



## DATABASE MIGRATION TO AMAZON DBAAS

Helping Organizations Leverage Database-as-a-Service to Cut Costs and Gain Greater Flexibility and Scalability.

### PIVOT'S UNIFIED PORTFOLIO OFFERING

Through our Unified Portfolio, we deliver solutions across the full lifecycle of our customer's technology investments.

#### SERVICE CHANNELS

- Integration
- Professional
- Deployment
- Workforce
- Managed

#### SOLUTION DISCIPLINES

- Workplace Experience
- Application Modernization
- Network Optimization
- Security Fortification
- Cloud & Datacenter Transformation
- Customer Experience

#### SERVICES VALUE STREAM

- → → →
- Assess Design Implement Manage Optimize

The database is an ideal candidate for migration to the cloud. Organizations must dedicate IT resources to maintaining the physical infrastructure needed to support their databases and for handling backups, installing security updates, and scaling storage resources. By leveraging a hosted, Database-as-a-Service (DBaaS) platform, organizations can shift those responsibilities to the cloud service provider.

DBaaS delivers all the classic cloud benefits — minimal capital investments, rapid deployment, reduced operational overhead and near-infinite scalability to support rampant data growth. Gartner has predicted that 75 percent of all databases will be deployed or migrated to a cloud platform by 2023, with only 5 percent ever considered for repatriation to an on-premises platform.

Architecting a cloud-based database, migrating data and retooling operational processes requires significant expertise. Pivot Technology Services can help with focused services dedicated to migrating databases to the Amazon public cloud. With expertise in cloud-based platforms as well as the design, architecture and implementation of traditional data center infrastructure, we help organizations successfully transition to a DBaaS solution.

Our experienced architects and engineers assess the current database environment and analyze business requirements. We then develop a migration plan and leverage Amazon and third-party migration tools to minimize downtime and reduce business risk.

Key activities include:

- ▶ Database / application discovery and requirements analysis
- ▶ Database architecture review and TCO analysis
- ▶ High-level design, migration readiness assessment and planning
- ▶ Tools definition for migration, automation and orchestration
- ▶ Proof of Concept and migration demonstration
- ▶ Migration modeling and wave planning
- ▶ Creation of an automated migration factory
- ▶ Migration with performance and success measurements and optimization
- ▶ IT operational transition for runbooks, change management processes and tools



Pivot's database migration services are delivered by our Cloud Transformation practice, leveraging a data-driven, five-step framework. Our team enables a strategic approach to database transformation while ensuring that operational requirements continue to be met.

## Amazon DBaaS Solutions

**Amazon Aurora** is a highly available and secure relational database service that is compatible with MySQL and PostgreSQL. Built for the cloud, it provides significantly greater performance than standard on-premises databases, and features distributed, fault-tolerant, self-healing storage that can automatically scale up to 64TB per database instance.

**Amazon Relational Database Service (RDS)** enables easy setup, operation and scaling of databases leveraging any of five familiar database engines: MySQL, PostgreSQL, MariaDB, Oracle and Microsoft SQL Server. Amazon RDS also provides administration for Amazon Aurora by handling routine database tasks such as provisioning, patching, backup and recovery, failure detection, and repair.

**Amazon DocumentDB** is a fully managed NoSQL document database service that is compatible with MongoDB.

**Amazon Redshift** is a data warehouse solution that makes it possible to query petabytes of structured and semi-structured data from an Amazon S3 data lake using standard SQL.

## Key Benefits

**Database Modernization.** Automation and orchestration tools eliminate time-consuming and error-prone manual processes, enabling faster deployment, simplified administration and optimal use of resources. They also allow for standardization, ensuring that databases are provisioned consistently in accordance with best practices.

**Reduced Costs and Operational Overhead.** DBaaS eliminates the need for on-premises equipment, software licenses, network infrastructure, and the associated space, power and cooling costs. By some estimates, DBaaS can reduce costs by up to 35 percent compared to a comparable on-premises platform. It also reduces IT operational overhead, freeing up personnel for new initiatives.

**Performance at Scale.** The cloud provides the elasticity to manage the explosive growth of data more efficiently, and allows the use of scaling policies to accommodate spikes in demand for database resources. This helps ensure that databases are always running at peak performance.

**Availability and Remote Access.** Service providers typically offer SLAs specifying minimum response times and availability, and operate backup data center facilities with automated failover to ensure that SLAs are met. DBaaS can also accommodate user demand for remote access to database resources.

**Developer Agility and Containerization.** Organizations can create self-service catalogs that enable software developers to provision and deactivate databases without assistance from IT. Many DBaaS platforms use a multitenant container model that can run multiple databases on a shared operating system.

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