

Mphasis Capability in Database Assessment

Mphasis offers a comprehensive, structured, end-to-end Database Assessment service that evaluates the current state of enterprise databases—covering architecture, performance, security, scalability, compliance, and modernization readiness. Our approach blends deep DBA expertise, proprietary frameworks, automated tools (MD-Cert, MeETL), and cloud migration best practices.

Core Capability Areas

1. Database Health Assessment

Mphasis performs a thorough technical evaluation of existing database environments to identify bottlenecks, stability risks, and improvement opportunities.

Capabilities include:

- Instance- and schema-level health review
- CPU, memory, IO profiling
- Query execution analysis
- Index fragmentation & optimization needs
- Configuration and parameter benchmarking

2. Performance & Capacity Assessment

Focused on improving throughput, reliability, and scale.

Key focus areas:

- SQL tuning and workload analysis
- Capacity planning for growth & peak load
- Bottleneck identification using performance baselines
- Application–database dependency analysis

3. Architecture & Design Review

A structured review of logical and physical database design to ensure alignment with best practices.

Scope includes:

- Data modelling & entity–relationship validation
- Normalization vs. denormalization strategy
- Storage architecture & sharding suitability
- HA/DR review (Always-On, GoldenGate, etc.)

4. Security, Compliance & Governance Assessment

Ensuring databases comply with enterprise and regulatory requirements.

Coverage:

- RBAC & access management
- Policy & guideline compliance
- Auditing & vulnerability analysis

- Data security assessment & encryption readiness

5. Cloud Migration Readiness Assessment

Determining feasibility, complexity, and roadmap for moving from on-prem to cloud (AWS, Azure, GCP).

Activities:

- Source-to-target compatibility analysis
- Heterogeneous & homogeneous migration mapping
- TCO analysis, licensing optimization
- PaaS adoption suitability (RDS, Azure SQL, CloudSQL)

6. Consolidation & Modernization Assessment

Ideal for clients with fragmented DB landscapes.

Includes:

- RDBMS consolidation review
- Legacy → Cloud-native modernization path
- DB upgrades & compatibility validations
- Refactoring recommendations

Mphasis Database Assessment – Key Features

1. Database Health Assessment

Evaluates configuration, performance baselines, storage utilization, CPU/memory usage, and stability risks.

2. Performance Tuning & Optimization

Deep SQL/query tuning, workload analysis, index optimization, and performance diagnostics.

3. Architecture & Design Review

Assessment of logical/physical schema design, data models, HA/DR frameworks, and alignment with best practices.

4. Security & Compliance Assessment

Review of security policies, access controls, patching, vulnerabilities, compliance guidelines, and audit readiness.

5. Cloud Migration Assessment

Feasibility and complexity analysis for on-prem → Cloud (AWS, Azure, GCP), including sizing, compatibility, and migration planning.

6. RDBMS Consolidation Assessment

Evaluation for database footprint reduction, consolidation strategy, and optimization of licensing and operational cost.

7. Data Lifecycle & Data Management Assessment

Covers data quality, governance, profiling, archival, retention, and metadata management readiness.

8. High Availability & Disaster Recovery Review

Assessment of HA/DR configuration, failover readiness, replication setup (e.g., GoldenGate), and resilience posture.

9. Upgrade & Modernization Suitability Check

Checks readiness for database upgrades, legacy modernization pathways, and cloud-native database adoption.

10. Capacity Planning & Cost Optimization

Forecasting growth, optimizing compute/storage footprints, and reducing TCO through right-sizing.

Mphasis Database Assessment – Service Benefits

1. Improved Performance & Stability

A structured assessment helps eliminate bottlenecks, optimize workloads, and enhance system stability for business-critical applications. This supports high-availability and performance for databases ranging from 10GB to 100TB.

2. Reduced Operational & Infrastructure Costs

By identifying consolidation opportunities and recommending modernization (e.g., Postgres migration), organizations can lower licensing costs, reduce compute/storage burdens, and streamline operations.

Examples include:

- License cost savings through SQL Server → Postgres migration.

3. Enhanced Security, Compliance & Governance

The assessment surfaces vulnerabilities, access gaps, and compliance risks.

Strengthening governance ensures secure handling of structured data assets and adherence to regulatory frameworks (e.g., GDPR).

4. Stronger Disaster Recovery & Business Continuity

Reviews of backup, recovery, and DR readiness ensure reliable recovery, reduced downtime risk, and alignment with enterprise RTO/RPO needs.

5. Accelerated Modernization & Cloud Readiness

The assessment identifies modernization pathways—DB upgrades, cloud migration, refactoring, and lifecycle improvements—giving a clear roadmap towards scalable, cloud-enabled architectures.

6. Improved Data Quality & Lifecycle Management

Evaluates issues in data governance, redundancy, lifecycle processes, and quality KPIs, strengthening enterprise trust in data for downstream analytics and AI.

7. Reduced Risk Through Early Issue Detection

The framework highlights deviations, gaps, performance risks, technology obsolescence, and redundancy—enabling proactive remediation before failures impact business operations.

8. Optimized DBA & Operations Efficiency

Assessment drives improvements in:

- Incident/problem management
- Monitoring and observability
- Backup tool optimization (e.g., enabling RMAN migration saved ~\$200K for one telecom client)

9. Clear, Actionable Migration Roadmaps

Deliverables include detailed findings, risk scoring, dependency mapping, and a transformation roadmap—helping stakeholders confidently plan modernization and cloud adoption.

10. Better Scalability & Future-Readiness

By aligning the database landscape with business growth plans, modernization trends, and new digital initiatives, the assessment ensures the enterprise is ready for future demand.

Case Study: Assessment Study for Insurance Business Units

Business Requirement



A leading Insurance Broking Giant in UK required to build an Operational data store, where portfolio level data (Policy, Premium, Claim & Risk) is captured across all Segments & entities to enable Portfolio view.

- The Operational Data Store would have the data collated from various heterogeneous Business Units' Policy Admin Systems (PAS) identified
- The data collated would be from the set of Taxonomy Elements identified
- The source for these Taxonomy Elements from different Business Units will be from respective databases
- An Assessment Study needs to be performed on the Taxonomy elements and the source of these elements
 - The Assessment would need to bring out a Summary Report on the availability of the Taxonomy elements, source DB Fields, Gaps etc.

Our Approach



- Assessment performed in two phases – for 7 PAS Systems each of one month duration
- Identified the Taxonomy Elements (KPIs) of the Portfolio View & finalized them
- Connect with Business Units, Assessed their PAS systems on the Taxonomy
- Received data extracts from BU's and arranged for Incremental Data
 - First load would be a full load and the subsequent loads would be incremental

Key Benefits



- 7 PAS systems under different Business Units are being onboarded
- Ardonaugh Group-wide data repository would be used to carry out business analysis and reporting . Rephrase
- Reseeding concept – Business can recreate the ODS any point of time for a specific source system (PAS).
- Historical data will be moved into the Azure File system using Azure Stretch DB Concept. – Reword

Services Featured



- A centralized ODS Platform comprised with Staging and Mapping layers
- Full load and Incremental Data load are identified and received
- Any exceptions / failures in data load or data arrival is immediately flagged via mails
- ETL Configurations stored in the table so that it could be modified without any hassle

Technologies



- ODS Platform – SQL Server 2017
- ETL Packages – SSIS 2017
- Azure storage and Azure Stretch DB
- Incremental Feed Generator for Incremental Data Feed
- PowerShell Scripts for checking Azure storage

Challenges



- Different Business Units providing the data in different format and having different views on the KPI / Taxonomy – Hence constantly changing requirements.
- Consistent delays in the Business Data extract supply
- Data Security to be conserved while the data files are being landed in the Azure storage



Further Information: For more information about our G-Cloud services, please contact our Public Sector Team at mphasisukps@mphasis.com

