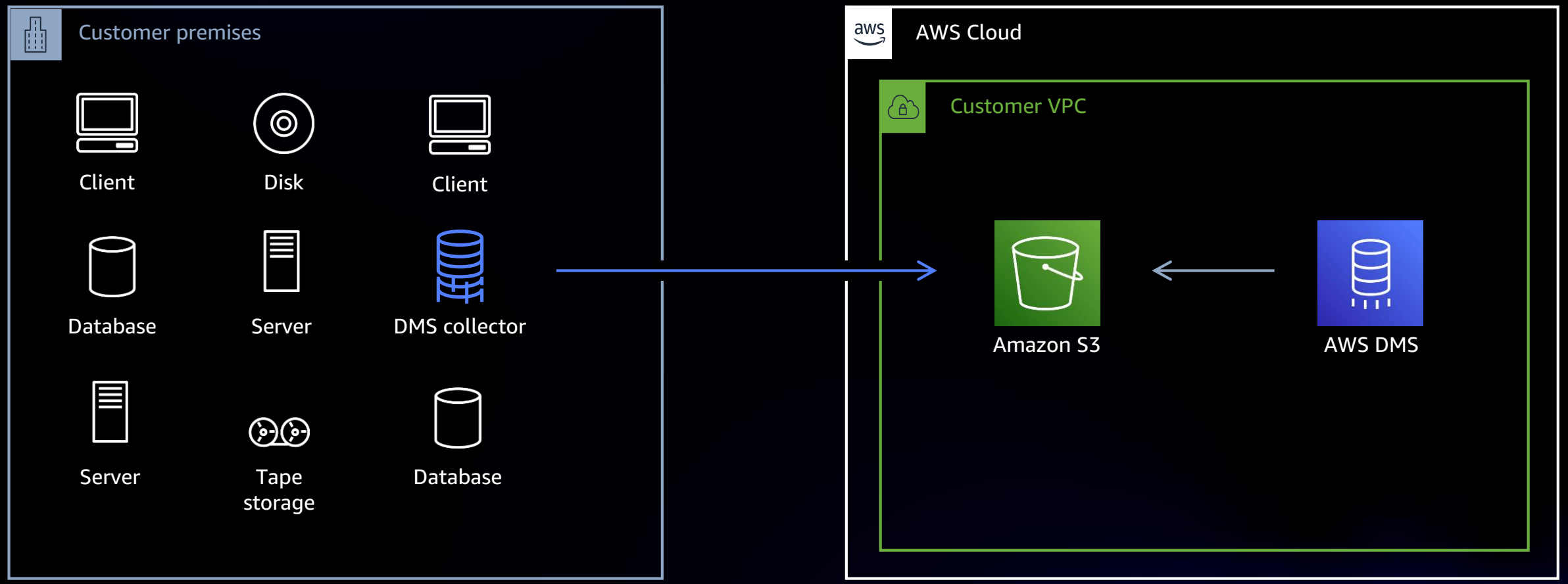
A single collector gathers information from the on-premises network



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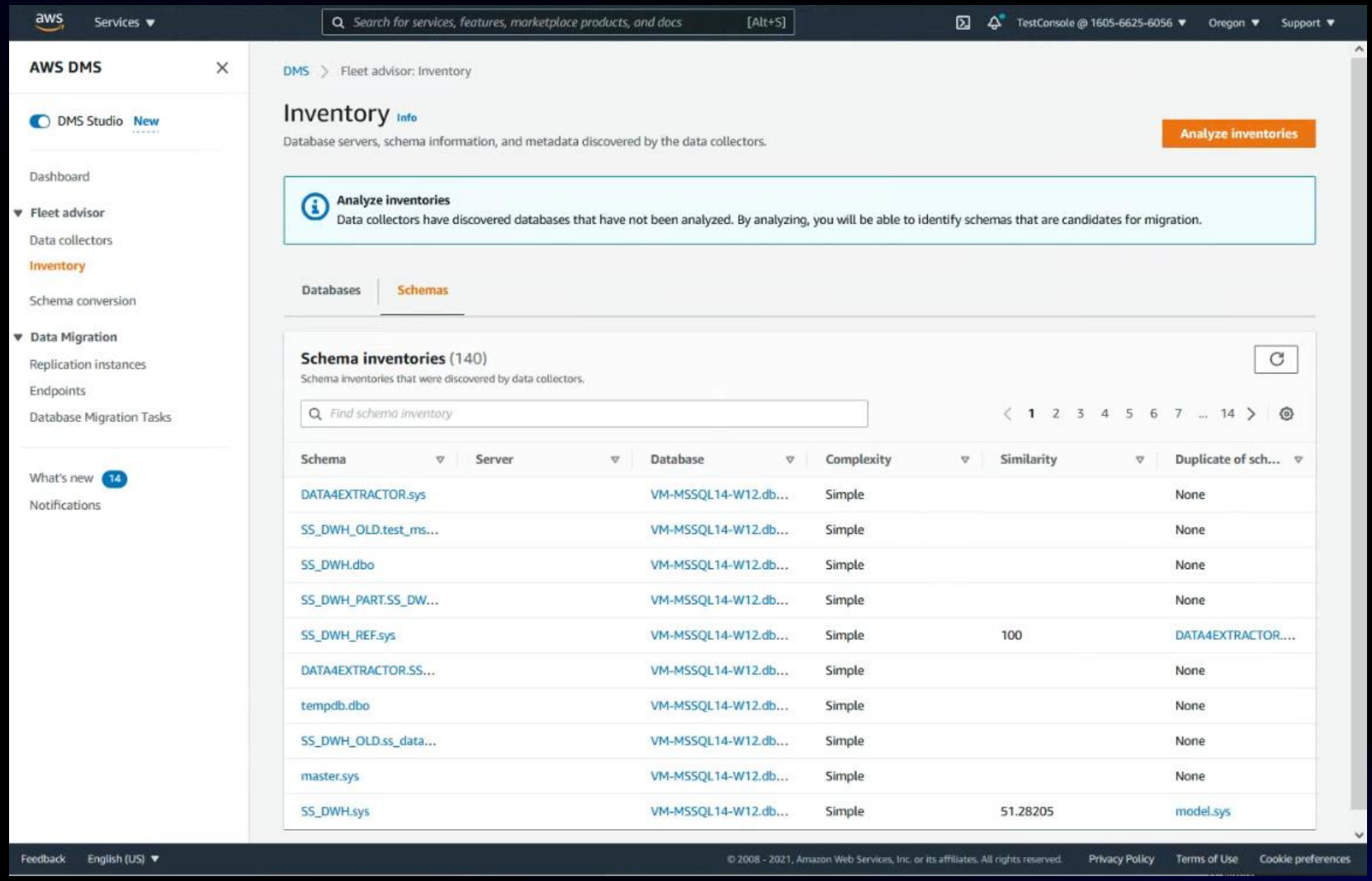
HIGH-LEVEL ARCHITECTURE



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INVENTORY RESULTS BY DATABASE AND SCHEMA



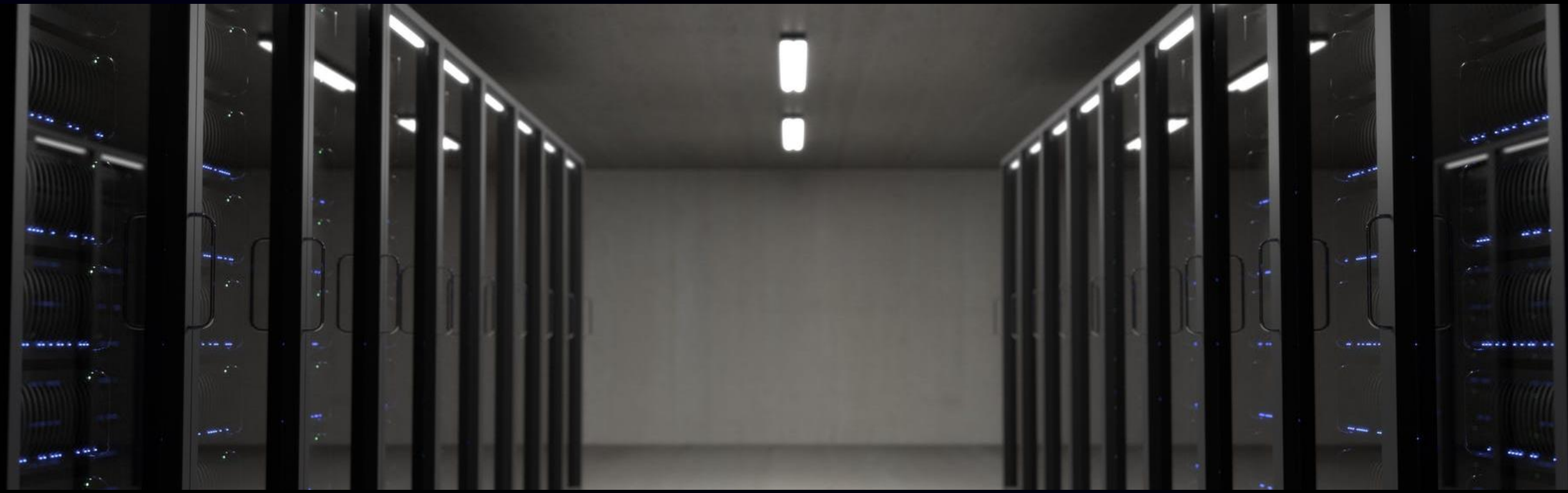
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The details . . .

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DATABASES DISCOVERED



MySQL

Oracle

SQL Server

PostgreSQL

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THE COLLECTOR



Finds databases & analytics servers

- Using LDAP
- Connecting to the operating system
  - WMI queries for Windows
  - SSH queries for Linux

Metrics collection

- Operating system information
  - RAM, HDD, network, etc.
- Database information
  - Versions, patches, features
  - Schema object counts
  - Long-running queries
  - RAM usage

Data audit and upload

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ACTIONABLE RESULTS

- Analyze data to develop a roadmap for the cloud journey
- Review infrastructure optimization opportunities
- Discover all possible options to run workloads on AWS
- Build financial models for these possible options
- Make informed choices according to business needs and goals

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RELATIONSHIP BETWEEN OTHER AWS DISCOVERY OFFERINGS

AWS Migration Evaluator

AWS Migration Hub

AWS Application Discovery Service



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Thank you!

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