Cassandra to Azure Cosmos DB Migration Offering

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Microsoft Partnership Overview

- ✓ Gold Partner

- ✓ 13+ Years of Experience

- ✓ 50+ Successful migrations to Azure

- ✓ 500+ Customers (Managed Services)

- ✓ 550+ Microsoft Certifications

- ❖ Cloud Enablement graduate

- ❖ ECIF Enabled (US and CAN)

- ✓ Recognized in 2017 by Microsoft as Cloud for Global Good Partner of the Year

- ✓ Our largest practice: SQL Server

- ✓ Datavail's Microsoft Business Unit: Application Development & Modernization using Azure stack / Azure DevOps

- ✓ Co-sell Ready Program

- ✓ Azure Expert MSP - (in process)

- ✓ Linux and Open Source Database Migration to Azure (Targeted 9/2021)

- ✓ Gold Competency
  - Application development
  - Cloud Platform
  - DevOps
  - Collaboration and Content
  - Data Analytics
  - Messaging
  - Cloud Productivity
  - Application Integration

Why chose Datavail for migrating Cassandra to Azure Cosmos DB?

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Experience & Trust

1000+ Data, Analytics and Development experts

Relationship Focused
(700 active clients in N. America)

Average client relationship of 7 years

Cloud & Data Leaders

World Leaders with **200,000+ Db** and **200+ Petabytes** of data under management

200+ cloud migrations and **50+ modernizations** in the past 2 years

Strong Partnership
Azure

Longevity

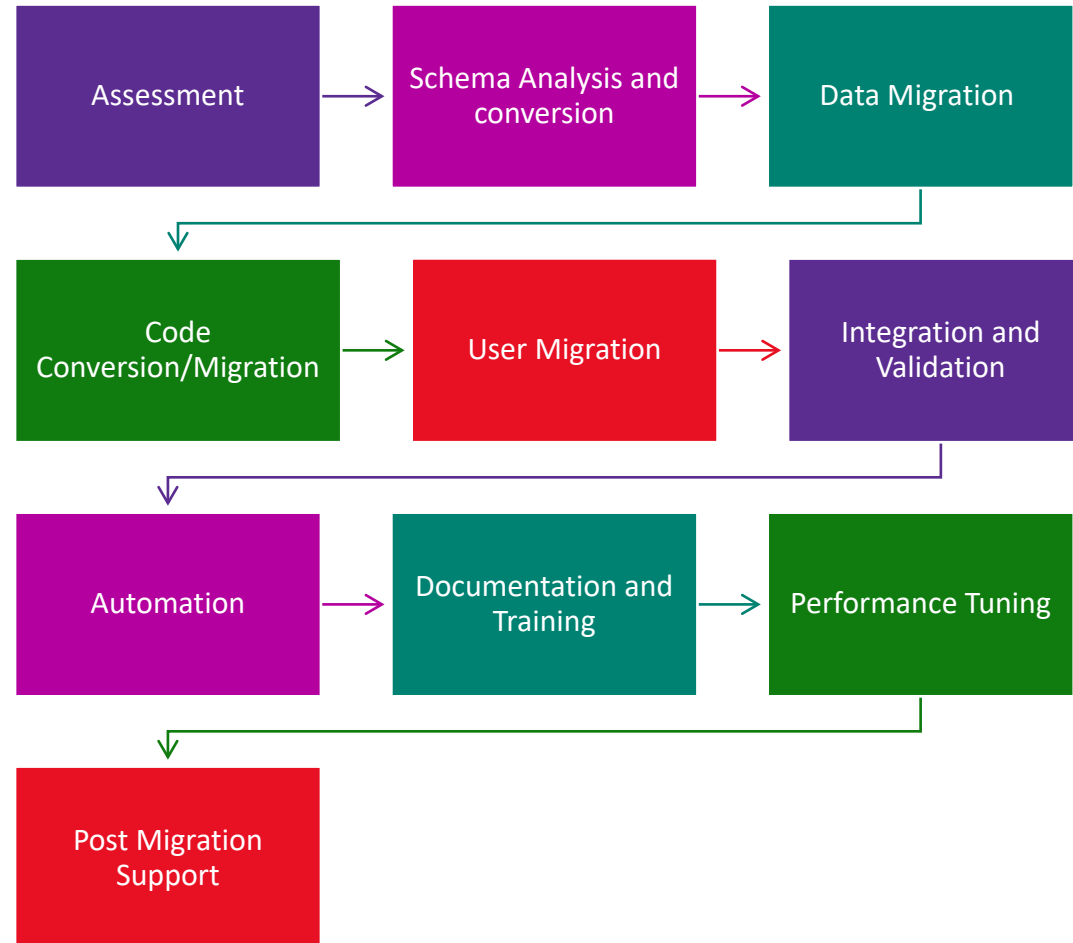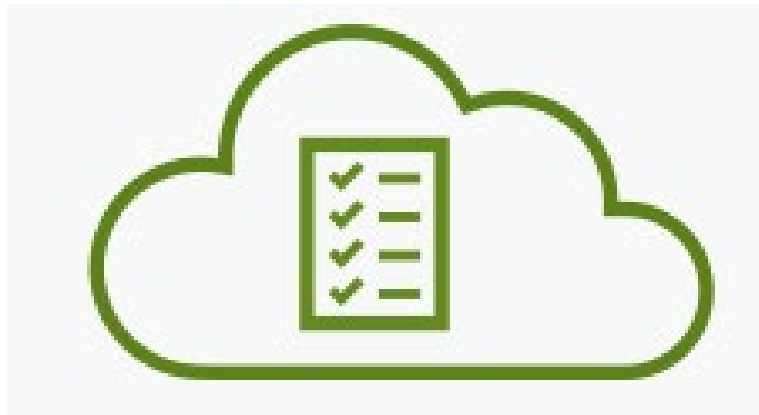Database Experts avg **20 years** experience & Dedicated Cassandra team

Low Offshore Turnover
(<8% vs industry avg 31%)

15 years managing and optimizing databases

Understand Business & Technology Drivers, Solution & Outcomes from Datavail's Migration Engagement

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Understand Business / Technology Drivers

Common reasons for Migrating to Cosmos DB:

- Other workloads are already in Azure
- Enterprise licensing cost for Cassandra
- Azure Cosmos DB API for Cassandra: Plug-and-play implementation with existing Cassandra compatible code (by just changing a connection string)
- Global distribution and availability
- No operations management
- Open-source standard
- Choice of consistency
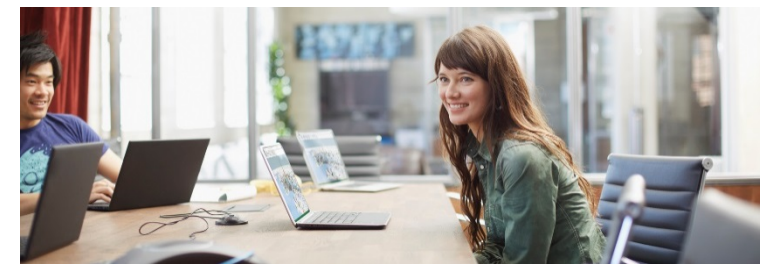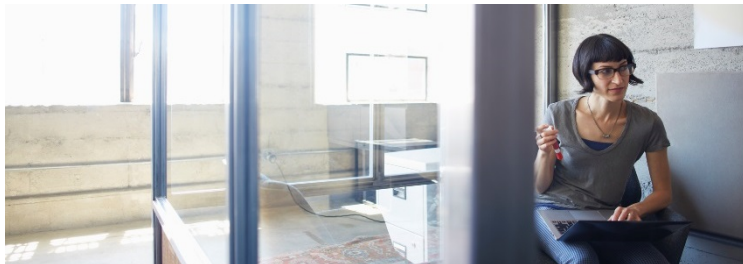- Enterprise grade

Solution / Design

Why Choose Cosmos DB over Cassandra:

- Improved availability (unless moving to tier M30)
- Automatic scaling – regardless of which tier
- Customer support – included with all Azure support plans
- Pay-as-you-go Model
- Indexes Data Automatically
- Multi-Consistency Support
- Consistence model

Desired Outcomes / Deliverables

Overview for Cassandra Migration to Cosmos DB:

- Pre-migration discovery
    i. Create a data estate migration spreadsheet
    ii. Discover existing Cassandra data estate resources
- Pre-migration assessment
    - Pre-migration mapping
    - Plan the Azure Cosmos DB Data Estate

Total cost for above: Small: $10,000, Medium: $15,000, Large: $20,000 (complexity/size is determined during call with customer)

- Migration phase: Cost based on assessment

Datavail Delivers Cosmos DB: Migration Phases

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Our Project managers will be with you each step of the way, building out a Gantt chart for dependencies, ensuring we establish achievable milestones, and track dependencies.

Pre-migration Discovery	Pre-Migration Assessment & Planning	Migration	Post Migration

Discovery Phase: 1-2 Weeks

- Assess the existing environment- pain points and usage
- Determine the shard key for your future Cosmos DB environment
- If currently sharding in Cassandra environment, this will be adjusted to address expected good keys
- Prep for Migration Plan – scope
- Determine needs for migration scripts – dump and load, or migration toolkit

Planning Phase: 3-5 Weeks

- Test Cases (POC) and code compatibility testing with your team
- Goals and Objectives
- Cost Analysis
- Resource Planning
- Build a Migration Solution
- Schedules and Milestones
- Risk Mitigation/Contingency Plan
- Communication Protocols

Migration Phase: 5-8 Weeks

- Configure target database environment
- Automation is key for repeatability and checking success and problem areas
- Migration includes validation using custom scripts
- Assist customer during application testing

Cutover & Post Migration Phase:

- Incremental Migration if needed
- Offline Cutover with minimal downtime
- Post-checks will determine success/failover as well as any additional post-migration work
- Data Quality and Management
- Run Performance Tests
- Lessons learned documentation
- Operational Support

Case Studies

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Automobile Customer

Datavail migrated large Cassandra cluster to cloud using replication method. This was achieved with near zero downtime

Food Processing Company

Datavail migrated 15 DC with 10 nodes each clusters to the cloud for a Food processing company. This migration required a phased approach with build books for pre and post migration.

Media Customer

Datavail migrated a DataStax Standard Edition with Apache Solr cluster to the cloud for a Media company. Automation was developed for migrating historical data and perform data validation post migration.

"You guys really went above and beyond and migrated this critical Database in a timely manner. I can tell you're committed to our expectations, and your team, and I really appreciate it."
- Senior DB Manager, Fortune 500 Financial and Brokerage Firm.