

Mphasis Capability in Database Management Support

Mphasis provides full-lifecycle, enterprise-grade Database Management Support across SQL, NoSQL, Cloud-native and legacy database platforms. The support model spans **L1, L2, L3**, with 24x7 global coverage, proactive monitoring, automated operations, and rigorous security & compliance controls. This capability is validated across multiple client environments, including MSSQL, MySQL, Azure SQL, PostgreSQL, Oracle, Snowflake, MongoDB, and more.

Service Features (What Mphasis Delivers)

1. 24x7 Proactive Monitoring & Incident Management

- Real-time monitoring via LogicMonitor, PagerDuty, and integrated infra tools.
- Alerts acknowledgment, incident categorization, logging and escalation in ServiceNow.
- Tiered support model: **L1 (24x7), L2/L3 (24x5 with P1/P2 on-call)**.

2. Database Administration (DBA) – BAU Support

- End-to-end database lifecycle tasks: install, configure, upgrade, migrate, decommission.
- Monthly patching, major/minor upgrade execution.
- Routine user/permissions administration, access provisioning & security hardening.
- Capacity planning & utilization monitoring.

3. Backup, Recovery & DR Management

- Daily backup validation across Commvault, Veeam, Metallic, Wasabi.
- Escalation & remediation of failed backup jobs.
- Annual DR (Disaster Recovery) drill support.

4. Database Performance & Optimization Services

- Performance tuning & SQL optimization.
- High Availability (HA) configuration – SQL Always-On, clustering, replication.
- Fine-tuning configurations, indexing strategies and capacity optimization.

5. Compliance & Security Management

- Vulnerability assessment, patch advisory, policy compliance checks.
- Database access management & periodic user access reviews.
- Audit reporting and governance controls.

6. Multi-Technology, Cross-Skill Support

Support across enterprise database ecosystems:

- **Relational:** MSSQL, Oracle, PostgreSQL, MySQL
- **Cloud DBs:** Azure Managed SQL, Aurora, Snowflake
- **NoSQL:** MongoDB, Cassandra
- **Tools:** SSIS, GoldenGate, LogicMonitor

7. Incident, Problem & RCA Support

- Root cause analysis for recurring failures.
- Preventive maintenance recommendations.
- Stabilization of noisy workloads & bottleneck reduction.

8. Structured L1 → L2 → L3 Escalation Framework

- SOP-driven triage, issue prioritization, escalation workflows.
- Integration with client ITSM systems for traceability.

Benefits of Mphasis Database Management Support

1. Higher Availability & Faster Recovery

- Proactive monitoring reduces outages.
- HA + DR configuration improves resilience.
- Backup validation prevents data-loss events.

2. Lower Operational Cost & Reduced Dependency on Client DBAs

- Cross-skilled DBAs reduce technology silos.
- 24x7 global model optimizes staffing & eliminates on-prem dependency.
- In many engagements, client teams gained bandwidth for transformation programs.

3. Improved Performance & User Experience

- SQL tuning, resource optimization and fix-packs improve application performance.
- Minimization of long-running queries and deadlocks.

4. Strong Governance, Compliance & Security Posture

- Continuous patching & hardening.
- Access governance reduces compliance risks (FDIC, internal audit, regulatory environments).

5. Reduced Mean Time to Restore (MTTR)

- Faster incident resolution via SOPs and L1 automation.
- L2/L3 escalation and SME involvement ensure rapid stabilization.

6. Scalable, Flexible Support Across Database Platforms

- Support for growing environments (e.g., 400–5000+ DB instances).
- Ability to onboard new DB flavors as client landscape evolves.

7. Verified Success Across Large Global Clients

Examples from internal case decks show:

- 100% SLA compliance for 8 years in a multi-DB environment.
- Reduced backup failures & eliminated bottlenecks in SQL/NoSQL estates.
- High-impact tuning delivering >2M CPU-seconds saved annually.

Case Study: Multiple Database Technologies DBA support

The Business Requirement



- Need 24*7 support for SQL Server, Snowflake, MongoDB, PostgreSQL and Oracle
- Multi skill DBAs

Our Approach



- Onboard SME for each technology
- Groom resources on technologies at mid to expert level along with their primary skill set
- Every team member was made aware of processes and SLAs
- Single person to handle weekend shift
- End-to-end support comprising server build to server decommissioning
- 90% of work done by Onshore and offshore Mphasis resources
- The Remaining 10% of the work comprises project related is done by client resources to comply with guidelines by FDIC

Key Benefits



- 100% SLA complaint, no penalty for last 8 year
- Trained resources on multiple technologies reduce overall cost
- Dynamic adaptation to increasing workload and new technology
- More bandwidth to client DBAs for project work and multifold increase in Mphasis headcount and work

Services Featured



- DBA BAU Support
- Cloud

Technologies



- Snowflake
- SQL Server
- MongoDB
- PostgreSQL
- Oracle

Challenges



- Getting resources who can work on multiple technologies
- Resource training



Case Study: Database Upgradation/Migration for Leading Bank in US

The Business Requirement



- Identify servers and databases to be upgraded
- Upgrade existing 450 SQL Server instances from SQL Server 2008 R2/2012/2014 to SQL Server 2016/2019

Our Approach



- Automated centralized SSIS package to capture object-level access by user/application with query and hostname.
- Assess database resource utilization, growth and future demand.
- Identified servers/databases to be upgraded/consolidated using captured information on user activity and resource utilization
- Feasibility to downgrade SQL edition and consolidation to save license cost
- Through database and server decommissioning, substantial man hours and \$ amount have been saved

Key Benefits



- Out of 450 servers, 45% have been Consolidated/Decommissioned and 35% have been upgraded
- Performance benchmarking for the new environment
- Database activity history helped minimize the impact on the users and application post- upgrade
- End to End solution covering new server build to old server decommissioning

Services Featured



- Database Upgradation
- Database Migration

Technologies



- Microsoft SQL Server 2008 R2
- Microsoft SQL Server 2012
- Microsoft SQL Server 2014
- Microsoft SQL Server 2016
- Microsoft SQL Server 2019
- Snowflake

Challenges



- Capturing user activity and resource utilization for decision-making
- Identifying unused servers/databases to mark for decommissioning
- Coordinate with multiple teams for a smooth upgrade



Case Study: Database Cloning for Analysis and Reporting

The Business Requirement



- Production databases should be available for reporting/development in a lower environments
- T-1 data available every morning for 350 + databases over 50 serves across multiple environment
- Different sets of users should have access to each database to perform their activities

Our Approach



- Storage level replication used to copy data across the environment
- Control-M jobs to set the flow of the data for different layers
- Developed customized scripts to manage access security at the database and object level
- Dedicate resource to monitor 500+ TB data is made available on time to end users
- SSRS dashboard created for end users to show status at each stage

Key Benefits



- Reduced significant time to clone database from production to lower environment
- Transparent process for end users with a dynamically updated dashboard
- Reduction in the number of resources required to work on cloning

Services Featured



- Database Cloning.

Technologies



- MS SQL Server
- PowerShell
- NetApp
- Ansible
- Control-M

Challenges



- Taking Database backup copies over the network and restoring is a lengthy process
- Integrate storage, windows and database layers in one job flow
- Each database needs a different set of users



Case Study: Performance Optimization and User Knowledge Enrichment

The Business Requirement (Mphasis Initiated)



- Proactive performance monitoring
- User knowledge enrichment
- Enterprise cost saving

Our Approach



- Identify long-running, resource-intensive queries
- Share revised queries with optimized plans and performance metrics to the user
- Shared comparatively analyzed query and optimized query plan to user
- Communication is kept one-to-one and friendly
- Enrich user knowledge with best query writing practices and techniques

Key Benefits



- Greatly reduced bad queries in the cloud environment
- Substantial savings in terms of computing, I/O and time
- Approximately \$50000 in saving has been achieved in the last 8 months

Services Featured



- Performance Optimization
- Query Tuning
- User knowledge enrichment

Technologies



- Snowflake
- MS SQL Server
- PostgreSQL

Challenges



- Help users understand the difference between on-prem and cloud databases
- Query optimization without indexes



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

