

HEXAWARE

Oracle to PostgreSQL



Introduction

Key Issues Faced by Oracle Customers

- Rising **database licensing and support costs** are a major concern, with **82% of IT leaders** identifying cost optimization as a priority in infrastructure modernization initiatives.
- Many organizations feel constrained by **vendor lock-in**, with **~70% of enterprises** reporting limited flexibility and expensive upgrade cycles..
- Increasing operational and maintenance overhead - patching, tuning, and compliance consumes **40–60% of DBA effort**, slowing **innovation and delivery timelines**.
- Legacy database platforms delay cloud adoption, with **~68% of enterprises** **citing database dependency** as a key barrier to modernization.

Oracle market insights in 2026

Gartner

Enterprises prioritize open-source and cloud-managed databases to cut costs, reduce vendor lock-in, and boost scalability and agility.

- Strategic Technology Trends 2026

FORRESTER

Organizations are rapidly migrating from proprietary databases to open-source options like PostgreSQL to enable cloud-native modernization and DevOps

- Open-source database adoption 2026

* ISG

Enterprises are investing in database modernization, with Oracle-to-PostgreSQL migration as a key strategy for cost savings and cloud readiness

- Provider Lens 2026

Gartner

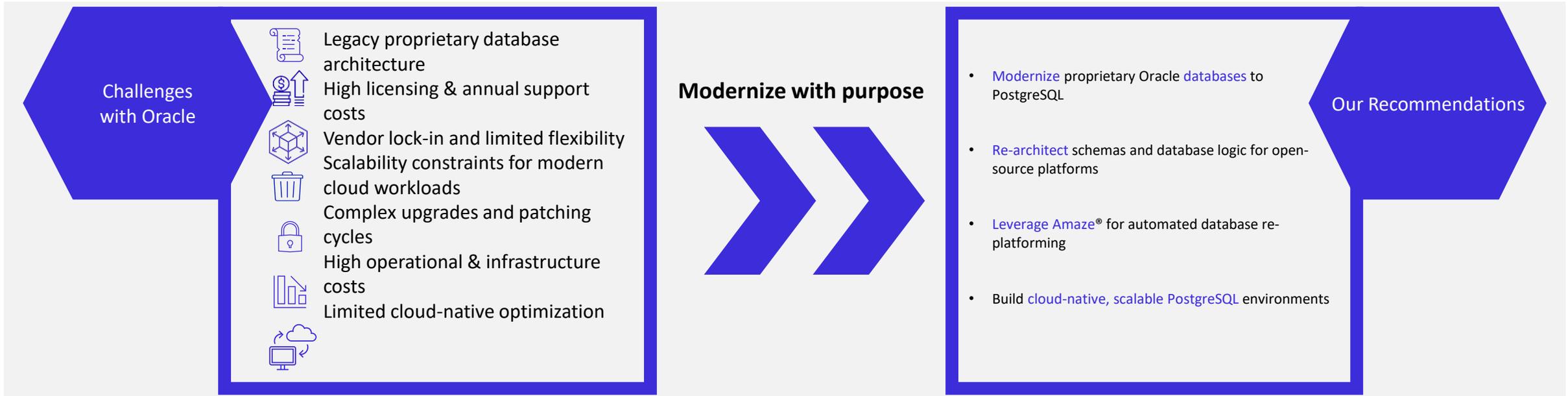
By 2026, many enterprises will adopt open-source databases to drive digital transformation and cut licensing costs.

- Press release on Top Strategic Trends for 2026

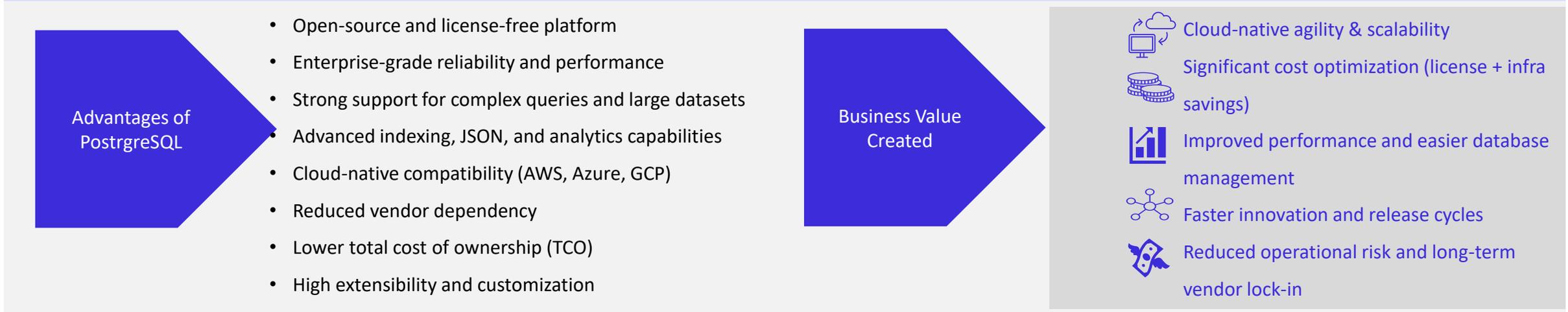
* ISG

Service providers offering automated, low-risk migration to PostgreSQL will gain more enterprise adoption through faster value and lower risk.

- Provider Lens 2026



Why Moving from Oracle to PostgreSQL is a Smart Business Strategy?



Our Goals

By migrating Oracle database workloads to PostgreSQL using Amaze®, Hexaware’s AI-led transformation platform, we aim to eliminate high licensing and support costs, reduce vendor lock-in, and modernize database platforms with a scalable, cloud-ready, open-source architecture—while ensuring data integrity, performance, and minimal business disruption.

Values Created

50–70% reduction in database licensing and maintenance costs

30–40% faster migration timelines through Amaze-led automation

Improved database scalability and performance

Reduced operational and infrastructure overhead

Cloud-native readiness for hybrid and multi-cloud environments

Key Solution Highlights

Amaze-led automated assessment to analyze Oracle schemas, objects, dependencies, and complexity

AI-driven re-platforming from Oracle to PostgreSQL with up to 60–70% automation in schema and code conversion

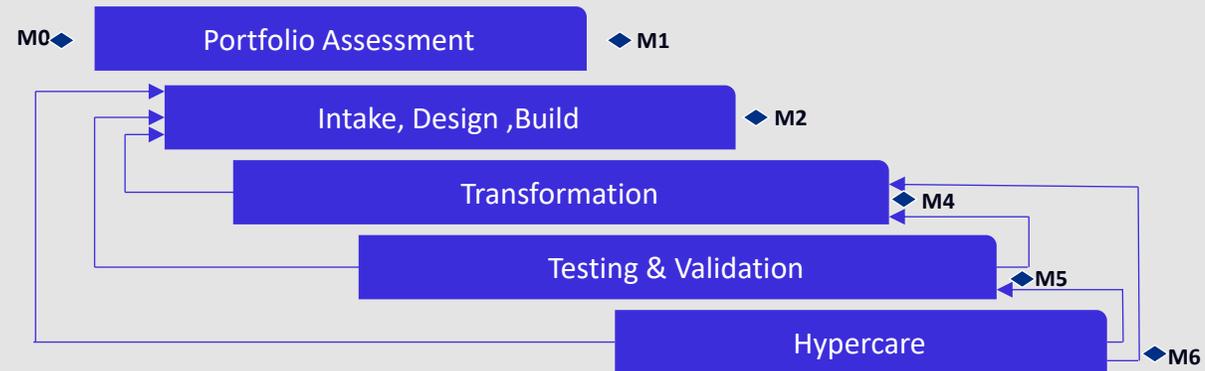
Automated data migration and validation ensuring accuracy and consistency with near-zero data loss

Refactoring of Oracle-specific constructs (PL/SQL, packages, triggers) for PostgreSQL compatibility

Optimized PostgreSQL architecture designed for high availability, scalability, and cloud deployment

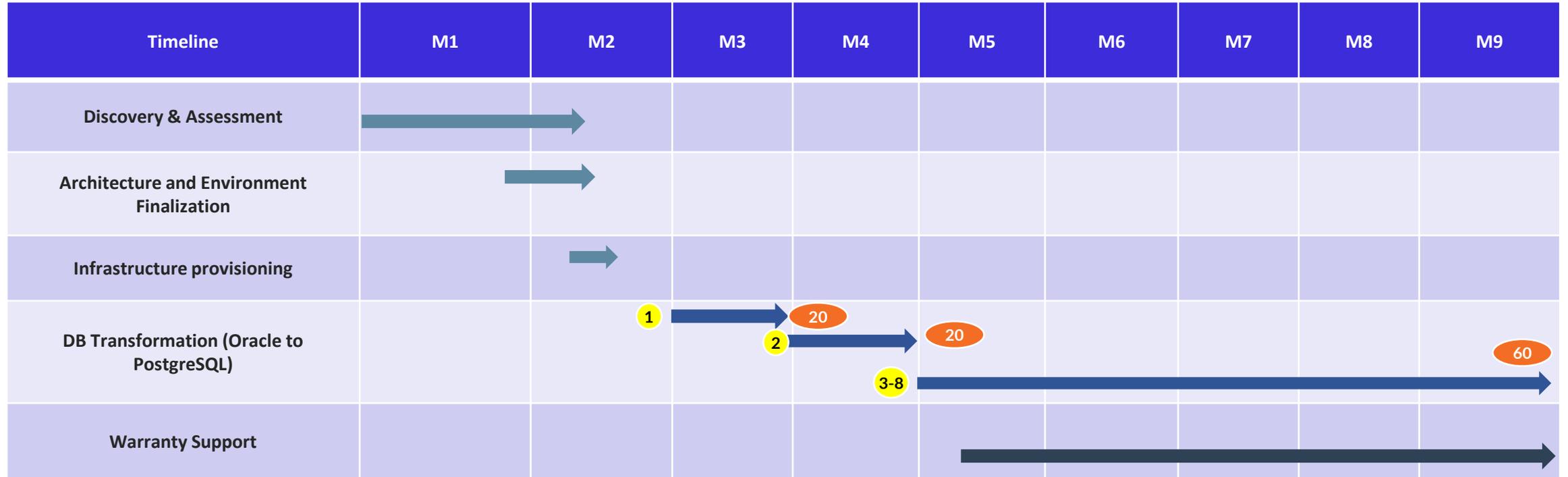
The transformational Journey with Hexaware

Powered by **amaze**®





<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Activities</p>	<ul style="list-style-type: none"> • Understand current Oracle database landscape • Execute Amaze-led automated assessment • Analyze schemas, tables, indexes, views, triggers, procedures, packages • Identify Oracle-specific constructs and migration complexity • Review and finalize migration approach 	<ul style="list-style-type: none"> • Database and application dependency mapping • Performance, security, and compliance assessment • Migration planning and sequencing • Finalize scope and migration strategy 	<ul style="list-style-type: none"> • Amaze-led schema and object conversion • Refactor Oracle-specific SQL and PL/SQL • Data migration to PostgreSQL • Environment setup and configuration • Application integration updates 	<ul style="list-style-type: none"> • SIT, UAT, and performance testing • Data reconciliation and validation • Bug fixing and stabilization • Production deployment and cutover
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Deliverables</p>	<ul style="list-style-type: none"> • Current-state Oracle database assessment • Complexity and dependency analysis report • Target PostgreSQL high-level architecture • Assessment summary and recommendations • Initial SOW 	<ul style="list-style-type: none"> • Detailed migration plan and timeline • Target PostgreSQL detailed design • Finalized scope and assumptions • Updated SOW (if required) 	<ul style="list-style-type: none"> • Converted PostgreSQL schemas and objects • Refactored database code and queries • Migrated data with validation results • Configured PostgreSQL environments • Updated Application code 	<ul style="list-style-type: none"> • Test execution and sign-off report • Production deployment support • Go-live readiness checklist • Successful production rollout



Wave Number
 # Number of servers migrated
 ● Preparation
 ● Migrate & Test
 ● Support

- Hexaware has assumed 100 DB schemas to derive the above wave groupings and Project Plan.

Execution Models for Oracle → PostgreSQL Migration

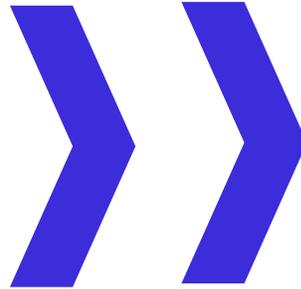
	Phased / Domain-wise Migration	Pilot-first / Early Wins Model	Migration Factory Model (Amaze®-Led)	Hybrid Model
Description	Migration happens gradually by application, domain, or business unit. Oracle and PostgreSQL coexist during transition.	Start with low-risk, low-complexity databases to validate tools, approach, and performance before scaling.	Industrialized migration approach using automation, standardized playbooks, and repeatable processes to migrate large volumes of databases.	Combination of phased and pilot based on workload criticality and business priority.
Pros	<ul style="list-style-type: none"> • Lower business risk • Easier dependency handling • Continuous business operations • Better change management 	<ul style="list-style-type: none"> • Builds stakeholder confidence • Quick ROI visibility • Refines migration strategy early • Low initial risk 	<ul style="list-style-type: none"> • High speed and scalability • Consistent delivery quality • Reduced manual effort • Best suited for automation leverage 	<ul style="list-style-type: none"> • Most flexible approach • Tailored risk management • Balanced speed and safety • Practical for real-world enterprises
Cons	<ul style="list-style-type: none"> • Longer program duration • Temporary dual platform costs • Integration complexity during transition 	<ul style="list-style-type: none"> • Limited immediate cost savings • Not suitable for large impact quickly • Needs follow-on scaling plan 	<ul style="list-style-type: none"> • Initial setup effort required • Needs defined governance structure • Requires stable migration patterns 	<ul style="list-style-type: none"> • Governance complexity • Requires strong coordination • Planning-intensive
Applicability	<ul style="list-style-type: none"> • Large enterprises • Complex application landscapes • Multiple dependent systems 	<ul style="list-style-type: none"> • Clients unsure about migration • First-time modernization programs • Proof-of-value driven engagements 	<ul style="list-style-type: none"> • Large Oracle estates (100+ DBs) • Long-term modernization roadmaps • Amaze automation can be maximized 	<ul style="list-style-type: none"> • Very large enterprises • Mixed criticality workloads • Multi-year transformation programs

Why Hexaware ?

We help mitigate your pain points during database migrations while driving business value

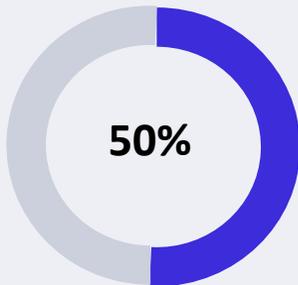
Migration Pain Points

- Lack of specialized expertise in both Oracle and PostgreSQL
- Complex legacy Oracle schemas, PL/SQL and tightly coupled dependencies
- Risk of inaccurate schema/code conversion and data loss
- Performance regression risks post migration
- Project delays and cost overruns due to manual conversion effort

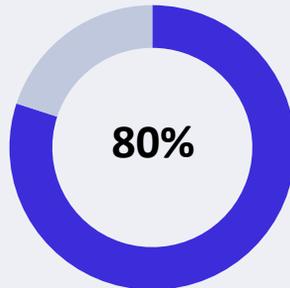


Solutions we offer

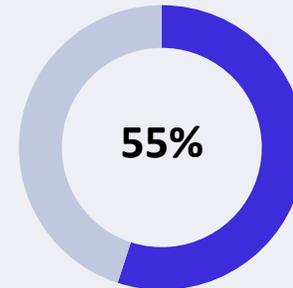
Up to 70% Amaze®-led automation	Strong Oracle and PostgreSQL expertise
Proven migration frameworks and methodologies	Dedicated Database COEs driving scale and quality
Amaze® Integration with DevOps and CI/CD pipelines	Case-study led execution



Faster migration timelines and time-to-value through **Amaze® automation**



Effort reduction in complex schema and code conversion using **Amaze®-led automation**



Reduction in database TCO by eliminating Oracle licensing and lowering operational overhead with PostgreSQL

Cost Category	Using Oracle (Annual)	Using PostgreSQL(Annual)
License Cost	Enterprise Edition licenses + options (Partitioning, RAC, Diagnostics)-(~\$500,000 – \$1,100,000)	\$0 license (open-source)
Support and Subscription Cost	Oracle support (~22% of license annually)(~\$110,000 – \$240,000)	Optional enterprise support (EDB / Cloud vendor / partner)-(~\$40,000 – \$90,000)
Maintenance & DBA effort	High- patching, PSU upgrades, compliance validation- (~\$180,000 – \$300,000)	Lower admin overhead (~\$80,000 – \$150,000)
Transformation Cost	N/A (no transformation)	One-time migration- \$15200 per database/schema
Infrastructure Cost	Requires certified hardware, high CPU core licensing, DR replication- (\$300,000 – \$600,000)	Commodity VM / cloud managed DB (RDS/Azure/GCP)- (\$120,000 – \$250,000)
Total Estimated Annual Cost(approx.)	\$1,090,000-\$2,240,000	\$240,000-\$490,000 + one-time migration cost

Highlights

- ~100 databases/schemas, estimated migration investment = **~\$1.52M**
- Total Year-1 cost (including migration) **~ \$1.6M** (already lower than continuing on Oracle ~ \$2.2M)
- Payback period: **12–18 months**
- From Year-2 onwards: annual run cost **~ \$400K**
- Annual operational savings ~ **~\$1.2M - \$1.7M per year**
- 3-year cumulative savings ~ **\$2.1M+**
- 5-year TCO savings ~ **\$5M – \$8M**
- From Year-2 onward, organization benefits from sustained operational savings and improved cost predictability



Customer Profile

A leading mortgage company and publicly-traded firm in North America

\$20+ Bn
Net Worth



Challenges



The client wanted to migrate on-premises Sybase database to AWS PostgreSQL as containerized application. The challenges were as under:

- Business-critical applications handling key financial processes
- Conversion of approximately 350 endpoints from EJB to Rest API
- DB had around 900 critical stored procedures
- DB to be migrated to production without impacting day-to-day business and customer experience
- Leverage Aurora PostgreSQL DB in dev, test, and production
- The size of the Sybase database was 345 GB and contained more than 54 million records with complex data types like XML, BLOB, CLOB, and table partitions

Key Reasons for Migration



- Sybase doesn't have much support on the cloud, especially AWS
- Sybase not flexible enough, setting contingency and data replication across regions is complicated
- High licensing costs for database increases TCO

Solution



Hexaware proposed amaze®, a proprietary and automated application replatforming product suite for mass cloud migration primarily designed for Java, .Net, and TIBCO BW applications.

- SOAP web services were converted to REST, replatformed to Spring Boot and deployed to AWS ECS Fargate containers
- Batch programs were converted to Spring Boot and scheduled and managed using ECS task
- By using the amaze® refactoring engine, the applications were migrated from Sybase to AWS Postgres Aurora DB
- All the DB objects like stored procedures, packages, functions, triggers, views, and DMLs migrated to Aurora PostgreSQL automatically within 6 weeks



Postgres has full support in AWS and works well in data replication across regions



TCO reduction by over 50%



Implementation costs reduced by 50%

Your Modernization Journey Starts Here

Unlock faster innovation, reduce operational risks, and achieve scalable, cost-efficient cloud agility with Hexaware's proven Oracle to PostgreSQL expertise

Next Steps

- Schedule a 90 min discovery workshop to assess your Oracle landscape.



Client

1. Shout out for discovery workshop
2. Access to oracle db environment

Hexaware

1. Assessment of oracle databases
2. Assessment Report
3. Migration POC for 3 databases
4. Roadmap for complete migration

Contact [Hexaware](#) for a personalized consultation and roadmap to your cloud-native future.

Email :
Website
Ph:





Technical Workflow

amaze®
For Infrastructure

amaze®
For Application

amaze®
For Middle-ware

amaze®
For Data

← ASSESSMENT →

← TRANSFORMATION →

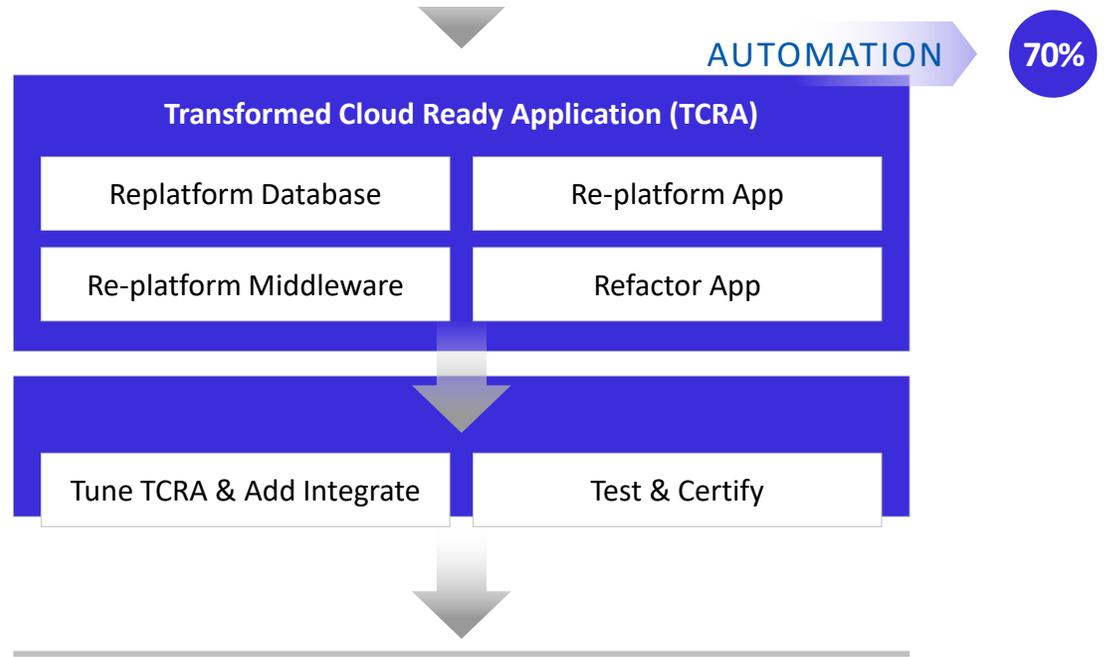


- Assessment**
- Transformation Readiness
 - Transformation Type
 - Transformation Complexity
 - Transformation Effort

amaze®

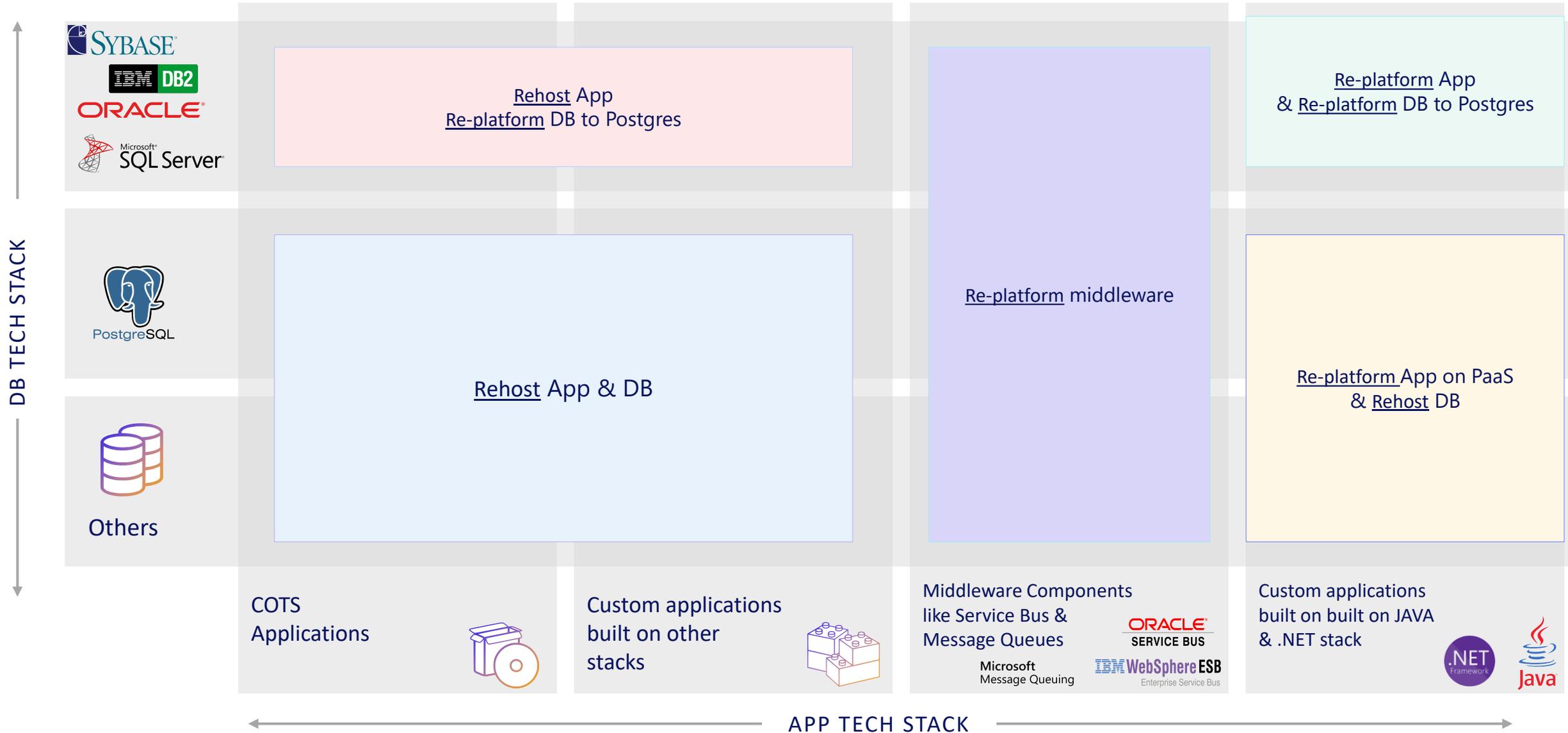
AUTOMATION 95%

Amaze App / DB Transformation

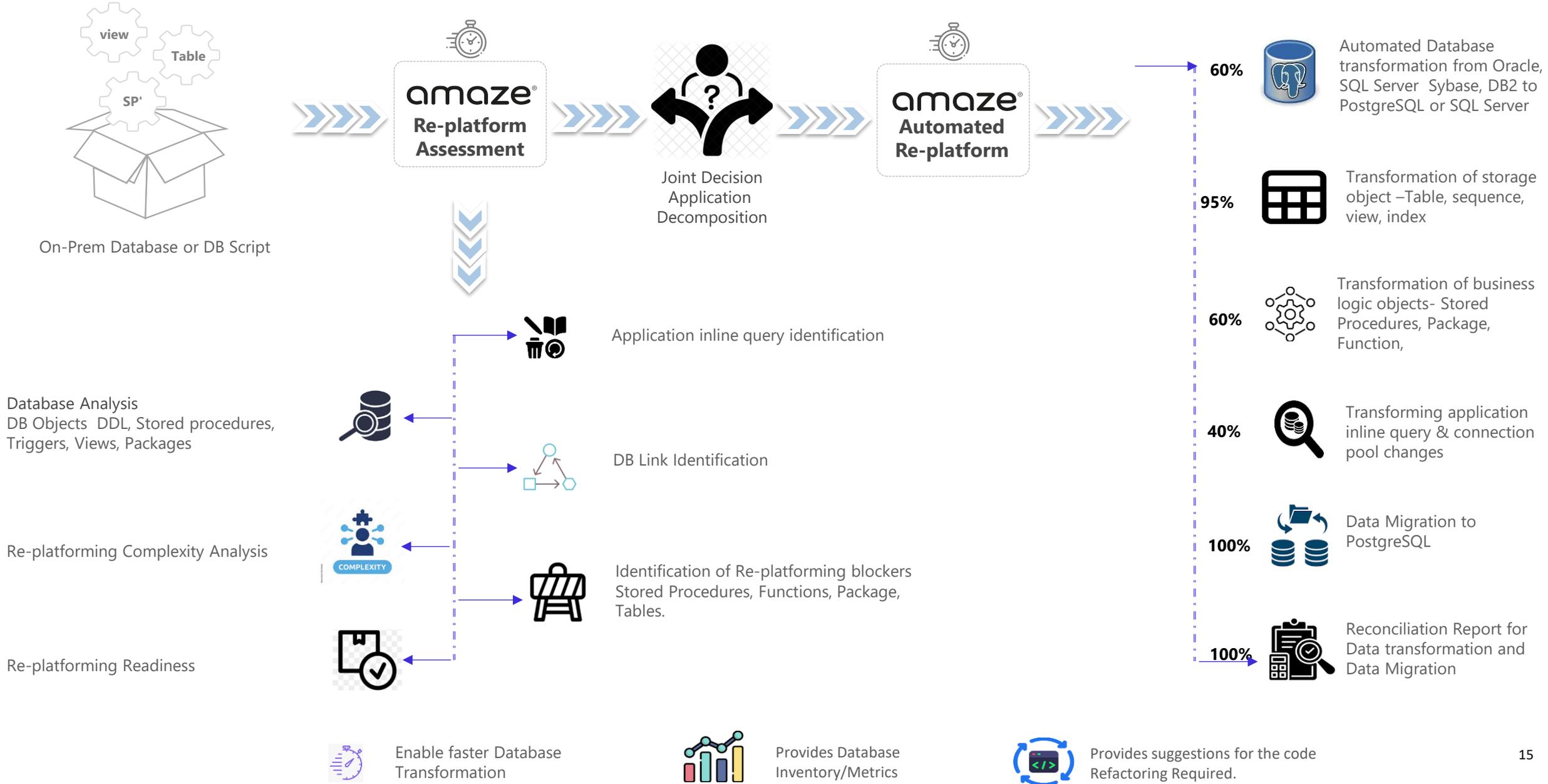


.NET 4.x/.NET 3.1/.NET 5.0/Java Services



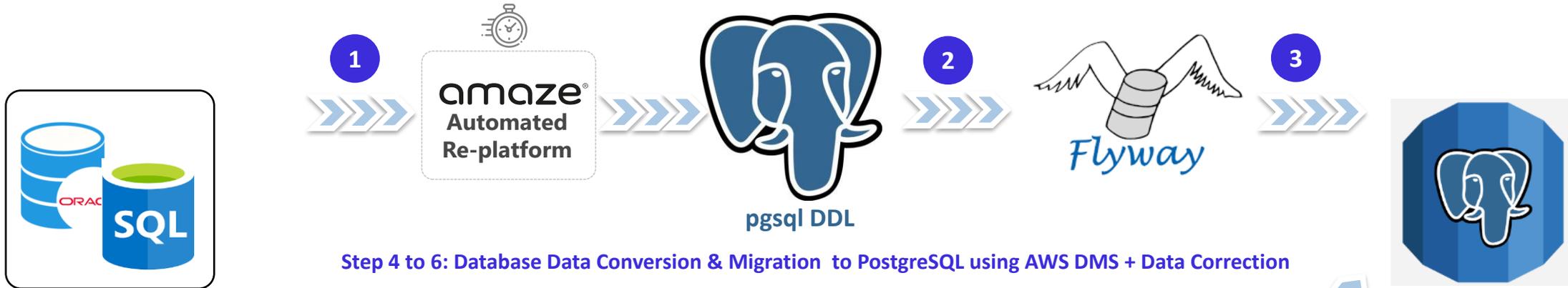


AMAZE Assessment & Transformation Engine Overview - Database

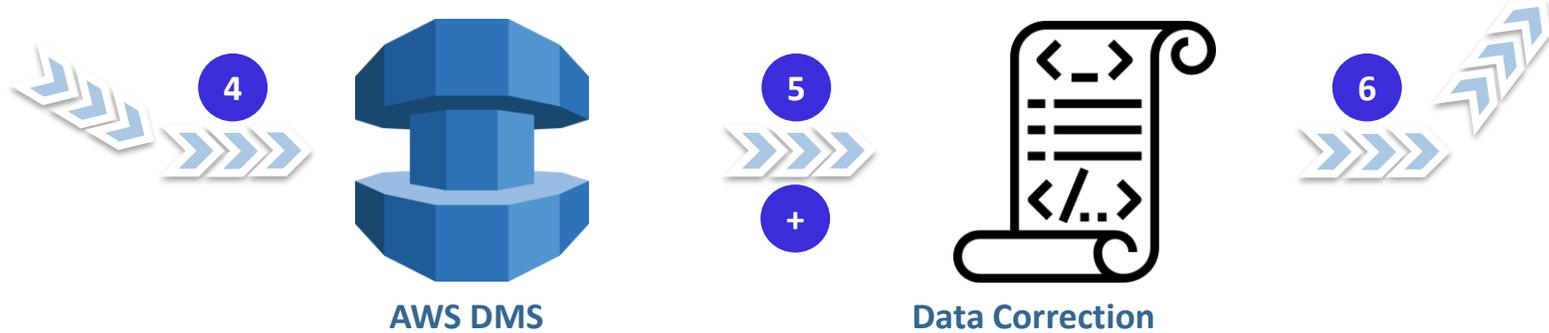


Database Object transformation using AMAZE® & Data Migration using AWS DMS

Step 1 to 3: Database Object Re-platforming to PostgreSQL using AMAZE®



Step 4 to 6: Database Data Conversion & Migration to PostgreSQL using AWS DMS + Data Correction



1	AMAZE® led automated re-platforming to convert Oracle/ SQL Server DB objects to PostgreSQL objects	4	The data in the database is converted & migrated to the Aurora PostgreSQL database using AWS DMS service
2	Enable automated deployment to Aurora PostgreSQL environment using Flyway scripts	5	Incase of data dropouts during migration using DMS service, Data correction scripts are created to insert the missing data
3	Flyway scripts are used for deploying the DDL Metadata to the Aurora PostgreSQL DB on AWS	6	The DMS service and the data correction scripts together ensure the completeness of data setup in the Aurora PostgreSQL DB

Thank You

Please direct all inquiries to person@hexaware.com

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