



Amazon Web Services

Worldwide Public Sector, Education

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Migrare applicazioni esistenti nel Cloud - Benefici e Best Practice

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Webinar Tematici CRUI-AWS 2021

Garantire la propria Continuità Operativa attraverso il Cloud
giovedì 27 maggio 2021 | dalle 14:30 alle 16:00

Aumentare la resilienza dell'Identity Provider di Ateneo
giovedì 10 giugno 2021 | dalle 11:30 alle 13:00

Soluzioni AWS per la Didattica ed il Lavoro a distanza
venerdì 25 giugno 2021 | dalle 11:30 alle 13:00

Sfruttare l'infrastruttura ed i servizi di AWS per rispondere ai requisiti di Sicurezza e Conformità
giovedì 8 luglio 2021 | dalle 11:30 alle 13:00

Cloud Ibrido con AWS - Benefici e Casi d'uso
giovedì 9 settembre 2021 | dalle 11:30 alle 13:00

Migrare applicazioni esistenti nel Cloud – Benefici e Best Practice
venerdì 24 settembre 2021 | dalle 11:30 alle 13:00

Come automatizzare la gestione dei propri database
giovedì 7 ottobre 2021 | dalle 11:30 alle 13:00

Modernizzazione delle applicazioni attraverso i Containers
venerdì 22 ottobre 2021 | dalle 11:30 alle 13:00

Ricerca e calcolo tecnico su AWS
giovedì 4 novembre 2021 | dalle 11:30 alle 13:00



<https://ict.cruai.it/certificazione/certificazione-webinar-tematici-cruai-aws-2021/>



Agenda

Drivers for transforming your applications

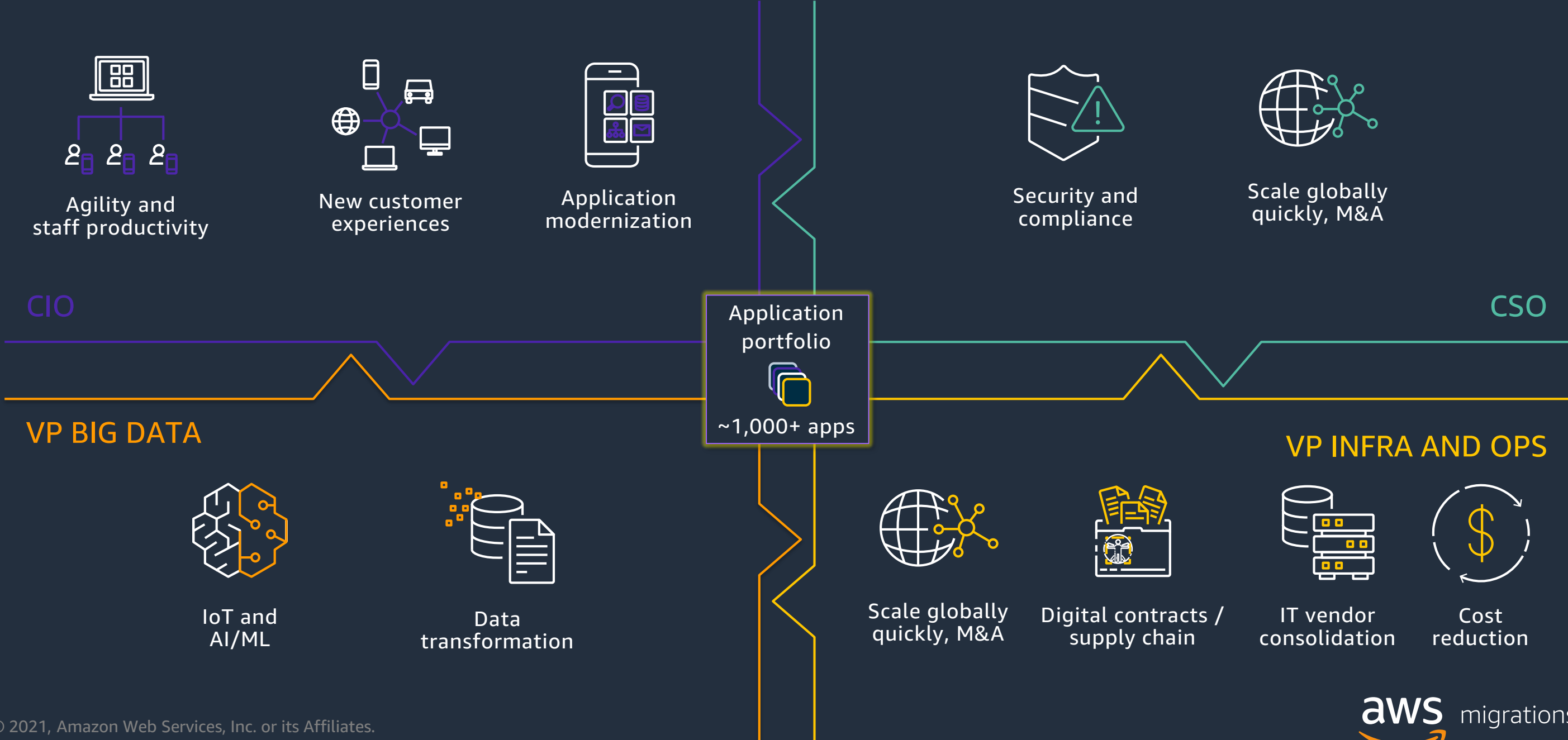
Application migration tools

Demo

How can we help

Q&A

Drivers for transforming your applications



Why use AWS to migrate your workloads?



Most migration experience

Over a million active customers; leading brands migrate to AWS



Most comprehensive and mature migration tools

AWS migration tools, as well as mature third-party migration tooling ecosystem to simplify and accelerate each step of the migration process



Broad partner ecosystem

110+ Migration certified partners, ISVs, and system integrators to help customers assess, mobilize and execute their cloud migration



Most complete migration solutions

Set of programs and solutions to accelerate your cloud journey



Migrated ~5,500 instances in 9 months, reduced storage costs by 50% and compute costs by 20%, and sped up provisioning 10x from 4 weeks to 2 days



Ferrari can run thousands of simulations concurrently to gain insights far faster than ever before possible running simulations in an on-premises environment

Benefits as seen across thousands of migrations

31%

Average infrastructure
cost savings

43%

Fewer security
incidents per year

62%

IT staff
productivity boost

3x

More features
delivered per year

Sources: IDC, Nucleus Research, AWS Analysis

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Make a plan for your application portfolio

Focus on your differentiators

Reduce the size of your estate*



Retire

10%+



SaaS

20%

Move to AWS



Lift & shift



50%



Re-platform

Transform on AWS



Modernize

Serverless / containers / microservices



20%

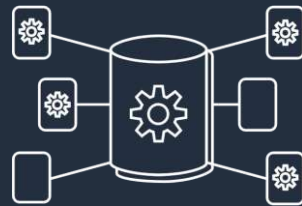
Migrate and modernize legacy applications



Migrate to
free-up
resources



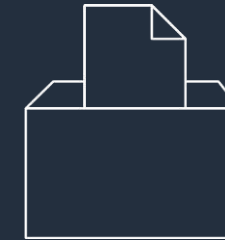
Shift licensing
and cost
models to the
cloud



Scale
infrastructure
on demand



Leverage your
data with
advanced
analytics



Innovate with
200+ cloud
native
services



Boost skills
and experience
for speed and
agility

Benefits of modernizing legacy workloads



442%

projected 5-year ROI
running Windows on
AWS



5000+

Active customers
running SAP on AWS



43%

Reduction in IT
infrastructure costs
with VMware Cloud
on AWS



350,000+

Databases migrated to
AWS

Source: IDC, Windows Server Operating Environment Market Update, Doc # US44217118, August 2018

Source: IDC Business Value White Paper, sponsored by Amazon Web Services, The Business Value of VMware Cloud on AWS for Supporting Business-Critical Applications, doc #US46974120, January 2021

Source: IDC Business Value White Paper, The Business Value of Efficiently Running High-Performing Windows Workloads in AWS Cloud, 2019

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Tools

Migration Evaluator

Migration Evaluator Agentless Collector

- Gathers inventory and time-series performance data
- Collects utilization data for Windows and Linux family operating systems (ex. SUSE, Ubuntu, RHEL)
- Supports VMware and Hyper-V infrastructure discovery and performance monitoring
- Automates Microsoft SQL Server detection
- Provides a higher level of accuracy

Using Existing Data

- Uses inventory and usage data the customer provides from other monitoring tools
- Uses industry benchmarks where there are gaps in the data
- Bypasses environmental constraints preventing deployment of the agentless Collector
- Removes collection period for time-sensitive engagements
- Data needs to be provided in Migration Evaluator's Data Import File

AWS Application Discovery Service

- Gathers inventory and time-series performance data
- Monitors VMWare infrastructure with the Discovery Connector
- Discovers dependencies with the Discovery Agent
- Integrates with AWS Migration Hub
- One collector for discovering, planning, and executing your migration
- Analyze discovery data in AWS Migration Hub, Amazon Athena, and Amazon QuickSight

1. Migration Evaluator Agentless Collector

- Installed on a new dedicated server running English Windows Server 2012 R2 or greater with local admin rights
- Supports automatic upload of daily inventory and utilization
- Supports data redaction through manual Excel export and upload via Management Console
- More details can be found in the Migration Evaluator Collector Installation Guide

VMware

- Communicates with each vSphere virtual appliance
- Provisioning is persisted along with their relationships (VM/Host) & time-series usage

Hyper-V

- Communicates with each Hyper-V host
- Provisioning is persisted along with their relationships (VM/Host) & time-series usage

Bare Metal

- Communicates with each server directly through WMI, SNMP v2c or SNMP v3
- Provisioning is persisted for Windows machines & time-series usage

SQL Server

- Communicates with each server directly through local T-SQL
- SQL Server version and edition is persisted against each VMware virtual machine, Hyper-V virtual machine and bare metal

Deliverables

Quick Insights

aws migration evaluator
Formerly TSO Logic

Quick Insights

Generated: 1/19/2021

Right sizing workloads on AWS would result in an estimated annual cost of **\$42,740,286 USD*** for Amazon Elastic Cloud Compute (EC2) and Elastic Block Storage (EBS). Leveraging your usage patterns this is a projected **20% savings**** over directly matching the current on-premises servers and storage. With AWS, you have access to more instances in every imaginable shape and size than you'll find elsewhere and we continue to add more so you can always find the right size based on your current needs.

Repurchasing non-optimized operating system licenses would add an additional **\$5,732,077 USD*** to the projected costs.

If you would like to learn more about migrating workloads to AWS, including software license optimization and exploring managed services, please contact your AWS account team or email migration-evaluator@amazon.com.

About this report

The analysis is based on infrastructure, software licenses and utilization discovered from 1/9/2021 to 1/9/2021.

Servers	Storage
- 813 virtual machines	- 2847 TB of attached block storage
- 158 physical servers	

Licensing	Utilization
- 951 servers (Linux: 5, Windows: 907, RHEL: 14, SuSE: 5)	- 41.1% peak CPU utilization***
- 859 servers running SQL Server (Standard: 142, Enterprise: 658, Developer: 24, Express: 15)	- 54.7% peak memory utilization***

* Projected AWS costs do not include standard reserved or upfront 1-year instance Savings Plan USD pricing for Amazon EC2 and Amazon EBS. Savings Plan usage is not included in this report. Server licenses are projected savings based on utilization and available license compared to a like-for-like match of on-premises CPU and RAM specifications. A longer collection period will improve right sizing confidence. ** The average AWS utilization value from all servers. *** Engagement not completed as of 1/19/21. Amazon Web Services, Inc. or its affiliates.

Directional Business Case

Data Insights

Overview of the percentage of time servers were used, environment insights & licensing details.

OS Instance Classification	Percentage
In Use	48.9%
Idle	3.6%
Unlicensed	7.5%
Zombie	15.3%

Environment & Licensing

Category	Percentage
Zombie	1.9%
OS Licenses	1.9%

On-Premises Annual Cost Estimation

Included in On-Premises Cost Estimation:

- Server hardware based on AWS benchmarks
- Attached storage
- Power
- Software licensing: OS (if applicable)
- MS SQL Server

Excluded in On-Premises Cost Estimation:

- Employee cost
- Migration tool
- Professional services
- Shared storage
- Software outs
- Networking

Reduce Costs Further with Amazon EC2 Spot Instances

47% in Compute Savings from On-Demand to Spot Instance

For the 1,220 servers we assessed across your entire portfolio, 79 are candidates for running on Amazon EC2 Spot Instances as they were:

- Non-Production
- Running RHEL or Linux
- Not running MS SQL Server Enterprise or Standard

For these 79 servers, switching to Amazon EC2 Spot Instances would save you **47.2%** over running On-Demand and **58.2%** over a 3 Year Reserved Instance.

Analytics Engine

aws migration evaluator

Formerly TSO Logic

ANALYZE AND COST - Development

Category	Percentage
In Use	48.9%
Idle	3.6%
Unlicensed	7.5%
Zombie	15.3%

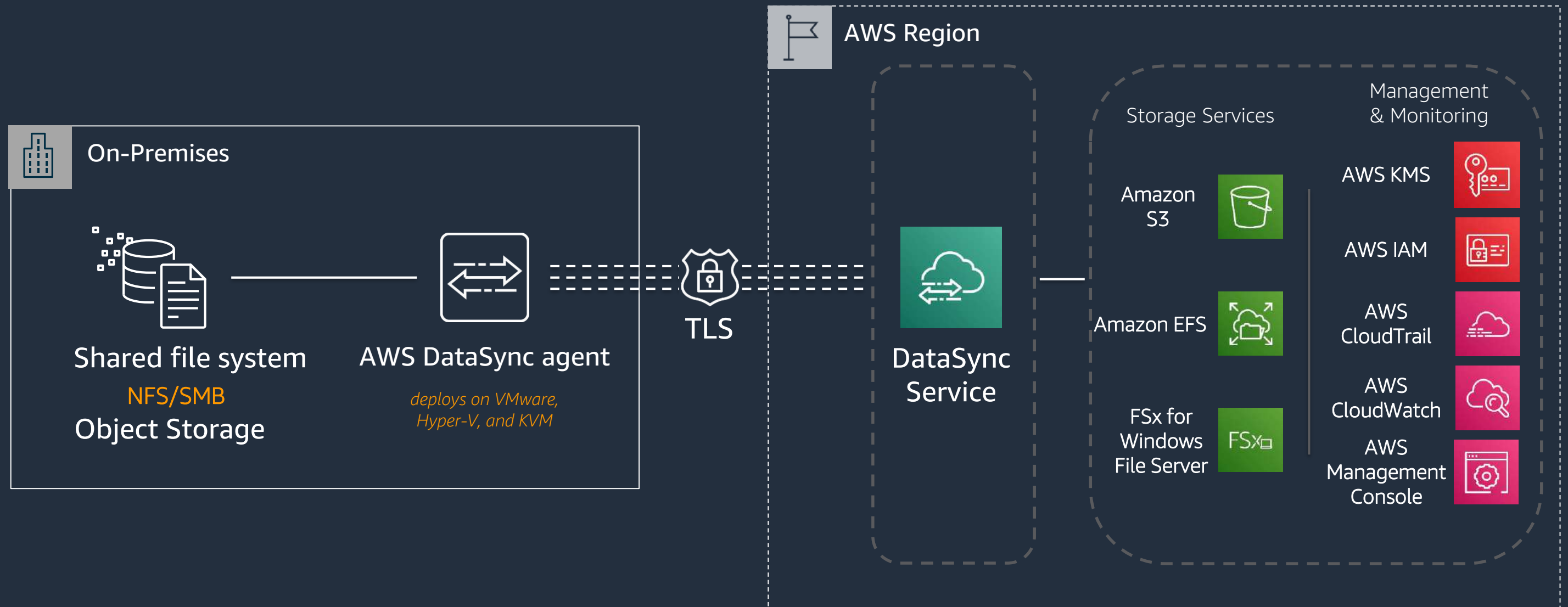
DETAILED DEVELOPMENT

Category	Percentage
Zombie	1.9%
OS Licenses	1.9%

Available upon request

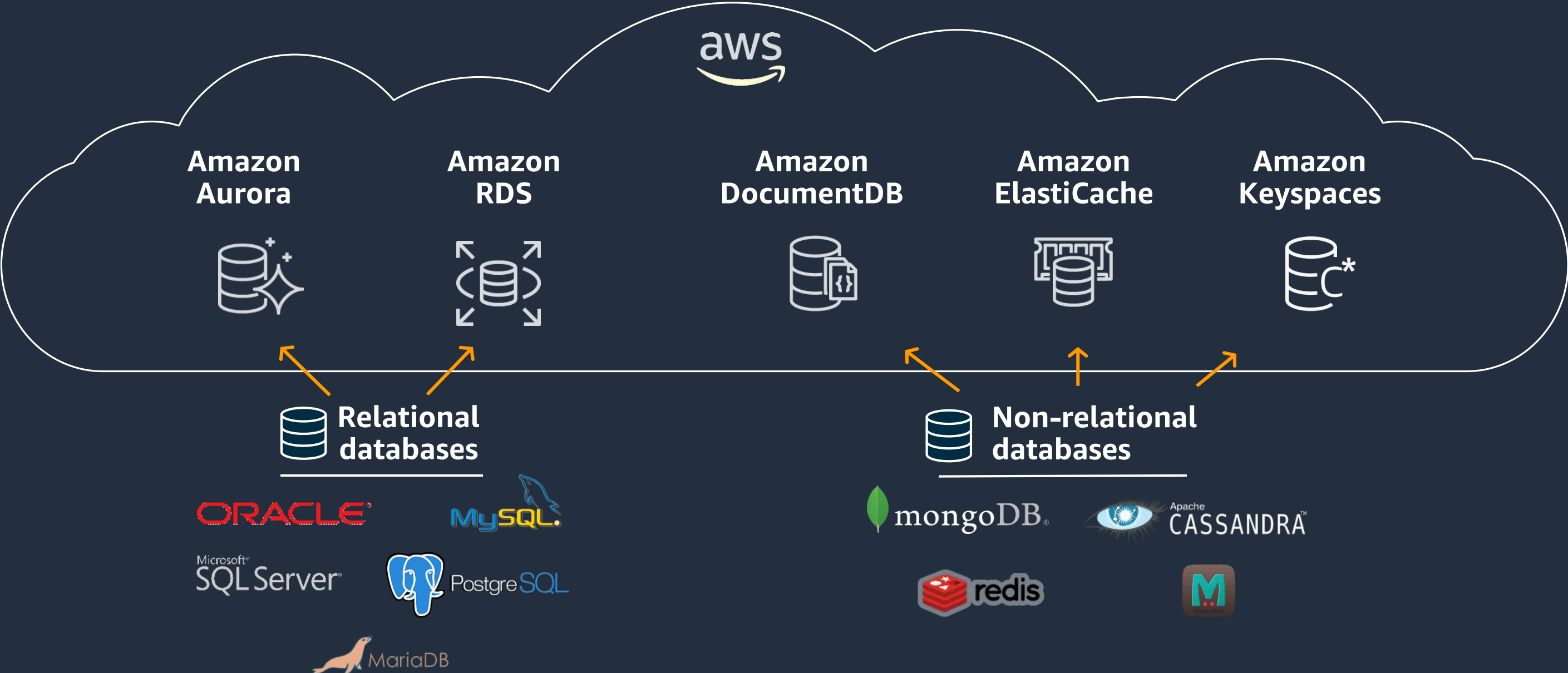
AWS DataSync

Simplifies, automates, and accelerates data transfer to or from AWS



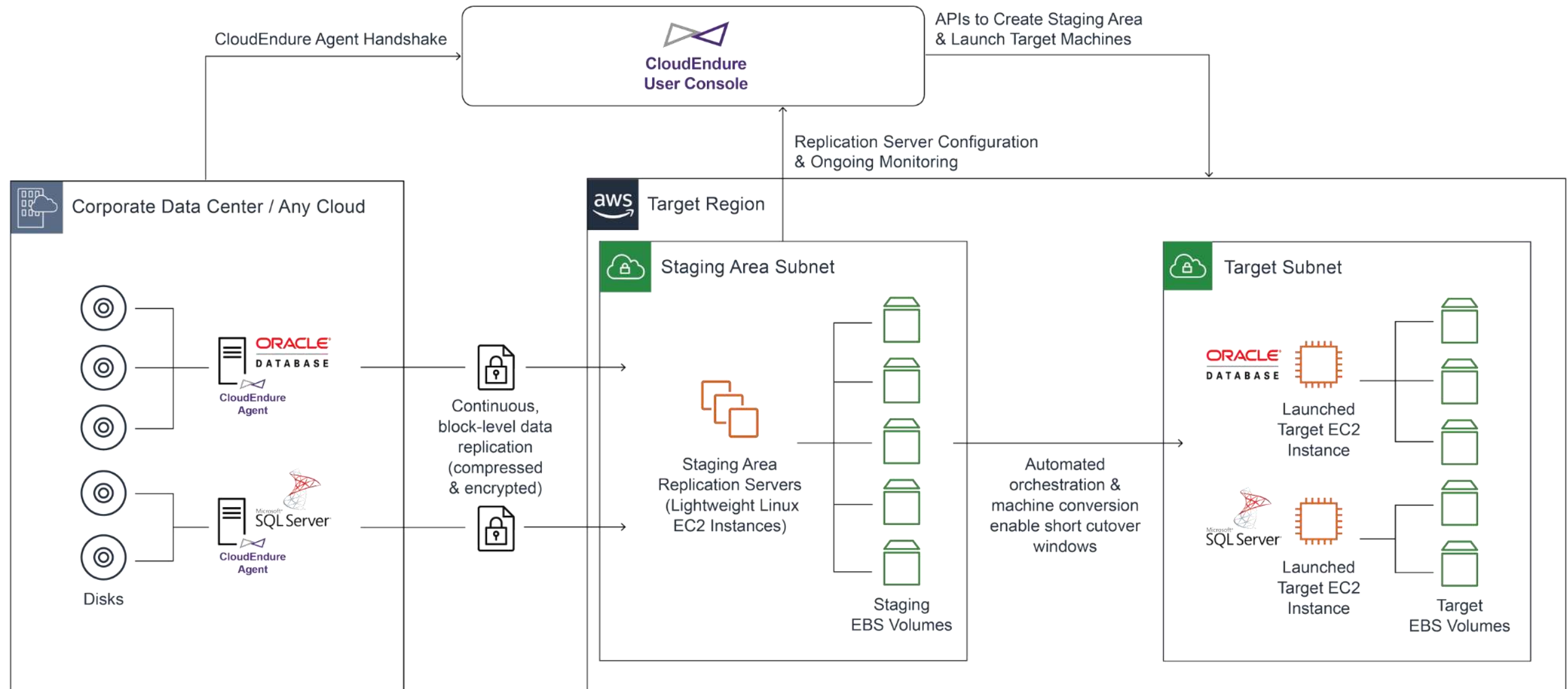
AWS Database Migration Service

Migrate on-premises or self-managed databases to fully managed services



CloudEndure

- Continuously replicates any application or database from any source into AWS
- Business outcome: self-service, rapid, reliable migration with minimal business disruption



DEMO CloudEndure

ProServe Vision

“ accelerate customer business outcomes through the innovative use of the AWS platform ”

What we do

Accelerate customer business outcomes



Technology and solutions for every use case

AWS Value Proposition



Application Migration & Modernization

- Application Modernization
- Portfolio Assessment & Planning
- Operations Integration
- Workload & Database Migrations
- AWS Managed Services



Security & Infrastructure

- Security Assurance and Advisory
- Network Security Architecture
- Application Security Architecture
- Data Security and Advanced Reasoning
- Cloud Infrastructure Architecture
- DevSecOps Strategy and Implementation



Advisory & Engagement Management

- Engagement Management
- People
- Business
- Governance
- Innovation

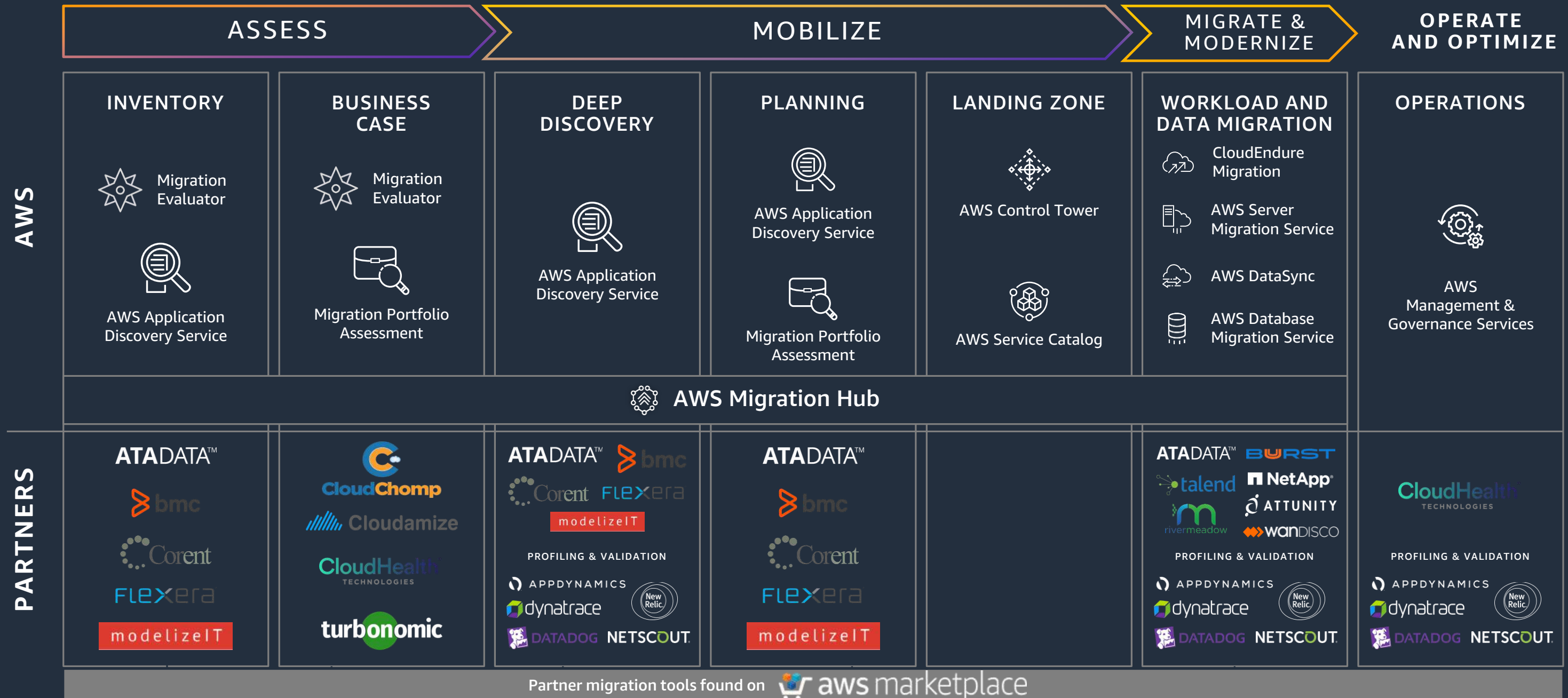


Emerging & Intelligent Technologies

- Data & Analytics
- Internet of Things (IoT)
- Amazon Connect
- End User Computing
- High Performance Computing

AWS Partner Network

Rich toolset to support each phase of migration



Actions we recommend

01 Be selective on which apps to transform; focus on differentiators

02 Design and build a service management framework to enable your cloud operating model

03 Choose partner(s) to guide you and bring skills and experience

aws.amazon.com/cloud-migration



Grazie a Tutti

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